National Park Service Annual Science Report

1989 INVENTORY OF RESEARCH ACTIVITIES IN THE NATIONAL PARKS

Anne Frondorf, Managing Editor

Science Report NPS/NRWV/NRSR-90/02
September 1990

United States Department of the Interior
National Park Service
Washington D.C.

CONTENTS

Alaska Region 1

Mid-Atlantic Region 27

Midwest Region 74

North Atlantic Region 110

National Capital Region 125

Pacific Northwest Region 132

Rocky Mountain Region 169

Southeast Region 233

Southwest Region 280

Western Region 308

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	ANIA	Limnological Studies of Surprise Lake	Larson, G. L. Oregon State University College of Forestry Cooperative Park Studies Unit Corvallis, OR 97331 Phone: (503)737-2043	75	09/90	25,000 0
AR	ANIA	Density and Structure of a Hunted Population of Brown Bears at Black Lake Alaska	Sellers, R. A. Alaska Dept. Fish and Game P.O. Box 37 King Salmon, AK 99613 Phone: (907)246-3340	40	12/97	36,000 102,000
AR	CAKR	Cape Krusenstern/Red Dog Road Caribou Survey	Ayres, Ms. L. A. National Park Service P.O. Box 1029 Kotzebue, AK 99752 Phone: (907)442-3890	0	00/99	0 0
AR	CAKR	1989 Aerial Waterfowl Surveys	Bunn, Mr. R. 2727 Main Colorado Springs, CO 80907 Phone: (719)473-2710	0	00/99	0 0
AR	CAKR	Reconnaisance studies of the coastal lagoons of Cape Krusenstern National Monument, Alaska.	Ford, J. Environmental Protection Agency 200 SW 35th St. Corvallis, OR 97333 Phone: (503)753-6221	75	06/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	DENA	Population status and calf mortality of the Denali caribou herd, Denali National Park and Preserve, Alaska.	Adams, L. G. National Park Service 2525 Gambell, Room 107 Anchorage, AK 99503 Phone: (907)257-2569	50	00/92	160,000 0
AR	DENA	Significance of scent-marking in Alaskan moose.	Bowyer, R. T. University of Alaska Institute of Arctic Biology 211 Irving Building Fairbanks, AK 99775 Phone: (907)474-5311	85	00/92	500 10,000
AR	DENA	Monitoring the Drunken Forest and other mass movements in Denali National Park and Preserve.	Brease, P. National Park Service Office of Resources & Planning P.O. Box 9 Denali Park, AK 99755 Phone: (907)683-2294	0	00/99	5,000 0
AR	DENA	Brown bear population and habitat ecology.	Dean, Dr. F. University of Alaska Dept. of Biology & Wildlife 211 Irving Building Fairbanks, AK 99775-1280 Phone: (907)474-7672	0	00/99	0 4,100
AR	DENA	Riparian ecosystem recovery on a watershed disturbed by placer mining.	Densmore, Dr. R. National Park Service P.O. Box 9 Denali National Park, AK 99755 Phone: (907)683-2294	0	00/99	40,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	DENA	Restoration of alpine and subalpine plant communities in areas disturbed by construction.	Densmore, Dr. R. National Park Service P.O. Box 9 Denali National Park, AK 99755 Phone: (907)683-2294	30	00/92	0 60,000
AR	DENA	Clonal demography and architecture of Setchell willow (Salix setchelliana) along Alaskan glacial rivers.	Douglas, Dr. D. Boise State University Biology Dept. Boise, ID 83725 Phone: (208)385-3561	95	00/92	0 1,618
AR	DENA	Evaluation of mined and unmined streams in the Kantishna Hills region.	Emmett, W. W. U.S. Geological Survey MS 413 P.O. Box 25046, Federal Center Denver, CO 80225-0046 Phone:	10	00/99	20,000 0
AR	DENA	Sediment transport in the Toklat River, Denali National Park.	Emmett, W. W. U.S. Geological Survey MS 413 P.O. Box 25046, Federal Center Denver, CO 80225-0046 Phone:	100	09/89	40,000 8,000
AR	DENA	Socio-ecological dynamics of wolf/bear-ungulate systems.	Haber, Dr. G. C. P.O. Box 64 Denali National Park, AK 99755 Phone: (907)337-7778	0	00/99	0 50,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	DENA	Replenishment potential for gravel removal sites for the Toklat River, Alaska.	Karle, K. F. National Park Service Denali National Park P.O. Box 9 Denali National Park, AK 99755 Phone: (907)683-2294	100	05/90	13,000 2,000
AR	DENA	The role of mycorrhizae in succession on placer-mined sites.	Laursen, G. University of Alaska School of Ag. Sci. & Land Res. Mgt. Fairbanks, AK 99775 Phone:	0	00/91	8,800 0
AR	DENA	Preliminary investigations for developing a long-term monitoring program for nesting Golden Eagles (Aquila chrysaetos); and raptor inventory and monitoring.	McIntyre, C. L. National Park Service P.O. Box 9 Denali National Park, AK 99755 Phone: (907)683-2511	60	09/91	40,000 0
AR	DENA	Demography and distribution of wolves, Denali National Park and Preserve, Alaska.	Mech, Dr. L. D. National Park Service P.O. Box 9 Denali National Park, AK 99755 Phone: (907)683-2294	67	10/92	125,000 0
AR	DENA	Use and selection of lambing habitat by Dall's sheep.	Rachlow, J. L. University of Alaska Dept. of Biology & Wildlife 211 Irving Building Fairbanks, AK 99775-1780 Phone: (907)474-5311	100	07/89	4,500 1,650

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	DENA	Merlin monitoring and ecology studies.	Schempf, Mr. P. F. U.S. Fish and Wildlife Service Raptor Management Studies P.O. Box 021287 Juneau, AK 99802 Phone: (907)586-7243	0	00/99	3,000 16,800
AR	DENA	Cellular slime molds in soils of Alaskan tundra.	Stephenson, Dr. S. L. Fairmont State College Department of Biology Fairmont, WV 26554 Phone: (304)366-9224	25	01/92	0 500
AR	DENA	Natural regulation of surface water quality by geomorphology and vegetation, Denali National Park and Preserve.	Stottlemeyer, R. Michigan Technological University Department of Biology Houghton, MI 49931 Phone: (906)487-2478	95	02/90	4,000 0
AR	DENA	Denali road traffic impact on wildlife.	Taylor, D. National Park Service Division of Natural Resources 2525 Gambell St., Rm 107 Anchorage, AK 99503-2892 Phone: (907)257-2571	75	04/90	8,000 0
AR	DENA	Ecology of moose at Denali National Park and Preserve.	Van Ballenberghe, V. U.S. Fish & Wildlife Service 201 East 9th Ave. Suite 206 Anchorage, AK 99501 Phone: (907)271-2575	50	00/99	0 15,500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	DENA	Bathymetry and stratigraphy of Wonder Lake, a glacial lake in Denali National Park and Preserve, Alaska.	Werner, Dr. A. Mount Holyoke College Department of Geology South Hadley, MA 01075 Phone: (413)538-2134	30	01/92	0 4,500
AR	GAAR	Population ecology of wolves in Gates of the Arctic National Park and Preserve	Adams, Mr. L. G. National Park Service Alaska Regional Office 2525 Gambell St. Anchorage, AK 99503-2892 Phone: (907)257-2569	70	06/91	0 0
AR	GAAR	Monitor Furbearer Harvest	Britten, Mr. M. W. National Park Service P.O. Box 74680 Fairbanks, AK 99707 Phone: (907)456-0281	15	09/00	0 0
AR	GAAR	Survey for peregrine falcons and other cliff-nesting raptors in GAAR	Britten, Mr. M. W. National Park Service Gates of the Arctic NP&P P.O. Box 74680 Fairbanks, AK 99707 Phone: (907)456-0281	50	12/92	0 0
AR	GAAR	Gates of the Arctic National Park Lake Study	Johnson, Mr. R. U.S. Fish & Wildlife Service 101-12th Ave. P.O. Box 20 Fairbanks, AK 99701 Phone: (907)456-0287	80	12/90	1 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	GAAR	Limnological assessment of Itkillik Lake, Brooks Range, Alaska	Jones, Dr. J. R. University of Missouri School of Nat. Resources 112 Stephens Hall Columbia, MO 65211 Phone: (314)882-3543	60	08/90	0 1,979
AR	GAAR	Central Arctic Management Area (Mineral and Hydrocarbon Assessment)	Kelly, Dr. J. S. U.S. Geological Survey Branch of Alaskan Geology 4200 University Dr. Anchorage, AK 99508-4667 Phone: (907)561-1181	75	09/92	0 0
AR	GAAR	Killik-Chandler Lake geological mapping	Mull, Dr. C. G. Alaska Div. of Geological Surveys 3700 Airport Way Fairbanks, AK 99709 Phone: (907)474-7147	80	12/92	0 0
AR	GAAR	Analysis of Fold and Thrust Belt Kinematics in the Central Brooks Brooks Range, Northern Alaska	Oldow, Dr. J. S. Rice University Dept. of Geology and Geophysics P.O. Box 1892 Houston, TX 77251 Phone: (713)527-4880	50	07/90	0 0
AR	GLBA	Sea Otter Monitoring	Beckert, E. National Park Service P.O. Box 22 Gustavus, AK 99826 Phone: (907)697-2277	0	00/99	1,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	GLBA	Survey of Kittiwake Colonies	Beckert, E. National Park Service P.O. Box 22 Gustavus, AK 99826 Phone: (907)697-2277	0	00/99	0 0
AR	GLBA	1989 Salmon Stream Surveys	Blackie, B. Glacier Bay National Park Service P.O. Box 140 Gustavus, AK 99826-0140 Phone: (907)697-2230	0	00/99	7,000 0
AR	GLBA	Beach use by Black Bear in east Glacier Bay	Blackie, B. Glacier Bay National Park Service P.O. Box 140 Gustavus, AK 99826-0140 Phone: (907)697-2230	0	00/99	11,000 0
AR	GLBA	Controls over primary succession at Glacier Bay, Alaska	Chaplin, III, F. S. University of California Dept. of Integrative Biology Berkeley, CA 94720 Phone: (415)642-1003	50	09/91	0 25,000
AR	GLBA	Characteristics and settling rates of suspended sediment in a macro-tidal environment.	Cowen, Dr. E. A. Appalachian State University Department of Geology Boone, NC 28608 Phone: (704)262-2260	15	12/90	0 5,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	GLBA	Multiple pathways of primary succession at Glacier Bay National Park	Fastie, C. University of Alaska - Fairbanks Institute of Arctic Biology Fairbanks, AK 99775 Phone: (907)474-6688	70	09/90	0 0
AR	GLBA	Grounding line systems of modern temperate tidewater glaciers and their effect on glacier stability.	Hunter, L. Northern Illinois University Chicago, IL Phone: ( ) -	33	09/90	0 0
AR	GLBA	Beach debris and bird/mammal carcass survey	Johnson, S. National Marine Fisheries Service Auke Bay Labortories Juneau, AK 99826 Phone: ( ) -	0	00/99	1,000 500
AR	GLBA	Wildlife and vessell inventory of the Beardslee Islands in Glacier Bay	Maier, A. 16995 Glacier Highway Juneau, AK 99801 Phone: ( ) -	100	08/89	0 0
AR	GLBA	Survey of the 1989 Bald Eagle population in the Beardslee Islands	Maier, A. 16995 Glacier Highway Juneau, AK 99801 Phone: ( ) -	100	08/89	0 0
AR	GLBA	Nesting ecology of the Black Oystercatcher (Haematopus bachmani) in the Beardslee Island.	Maier, A. 16995 Glacier Highway Juneau, AK 99801 Phone: ( ) -	100	08/89	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	GLBA	Killer whale abundance and feeding behavior in Glacier Bay and Icy Strait, Alaska.	Matkin, D. R. P.O. Box 22 Gustavus, AK 99826 Phone: (907)697-2277	0	00/99	6,000 6,000
AR	GLBA	1989 Beardslee Island Survey	Matkin, D. R. Glacier Bay National Park P.O. Box 22 Gustavus, AK 99826 Phone: (907)697-2277	100	00/99	6,000 0
AR	GLBA	Salmon stream surveys in Glacier Bay National Park	Milner, Dr. A. University of Alaska Institute of Arctic Biology Fairbanks, AK 99775 Phone: (907)345-4643	100	12/89	2,000 0
AR	GLBA	Colonization and ecological development of new streams	Milner, Dr. A. University of Alaska Institute of Arctic Biology Fairbanks, AK 99775 Phone: (907)345-4643	0	00/99	0 2,000
AR	GLBA	Glacier Bay Eagle/Eagle Nest Survey	Mow, J. National Park Service P.O. Box 22 Gustavus, AK 99826 Phone: (907)697-2277	0	00/99	1,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	GLBA	Sedimentary environments fed by terrestrially-grounded glaciers.	Phillips, A. C. University of Illinois at Chicago Dept. Geological Science m/c 186 P.O. Box 4348 Chicago, IL 60680 Phone: ( ) -	100	08/90	0 35,000
AR	GLBA	Harbor Porpoise Baseline Survey	Prather, S. National Park Service P.O. Box 22 Gustavus, AK 99826 Phone: (907)697-2277	33	12/91	6,000 0
AR	GLBA	Humpback whale monitoring	Schroeder, M. National Park Service P.O. Box 140 Gustavus, AK 99826-0140 Phone: (907)697-2230	100	11/89	11,000 6,000
AR	GLBA	Install remote automatic weather station on Russell Island	Schroeder, M. Glacier Bay National Park Service P.O. Box 140 Gustavus, AK 99826-0140 Phone: (907)697-2230	95	12/89	9,000 0
AR	GLBA	Marine intertidal community development following glacial recession in Glacier Bay, Alaska	Sherman, L. University of Alaska Institute of Marine Science Fairbanks, AK 99775 Phone: (907)474-7747	90	12/91	0 833

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	GLBA	Glacier Geology of the Burroughs Glacier	Syverson, K. University of Wisconsin Department of Geology 1215 W. Dayton Street Madison, WI 53706 Phone: (608)262-7863	0	00/99	0 4,000
AR	GLBA	Burroughs Glacier Recording Team	Syverson, K. University of Wisconsin Dept. of Geology and Geophysics 1215 W. Dayton Street Madison, WI 53706 Phone: (608)262-7863	40	08/90	0 4,000
AR	GLBA	Cruise Ship Stack Emissions	Vequist, Mr. G. National Park Service 2525 Gambell Street Anchorage Regional Office Anchorage, AK 99503 Phone: ( ) -	100	12/89	0 0
AR	GLBA	Brown Bear Project	Wolfe, D. Biological Technician P.O. Box 1572 Anchorage, AK 99510 Phone: ( ) -	60	10/89	15,000 0
AR	KATM	Oil Spill Cleanup Response, Shoreline Surveys	Alaska Dept. of Environmental Cons. Kodiak Oil Spill Response Office P.O. Box 2998 Kodiak, AK 99615 Phone:	70	07/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	KATM	Exxon Winter Program, Shoreline Monitoring and Evaluation Program	Exxon Operations 3201 "C" Street, #403 Anchorage, AK 99503 Phone: (907)564-3669	0	06/90	0 0
AR	KATM	Oil Spill Cleanup Response, Shoreline Surveys	Alaska Dept. of Environmental Cons. Kodiak Oil Spill Response Office P.O. Box 2998 Kodiak, AK 99615 Phone:	70	07/90	0 0
AR	KATM	Genetic Stock Identification of Bristol Bay, Alaska Salmon Stocks	Bailey, R. U.S. Fish and Wildlife Service Fisheries Management Services 1101 E. Tudor Road Anchorage, AK 99503 Phone: (907)786-3546	30	08/90	0 0
AR	KATM	Novarupta Geophysical Project	Eichelberger, J. C. Sandia National Laboratories Geochemistry Division, 6233 P.O. Box 5800 Alburquerque, NM 87185 Phone: ( ) -	40	09/94	0 450,000
AR	KATM	Comparison of human impacts on bear behavior and sex ratios at Salmon Streams in Katmai NP&P, Alaska	Gilbert, B. K. Utah State University Logan, UT 84322-5210 Phone: (801)750-2540	95	00/99	6,000 2,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	KATM	Water Quality Baseline Study	La Perriere, Ms. J. NPS-Water Resources Division 138 Arctic Health Research Bldg. Alaska Coop. Fish. Rsch. Fish. Unit Fairbanks, AK 99775-0110 Phone: ( ) -	10	09/92	135,000 0
AR	KATM	Alaska Volcanic Hazards	Miller, Dr. T. P. U.S. Geological Survey Alaska Volcano Observatory 4200 University Dr. Anchorage, AK 99508 Phone: (907)561-1181	100	06/89	0 35,000
AR	KATM	Rainbow Trout Biological Sampling	Minard, R. E. Division of Sport Fish Alaska Dept of Fish and Game P.O. Box 230 Dillingham, AK 99576 Phone: (907)842-2427	0	00/99	0 8,000
AR	KATM	Exxon Valdez Cultural Resources Program	Mobley, C. M. Exxon Valdez Cultural Resource Prog P.O. Box 240409 Anchorage, AK 99524-0409 Phone: (907)564-3658	75	07/90	0 0
AR	KATM	Late Quaternary Volcanic and Glacial Stratigraphy at Windy Creek, Katmai National Park, Alaska	Pinney, D. S. University of Alaska Dept. Geology/Geophysics Fairbanks, AK 99775 Phone:	70	09/90	0 4,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	KATM	Kodiak/Katmai Crustal Strain Project	Prescott, W. U.S. Geological Survey MS977 345 Middlefield Road Menlo Park, CA 94025 Phone:	5	00/99	0 62,500
AR	KATM	Annual moose sex and age composition trend surveys	Sellers, R. A. Alaska Dept. of Fish and Game P.O. Box 37 King Salmon, AK 99613 Phone: (907)246-3340	0	00/99	0 2,000
AR	KATM	Assessment of the Exxon Valdez oil spill on brown bear populations on the Alaska peninsula	Sellers, R. A. Alaska Dept. of Fish and Game P.O. Box 39 King Salmon, AK 99613 Phone: (907)246-3340	30	06/92	0 162,000
AR	KEFJ	Radio-Carbon Dating of Interstadial Trees	Calkin, P. State University of New York Department of Geology Amherst, NY 14226 Phone:	40	00/99	0 0
AR	KEFJ	Beetle Collection	Capogreco, J. V. Florida State University Biological Sciences Tallahassee, FL 32306-2043 Phone:	0	00/99	0 0
AR	KEFJ	Snow Survey Measurements	Clifford, B. Soil Conservation Service Anchorage, AK	100	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	KEFJ	Exxon Shoreline Cleanup Assessment	Dishon, B. VECO, Inc for Exxon Seward, AK 99664 Phone:	50	00/99	0 0
AR	KEFJ	Oil Injured Wildlife	Early, T. U.S. Fish and Wildlife Service 1101 Tudor Road Anchorage, AK 99503 Phone:	50	00/99	0 0
AR	KEFJ	Plant Succession Study by Exit Glacier	Helm, D. University of Alaska Agr. and Range Expt. Sta. 532 E. Fireweed Palmer, AK 99645 Phone:	5	00/99	0 0
AR	KEFJ	ARPA Permit for subsurface testing on Native-Select Land	Johnson, J. Chugach Alaska Corp. 3000 A St., Suite 400 Anchorage, AK 99503 Phone:	50	00/99	0 0
AR	KEFJ	Hydrocarbon Analysis in Mussel Tissue	Karinen, J. National Marine Fisheries Service P.O. Box 210155 Auke Bay, AK 99821 Phone:	70	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	KEFJ	Botanical Collections	Koropachinsky, I. Y. Central Siberian Botanical Garden Novosibirsk-90 USSR 630090 Phone:	50	00/99	0 0
AR	KEFJ	Botanical Collections	Krasnoborov, I. M. Central Siberian Botanical Garden Novosibirsk-90 USSR 630090 Phone:	50	00/99	0 0
AR	KEFJ	ARPA Permit for Subsurface Testing of Archeological Site	Mobley, C. Exxon/Valdez Cultural Prog 3201 C St. Anchorage, AK 99503 Phone:	50	00/99	0 0
AR	KEFJ	Botanical Collections	Murray, D. F. University of Alaska Museum Fairbanks, AK 99755-1200 Phone:	50	00/99	0 0
AR	KEFJ	Transect marking and specimen collection	Pasley, R. Alaska State Emergency Ctr P.O. Box 6000 Wasilla, AK 99669 Phone:	50	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	KEFJ	Shoreline transect markings and oil sampling	Pearson, L. A. Alaska Dept. of Environmental Cons. P.O. Box 1689 Seward, AK 99664 Phone:	50	00/99	0 0
AR	KEFJ	Botanical Collections	Skuortsov, A. C. Main Botanical Garden Botanicheskaya 4 Moscow, USSR 12727C Phone:	50	00/99	0 0
AR	KEFJ	Oil Spill Monitoring: Photos and Physical Measurements	Teal, A. Exxon USA 3201 C. St. Anchorage, AK 99503 Phone:	50	00/99	0 0
AR	KOVA	Demography and movements of wolves in relation to Western Arctic Caribou Herd in northwest Alaska.	Ballard, Mr. W. Alaska Dept. of Fish and Game P.O. Box 1148 Nome, AK 99762 Phone: (907)443-2271	50	09/91	0 0
AR	KOVA	Archeological Reconnaissance in the Great Kobuk Sand Dunes: Northwest Alaska	Stanford, D . J. Smithsonian Institute	100	08/89	0 0
AR	LACL	Hydrologic Resources and Hazards at Alaska Volcanoes	Brabets, T. U. S. Geological Survey 1209 Orca Street Anchorage, AK 99501 Phone: (907)271-4153	40	12/91	0 5,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	LACL	Tazimina River Rainbow Trout Study	Brookover, III, T. E. Alaska Dept. of Fish & Game P.O. Box 230 Dillingham, AK 99576 Phone:	95	09/90	0 4,300
AR	LACL	Complete Cataloging Museum Collection	Davies, Mr. G. National Park Service 2525 Gambell Street Anchorage, AK 99503 Phone: (907)257-2656	50	01/90	20,000 0
AR	LACL	Genetic Stock Identification of Salmon of Bristol Bay	Larson, J. Fish and Wildlife Service King Salmon Fishers Assist. Office P.O. Box 277 King Salmon, AK 99613 Phone: (907)246-3442	75	09/90	0 0
AR	LACL	Silver Salmon Creek Coho Salmon Monitoring Program	Nelson, D. C. Alaska Department of Fish & Game P.O. Box 3150 Soldotna, AK 99669 Phone: (907)262-9368	95	08/89	1 2,200
AR	LACL	Fire Management and Monitoring (Fire-Pro)	Rasmussen, B. Lake Clark National Park Port Alsworth, AK 99653 Phone: (907)781-2218	100	09/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	LACL	Red Salmon Fishery Study (Newhalen-Lake Clark Study area)	Roger, D. University of Washington School of Fisheries Seattle, WA 98195 Phone: (206)543-7838	95	09/89	0 0
AR	LACL	Comprehensive Baseline Determination of Chemical and Physical Characteristics and Primary Productivity of Lake Clark National Park and Selected Smaller Lakes, Lake Clark National Park and Preserve, Alaska	Stottlemyer, R. Michigan Technological University College of Sciences and Arts Department of Biological Sciences Houghton, MI 49931 Phone: Stottlemyer	95	05/90	0 0
AR	LACL	Mulchatna Caribou Herd	Twitchell, H. A. Lake Clark National Park Port Alsworth, AK 99653 Phone: (907)781-2218	50	00/99	0 0
AR	LACL	Moose Trend Area Monitoring	Twitchell, A. H. Lake Clark National Park Port Alsworth, AK 99653 Phone: (907)781-2218	100	11/89	15 0
AR	LACL	A Park/Preserve wide survey of bald eagle nesting sites was conducted in June of 1989.	Twitchell, H. A. National Park Service Lake Clark Port Alsworth, AK 99653 Phone: (907)781-2218	100	06/89	0 1,989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	LACL	Glacial Monitoring Program	Twitchell, H. A. National Park Service Lake Clark Port Alsworth, AK 99653 Phone: (907)781-2218	0	00/99	0 0
AR	LACL	Costal Baseline Inventory, Pre-Oil Impact Studies	Twitchell, H. A. Lake Clark National Park Port Alsworth, AK 99653 Phone: (907)781-2218	100	09/89	0 0
AR	NOAT	Tundra Swan Survey of the lower Noatak River basin	Ayres, Ms. L. A. National Park Service Northwest Alaska Areas P.O. Box 1029 Kotzebue, AK 99752 Phone: (907)442-2758	0	00/99	0 0
AR	NOAT	Dall Sheep Survey of the Baird Mountains in the Noatak National Preserve	Ayres, Ms. L. A. National Park Service Northwest Alaska Areas P.O. Box 1029 Kotzebue, AK 99752 Phone: (907)442-2758	45	00/99	0 5,500
AR	NOAT	Noatak River Raptor Survey	Ball, Mr. J. Z. 48663 Todd Eymann Road Mira Monte, CA 93641 Phone: (209)336-2366	25	00/99	1 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	NOAT	Demography of Noatak Grizzly Bears in Relation to Human Exploitation and Mining Development.	Ballard, Mr. W. B. Alaska Dept. of Fish & Game P.O. Box 1148 Nome, AK 99762 Phone: (907)443-2271	75	09/90	0 0
AR	NOAT	Small mammal inventory and demographic study, Noatak National Preserve, AK	Bradshaw, Mr. D. Mississippi State Univ. Resear. Ctr Stennis Space Center Nat. Space Tech. Lab, MS 39529 Phone: (601)688-3229	50	09/91	20,000 0
AR	NOAT	Air Quality Monitoring	Cahill, Mr. T. A. University of California Crocker Nuclear Lab Davis, CA 95616 Phone:	0	00/99	114 0
AR	NOAT	Northwest Alaska Areas Snow Survey	Clagget, Mr. G. Soil Conservation Service Snow Survey Unit 201 E. 9th Ave., Suite 300 Anchorage, AK 99501-3687 Phone: (907)271-2424	5	00/99	26 0
AR	NOAT	Mineral assessment in the Misheguk Mt and Avan Hill area	Light, Mr. T. D. U.S. Geological Survey 4200 University Dr. Anchorage, AK 99818 Phone: (907)786-7431	100	07/89	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	NOAT	Alaska Lepidoptera Survey	Philip, Dr. K. W. University of Alaska Institute of Arctic Biology Fairbanks, AK 99701 Phone:	50	07/95	1 0
AR	NOAT	Trends in surface water quality in Noatak National Preserve	Stottlemyer, Dr. R. National Park Service Michigan Technological University Great Lakes Area Resource Studies Houghton, MI 49931 Phone: (906)487-2025	15	06/89	0 4,300
AR	NOAT	Geologic studies of the Sinikanneyak Mt. and Copter Peak ophiolites.	Wirth, Mr. K. R. Cornell University Department of Geological Sciences Ithaca, NY 14853 Phone:	95	00/90	500 0
AR	WRST	Aerial Salmon Counts of Kijik River System, Tazimina River and Sucker Creek	Bill, D. Alaska Dept. of Fish & Game P.O. Box 37 King Salmon, AK 99613 Phone: (907)246-3340	95	09/89	0 0
AR	WRST	Evolutionary Investigation in the Genus Antennaria	Chinnappa, Dr. C. C. University of Calgary Department of Biological Sciences Calgary, Canada T2N1N4 Phone:	0	12/95	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	WRST	Effects of Grizzly Bear Digs on the Alpine Plant Communities of the Wrangell Mountains, Alaska.	Doak, Mr. D. University of Washington Department of Zoology NJ-15 Seattle, WA 98195 Phone: (206)543-7095	0	10/92	0 0
AR	WRST	Dating the Pre-Wisconsin Glaciations and Climatic Fluctuations of Alaska	Evenson, Dr. E. B. Lehigh University Department of Geologic Science Williams Hall #31 Bethlehem, PA 18018 Phone: (215)758-3659	90	12/90	0 0
AR	WRST	Chisana Caribou Herd Management	Kellyhouse, Mr. D. Alaska Department of Fish and Game Box 305 Tok, AK 99780 Phone: (907)883-2971	0	10/89	0 0
AR	WRST	Natural Renewable Resources Inventory	Larson, Mr. F. R. United States Forest Service Forestry Sciences Laboratory 201 East 9th Avenue, Suite 303 Anchorage, AK 99501 Phone: (907)271-2585	97	06/91	0 0
AR	WRST	Paleomagnetic Study of the Southern Alaska Superterrane: A Test for Transport on the Kula Plate	Panuska, Dr. B. C. Mississippi State University Department of Geology and Geography P.O. Drawer 5167 Mississippi State, MS 39762 Phone: (615)325-2911	75	12/90	0 1,979

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
AR	WRST	Alaska Lepidoptera Survey	Philip, Dr. K. W. University of Alaska Institute of Arctic Biology Fairbanks, AK 99775 Phone: (907)479-2689	0	00/99	0 0
AR	WRST	Wrangell Volcanic Field	Richter, Dr. D. H. U.S. Geological Survey 4200 University Drive Anchorage, AK 99508-4667 Phone: (907)561-1181	80	12/91	1 0
AR	WRST	Metamorphic and Structural Evolution of the Chugach Metamorphic Complex	Sisson, Dr. V. B. Rice University Department of Geology and Geophysic Houston, TX 77251-1892 Phone: (713)527-8101	20	12/91	0 0
AR	YUCH	Peregrine Falcon Survey and Banding	Ambrose, R. E. U.S. Fish and Wildlife Service 1412 Airport Way Fairbanks, AK 99701 Phone:	50	09/99	0 0
AR	YUCH	Bryophyte and Lichen Floras	Murray, B. M. University of Alaska Museum Fairbanks, AK 99775-1200 Phone:	0	00/99	0 0
AR	YUCH	Alaska Lepidoptera Study	Philip, K. W. University of Alaska Institute of Arctic Biology Fairbanks, AK	0	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
			99775 Phone:			

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	ALPO	Acid Mine Drainage Assessment		0	12/92	0
			NPS/Bureau of Mines/PSU			0
MAR	ALPO	Establish Gallitzin Road Trace	Levin, J .	100	11/89	0
			Denver Service Center			0
			National Park Service			
			P.O. Box 25287			
			Denver, CO			
			80225 Phone: ( ) -			
MAR	ALPO	Lakebed Restoration	Traynham, G. M.	45	05/91	70,000
			NPS-Coop. Park Studies Unit			0
			P.O. Box 247			
			Cresson, PA			
			16630 Phone: (814)886-8176			
MAR	ALPO	Gypsy Moth	Traynham, G. M.	0	00/99	0
			Allegheny Portage NHS			0
			P.O. Box 247			
			Cresson, PA			
			16630 Phone: (814)886-8176			
MAR	ASIS	Juvenile Blue Crab Recruitment	Anderson, Mr. R. D.	95	05/90	0
			Horn Point Environmental Lab			6,000
			University of Maryland			
			P.O. Box 775			
			Cambridge, MD			
			21613 Phone: (301)228-8200			

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	ASIS	Large scale exclosures on ASIS - the siting process	Bashore, Dr. T. L. University of MD - Eastern Shore Coastal Ecology Research Laboratory Princess Anne, MD 21853 Phone: (301)641-3842	99	01/90	73,000 0
MAR	ASIS	Deer Harvest Assessment - 1989	Bashore, Dr. T. L. University of MD - Eastern Shore Coastal Ecology Research Lab Princess Anne, MD 21853 Phone: (301)641-3842	100	12/89	1,131 0
MAR	ASIS	Deer Harvest Assessment - 1988	Bashore, Dr. T. L. University of MD - Eastern Shore Coastal Ecology Research Lab Princess Anne, MD 21853 Phone: (301)641-3842	99	01/90	4,600 300
MAR	ASIS	Chiroptera Survey	Bashore, Dr. T. L. University of MD - Eastern Shore Coastal Ecology Research Lab Princess Anne, MD 21853 Phone: (301)641-3842	99	07/89	400 0
MAR	ASIS	Annual Feral Horse Census	Bashore, Dr. T. L. University of MD - Eastern Shore Coastal Ecology Research Lab Princess Anne, MD 21853 Phone: (301)641-3842	100	05/89	300 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	ASIS	Home Range and Habitat Use of Raccoons	Bashore, Dr. T. L. University of MD - Eastern Shore Coastal Ecology Research Lab Princess Anne, MD 21853 Phone: (301)641-3842	50	01/91	0 0
MAR	ASIS	Relationship Between Home Range of Breeding Red Fox and Piping Plover Nest Sites	Bashore, Dr. T. L. University of MD - Eastern Shore Coastal Ecology Research Lab Princess Anne, MD 21853 Phone: (301)641-3842	50	09/90	5,000 0
MAR	ASIS	Marine Recreational Fishery Statistics Survey	Chandler, Ms. K. A. KCA Research, Inc. 501 Cherokee Ave. Suite 111 Alexandria, VA 22312 Phone: (703)642-5220	0	00/99	0 2,000
MAR	ASIS	Storm-related Mortality of Busycon spp. at Assateague Island National Seashore	Counts, Dr. C. L. University of MD - Eastern Shore Coastal Ecology Research Lab Box 1106 Princess Anne, MD 21853 Phone: (301)651-9311	5	00/99	0 150
MAR	ASIS	Seashells of Assateague Island National Seashore	Counts, Dr. C. L. University of MD - Eastern Shore Coastal Ecology Research Lab Box 1106 Princess Anne, MD 21853 Phone: (301)651-9311	90	04/90	433 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	ASIS	Foraging Habitats and Behavior of Piping Plovers	Fraser, Dr. J. D. VA Tech. & State University Dept. of Fisheries & Wildlife Sci. Blacksburg, VA 24061-0321 Phone: (703)231-6064	50	05/91	19,123 5,200
MAR	ASIS	Residence Time of Migrating Peregrine Falcons	Fuller, Mr. M. R. Patuxent Wildlife Research Center U.S. Fish and Wildlife Service Laurel, MD 20708 Phone: (301)498-0282	80	02/90	0 1,500
MAR	ASIS	Does feral pony grazing encourage the expansion of Distichlis spicata in the Spartina alterniflora saltmarshes of ASIS	Furbish, Ms. C. E. Assateague Island NS Route 2, Box 294 Berlin, MD 21811 Phone: (301)641-1756	80	03/90	280 0
MAR	ASIS	Vegetation Monitoring	Furbish, Ms. C. E. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	500 0
MAR	ASIS	Maryland Waterbird Study	Gates, Dr. J. E. University of Maryland Appalachian Environmental Lab Frostburg, MD 21532 Phone:	95	12/89	0 3,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	ASIS	Parasites in Sika Deer	Gavaghan, Mr. P. University of Pittsburgh 633 Parran Hall Pittsburgh, PA 15261 Phone:	0	00/99	0 250
MAR	ASIS	Ticks and Lyme Disease in Eastern National Parks	Ginsberg, Dr. H. S. Rutgers University Center for Coastal & Environmental Studies New Brunswick, NJ 08903 Phone: (219)324-882	0	00/99	70,000 35,000
MAR	ASIS	Monitoring of Completed Coastal Projects - South Jetty, Ocean City Inlet	Grosskopf, Mr. W. G. Offshore and Coastal Technologies 510 Spencer Rd. Avondale, PA 19311 Phone: (215)268-0410	80	09/90	0 0
MAR	ASIS	Freshwater Pond Monitoring	Hoyer, Dr. L. C. Wilde Lake High School 5460 Trumpeter Rd. Columbia, MD 21044 Phone: (301)730-5607	0	00/99	0 300
MAR	ASIS	Biology of Assateague Ponies	Keiper, Dr. R. R. Penn State University Department of Biology Mont Alto, PA 17237 Phone: (717)749-3111	0	06/75	0 1,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	ASIS	Chemical Fertility Control of Feral Horses	Kirkpatrick, Dr. J. F. Eastern Montana College Department of Biological Sciences Billings, MT 59101 Phone: (406)657-2342	90	09/90	2,000 4,000
MAR	ASIS	Water Quality Monitoring	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	75	10/90	27,000 0
MAR	ASIS	Clam Population Monitoring	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	500 0
MAR	ASIS	Shorebird Population Monitoring	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	1,000 0
MAR	ASIS	Feral Horse Population Monitoring	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	1,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	ASIS	Gypsy Moth Monitoring	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	200 0
MAR	ASIS	Marine Debris Survey	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	20	12/93	0 5,000
MAR	ASIS	Colonial Breeding Bird Monitoring	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	1,000 0
MAR	ASIS	Wetland Mitigation Monitoring	Kumer, Mr. J. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	2,000 0
MAR	ASIS	Saltmarsh Mosquito Migration Study	Lesser, C. R. Maryland Department of Agriculture Mosquito Control Division Rt. 5 Box 236 Salisbury, MD	10	00/99	0 500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
			21801 Phone: (301)543-6626			
MAR	ASIS	Ixodes Ticks and Borrelia burgdorferi in the Southeastern United States	Oliver, Dr. J. H. Georgia Southern University Institute of Arthropodology L.B. 8042, Biology Department Statesboro, GA 30460-8042 Phone: (912)681-5564	83	06/90	0 0
MAR	ASIS	Photo Monitoring	Olson, Mr. G. C. Division of Resources Management Assateague Island National Seashore Rt.2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	0 0
MAR	ASIS	Meteorological Observations	Olson, Mr. G. C. Division of Resources Management Assateague Island National Seashore Rt. 2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	750 0
MAR	ASIS	Natural History Observations	Olson, Mr. G. C. Division of Resources Management Assateague Island National Seashore Rt.2 Box 294 Berlin, MD 21811 Phone: (301)641-1443	0	00/99	500 0
MAR	ASIS	Distribution of Submerged Aquatic Vegetation in the Chesapeake Bay and Tributaries and Chincoteague Bay	Orth, Dr. R. J. College of William and Mary Virginia Inst. of Marine Science School of Marine Science	0	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
			Gloucester Point, VA 23062 Phone: (804)642-7000			
MAR	ASIS	Flight Behavior of Peregrine Falcons	Pennycuick, Dr. C. University of Miami Department of Biology P.O. Box 249118 Coral Gables, FL 33124 Phone:	90	12/89	0 200
MAR	ASIS	Nutrient Dynamics in Spartina alterniflora - Effects of Grazing	Rebach, Dr. S. University of MD - Eastern Shore Department of Natural Sciences Princess Anne, MD 21853 Phone: (301)651-2200	99	01/90	1,102 6,450
MAR	ASIS	Fertility, Dominance, and Herd Cohesion in Feral Horses	Rutberg, Dr. A. T. Vassar College Department of Biology Poughkeepsie, NY 12601 Phone: (914)437-7311	100	08/89	0 250
MAR	ASIS	Autumn Peregrine Falcon Migration Survey	Ward, Dr. F. P. U.S. Army Chemical Research Center SMCCR-RSB Aberdeen Proving Grd, MD 21010-5423 Phone: (301)671-2586	0	00/99	0 25,000
MAR	ASIS	Effects of Simulated Grazing	Zervanos, S. M. Penn State University P.O. Box 7009 Reading, PA 19610 Phone: (215)320-4875	90	11/88	0 1,100

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	BOWA	Floral Survey of Booker T. Washington National Monument	Critz, R. Virginia Western Community College Department of Biology Colonial Avenue Roanoke, VA 24015 Phone: (703)774-4518	0	00/99	0 0
MAR	BOWA	Floral Survey at Booker T. Washington, N.M.	Mengak, F. K. Gerrum College Division of Life Sciences Garber Hall Ferrum, VA 24088 Phone: (703)365-4387	85	12/90	0 0
MAR	COLO	Biomonitoring of Air Pollutants, Resource Study Proposal	Bennett, Dr. J. WASO-AIR, FRSP George Mason University Denver, CO Phone: (000)327-2814	0	00/99	500 0
MAR	COLO	Develop Open Fields Management Plan	Daniels, G. Colonial National Historical Park P.O. Box 210 Yorktown, PA 23690 Phone: (000)827-8000	0	00/99	3,000 500
MAR	COLO	Prepare Plan for Park Based Geographic Information System	DeVine, Dr. H. Colonial National Historical Park P.O. Box 210 Yorktown, VA 23690 Phone: (000)827-8000	0	00/99	2,200 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	COLO	Develop Fire and Vegetation Classification System	Devine, Dr. H. North Carolina State University School of Forestry P.O. Box 8008 Raleigh, NC 27695-8004 Phone: (919)737-0327	0	00/99	13,400 7,337
MAR	COLO	Chesapeake Bay Shoreline Study	Hardaway, S. College of William & Mary Institute of Marine Science Gloucester Point, VA 23062 Phone: (804)642-7277	0	03/91	0 4,200
MAR	COLO	Develop Air Quality Management Plan	Hauge, E. Denver Service Center National Park Service P.O. Box 25287 Denver, CO 80225 Phone: (303)236-8729	0	00/99	4,500 200
MAR	COLO	Groundwater Investigation of Jamestown Island Glasshouse Site	Johnson, Dr. G. College of William and Mary Geology Department Williamsburg, VA 23145 Phone: (804)221-2444	0	12/92	0 1,200
MAR	COLO	Stratigraphy and Paleontology of Passamore Creek, Jamestown Is.	Johnson, Dr. G. College of William and Mary Department of Geology Williamsburg, VA 23185 Phone: (804)221-2444	0	06/90	0 750

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	COLO	Inventory of Rare, Threatened and Endangered Species	Lipford, M. L. VA Dept. of Conservation and Rec Natural Heritage Program 203 Governor Street, Suite 402 Richmond, VA 23219 Phone: (000)000-0000	15	03/92	0 0
MAR	COLO	Groundwater Nutrient Study	MacIntyre, Dr. W. College of William and Mary VA Institute of Marine Science Gloucester Point, VA 23185 Phone: (804)642-7232	0	08/90	0 5,000
MAR	COLO	Measurement of Nitrogen Inputs to Chesapeake Bay and its Tributaries from Groundwater Sources	MacIntyre,, Dr. W. College of William & Mary, VA Institute of Marine Science Gloucester Point, VA 23185 Phone: (804)642-7232	0	08/92	0 10,000
MAR	COLO	Gypsy Moth Monitoring	Rafkind, Mr. C. Colonial National Historical Park P.O. Box 210 Yorktown, VA 23690 Phone: (000)827-8000	0	00/99	300 100
MAR	COLO	Mosquito, Tick Monitoring	Rindfleisch, J. York Co. Mosquito Control P.O. Box 532 Yorktown, VA 23690 Phone: (804)898-0135	0	12/95	0 1,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	COLO	Develop Complex Fire Management Plan	Segar, J. Colonial National Historical Park P.O. Box 210 Yorktown, VA 23690 Phone: (008)227-8000	0	00/99	8,000 0
MAR	COLO	Bateriological Monitoring of Public Water Systems	Whiteman, B. Colonial National Historic Park P.O. Box 210 Yorktown, VA 23690 Phone: (999)827-8000	0	00/99	2,500 0
MAR	DEWA	Proposed radiotelemetry study of wintering bald eagles in the Delaware Water Gap National Recreation Area.	Ambler, Mr. A. J. East Stroudsburg University Department of Biological Sciences East Stroudsburg, PA 18301 Phone: (717)424-3714	10	03/92	0 5,700
MAR	DEWA	Restoration of American Shad to the Susquehanna River	Arnold, Mr. D. Pennsylvania Fish Commission Bushkill, PA 18324 Phone: (717)588-6388	100	06/89	0 11,780
MAR	DEWA	Small Mouth Bass Survey: Delaware River Walleye Survey: Delaware River	Arnold, Mr. D. Pennsylvania Fish Commission Bushkill, PA 18324 Phone: (717)588-6388	0	00/99	0 0
MAR	DEWA	Routine stream survey of Toms, Hornbecks, Dingmans, Adams, and Raymondskill Creeks in DEWA for possible inclusion into PA's catchable trout program and or other management actions.	Arnold, Mr. D. A. Pennsylvania Fish Commission Bushkill, PA 18324 Phone: (717)588-6388	50	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	DEWA	Habitat Requirements of larval, sub-yearling, and spawning American Shad (Alosa sapidissima)	Backman, Mr. T. W. U.S. Fish and Wildlife Service Natl. Fishery Research & Dev. Lab R.D. #4, Box 63 Wellsboro, PA 16901 Phone:	10	12/93	0 18,000
MAR	DEWA	Statistical Analysis of Historic Water Quality Data from the Middle Delaware Scenic and Recreational River	Breidt, Mr. F. J. Colorado State University Department of Statistics Fort Collins, CO 80523 Phone:	100	09/89	15,000 0
MAR	DEWA	Soil Borings of the Delaware River	Chapman, Mr. R. Hartman Engineering 4910 Ransom Rd Clarence, NY 14031-2114 Phone:	100	09/89	0 0
MAR	DEWA	CAPS: Cooperative Agricultural Pest Survey	Denholm, Mr. T. B. New Jersey Dept. of Agriculture Division of Plant Industry CN-330 Trenton, NJ 08625 Phone: (609)292-5440	100	09/89	0 279,000
MAR	DEWA	Wild Turkey Research P-R Project W-64-R Study I-B Trap and TransferWild Turkeys Study I-C Wild Turkey Population Evaluation	Eriksen, Mr. R. E. NJ Divison of Fish, Game & Wildlife RD 3 Box 409 Hampton, NJ 08827 Phone: (201)735-8793	95	07/90	0 12,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	DEWA	Response of Six NJ Lakes to the Effects of Acidic Deposition on Surface and Ground Water Chemistry	Faust, Dr. S. D. Rutgers University Cook College Dept. of Environmental Sciences New Brunswick, NJ 08903 Phone: (201)932-8013	75	05/90	0 56,441
MAR	DEWA	Sampling Selected Northwestern New Jersey Habitats for the Presence of Water Shrew, Rock Vole and Mt. Dusky Salamander	FitzGerald, Dr. R. G. Montclair State College RD 2 Box 272 Branchville, NJ 07826 Phone: (201)948-7649	98	10/89	0 5,000
MAR	DEWA	Ecological and Genetic Studies of Blue-Winged and Golden-Winged Warblers	Gill, Dr. F. B. Academy of Natural Sciences 19th Street and the Parkway Philadelphia, PA 19103 Phone:	50	06/90	0 1,000
MAR	DEWA	Ticks and Lyme disease in National Parks of the Eastern United States	Ginsberg, Dr. H. S. Rutgers University Center for Coastal and Env Studies Boolittle Hall-Busch Campus New Brunswick, NJ 08903 Phone: (201)932-4882	0	00/99	70,000 35,000
MAR	DEWA	Health and Vigor of Red Spruce in the Kittatinny Ridge	Glenn, Dr. M. Seton Hall University Biology Department South Orange, NJ 07079 Phone: (201)408-3550	25	09/90	0 28,120

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	DEWA	1989 Upper Delaware Summer Limnological Program	Johnson, Ms. E. A. National Park Service-DEWA Star Route 38 Milford, PA 18337 Phone: (717)296-6952	25	00/99	8,000 10,000
MAR	DEWA	Roads and Trails Survey of the Delaware Water Gap NRA	Johnson, Ms. E. A. National Park Service Delaware Water Gap NRA Star Route 38 Milford, PA 18337 Phone: (717)296-6952	60	09/90	24,000 6,000
MAR	DEWA	Survey Adjacent Land Uses and Develop Water Resources Management Plan	Johnson, Ms. E. A. National Park Service Delaware Water Gap NRA Star Route 38 Milford, PA 18337 Phone: (717)296-6952	65	12/90	44,000 30,000
MAR	DEWA	Evaluation of Northern Goshawk Breeding Habitat in Pennsylvania	Kimmel, Mr. J. T. Penn State University 205 Forest Resources Lab University Park, PA 16802 Phone:	25	05/92	0 2,500
MAR	DEWA	Delaware River American Shad Population Estimate Juvenile American Shad Outmigration	Lupine, Mr. A. J. NJ Freshwater Fisheries Laboratory P.O. Box 394 Lebanon, NJ 08833 Phone:	0	00/99	0 30,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	DEWA	Resource Impacts at Delaware Water Gap NRA: Evaluation of Impacts, Their Causes, Recovery Rates and Potential Management.	Marion, Dr. J. National Park Service Cooperative Park Studies Unit Virginia Tech, Dept. of Forestry Blacksburg, VA 24061 Phone: (703)231-6603	85	08/91	2,000 0
MAR	DEWA	Caddis Fly Survey for Pennsylvania	Masteller, Dr. E. C. Penn State-The Behrend College Division of Science, Eng. & Tech. Station Road Erie, PA 16563-0203 Phone: (814)898-6404	35	12/91	0 13,000
MAR	DEWA	Upland Wildlife and Furbearer Research-Black Bear Distribution and Population Trends	McConnell, Ms. P. A. NJ Div. of Fish, Game, & Wildlife Northern District Office Box 383 RR 1 Hampton, NJ 08827 Phone: (201)735-7040	0	00/99	0 10,500
MAR	DEWA	The Development of a Rural Landscape Management Plan for Delaware Water Gap National Recreation Area	Melnick, Mr. R. Z. Land and Community Associates P.O. Box 92 Charlottesville, VA 29901 Phone: (804)295-3880	60	10/90	30,000 0
MAR	DEWA	Determination of the current status, maintenance and enhancement of bald eagle populations in New York State.	Nye, Dr. P. NY Dept. of Env. Conservation Wildlife Resources Center Delmar, NY 12054-9767 Phone:	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	DEWA	Pennsylvania Breeding Bird Atlas Project	Schmidt, Mr. C. R. P.O. Box 549 Delaware Water Gap, PA 18327 Phone: (717)992-5807	100	08/89	0 35,000
MAR	DEWA	Significant Ecological Features of the Steamtown National Historic Site and Rail Corridor to the Delaware Water Gap CA # CA4000-9-8009	Smith, Mr. T. L. The Nature Conservancy 34 Airport Drive Middletown, PA 17057 Phone: (717)948-3962	85	12/89	27,056 0
MAR	DEWA	Pike County Natural Areas Inventory	Smith, Mr. T. L. The Nature Conservancy 34 Airport Drive Middletown, PA 17057 Phone: (717)948-3692	90	01/90	0 35,000
MAR	DEWA	VIP Wildlife Research	Spencer, Mr. C. R. 119 Walnut Street Bloomfield, NJ 07003 Phone:	20	00/99	0 0
MAR	DEWA	Growth rates and interdegradation of the Eastern Painted Turtle, and the Midland Painted Turtle, in northwestern New Jersey	Stein, Mr. R. J. Biostar Associates Inc. RFD Box 165 Far Hills, NJ 07931 Phone: (201)234-0870	65	00/99	0 0
MAR	DEWA	Analysis of Hunter Economics, Socio-Demographic, and Attitudinal Attributes, Delaware Water Gap National Recreation Area.	Strauss, Dr. C. H. Penn State University 104 Ferguson Bldg. School of Forest Resources University Park, PA 16802 Phone: (814)865-4574	100	12/89	35,000 7,500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	DEWA	Monroe County Surface Water Study 1989	Surma, Ms. L. Monroe County Planning Commission Monroe County Courthouse Stroudsburg, PA 18360 Phone: (717)894-8490	70	03/90	0 13,000
MAR	DEWA	Hemlock Woolly Adelgid	Ward, Mr. R. C. NJ Dept. of Agriculture P.O. Box 281 Mendham, NJ 07945 Phone:	0	00/99	0 20,000
MAR	DEWA	Appropriate River Recreation Use Project, Managerial Component-Managerial Perspectives on Appropriate River Use	Wellman, Dr. J. D. VA Tech. & State University School of Forestry & Wldlf Resources Blacksburg, VA 24061 Phone:	100	01/89	0 2,000
MAR	DEWA	Delaware Water Gap Raptor Banding Station	Yoson, Mr. J. W. 494 C Ludlow Station Rd. Asbury, NJ 08802 Phone:	0	12/89	0 400
MAR	DEWA	Status and Distribution of New Jersey's "Endangered" Bog Turtle	Zappolorti, Mr. R. T. Herpotological Associates Phone: (201)349-5065	100	11/89	0 0
MAR	DIPA	Exotic Species Removal	Smith, Mr. C. National Park Service Fort Necessity National Battlefield RD 2, Box 528 Farmington, PA 15437 Phone: (412)329-5512	0	00/99	400 1,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	FOMC	Integrated Pest Management Program for Landscapes in National Parks of the Mid-Atlantic Region	Raupp, M. J. University of Maryland Department of Entomology College Park, MD 20742 Phone:	0	00/99	0 0
MAR	FONE	Meadow/Forest Pollen Study	Kelso, Dr. G. National Park Service Eastern Arch. Field Lab. Charlestown Naval Shipyard, Bldg 28 Boston, MA 02129 Phone: (617)242-1979	20	12/93	100 500
MAR	FONE	Gypsy Moth Survey	Onken, De. B. P. Dept. of Agriculture U.S. Forest Service 180 Canfield Street Onken, WV 26505 Phone:	20	00/99	500 1,400
MAR	FONE	Ohio River Basin Ground Water Network	Siwicki, Mr. R. U.S. Geological Survey Water Resources Division 1000 Liberty Ave. Pittsburgh, PA 15222 Phone:	60	00/99	50 13,700
MAR	FONE	Restoration of Historic Scene	Smith, Mr. C. National Park Service Fort Necessity National Battlefield RD 2, Box 528 Farmington, PA 15437 Phone: (412)329-5512	10	00/99	300 400

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	FONE	Integrated Pest Management	Smith, Mr. C. National Park Service Fort Necessity National Battlefield RD 2, Box 528 Farmington, PA 15437 Phone: (412)329-5512	0	00/99	100 0
MAR	FRHI	Vegetation Survey	Abrams, Dr. M. The Pennsylvania State University School of Forest Resources 4 Ferguson Building University Park, PA 16802 Phone: (814)865-4901	75	06/90	9,000 0
MAR	FRHI	Field Trial of Sodium Carbonate Injection to Abate Acid Discharges from an Underground Mine -- Parcel 3	Aljoe, W. W. U.S. Bureau of Mines P.O. Box 18070 Pittsburgh, PA 15236 Phone: (412)892-6569	70	09/90	0 25,000
MAR	FRHI	Evaluation and Installation of a Wetland for Treatment of Acid Mine Drainage Water	McIntire, P. E. U.S. Bureau of Mines P.O. Box 18070 Pittsburgh, PA 15236 Phone: (412)892-6539	80	09/91	25,000 20,000
MAR	FRHI	Gypsy Moth Detection/Monitoring Program	Schneeberger, N. USDA Forest Service Forest Pest Management 180 Canfield Street Morgantown, WV 26505 Phone: (304)291-4133	0	00/99	300 200

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	GETT	Ground Water Flow Systems and Water Quality of Gettysburg area, PA	Becher, A. E. U.S. Geological Survey, WRD 4th Floor, Federal Building P.O. Box 1107 Harrisburg, PA 17108 Phone: (717)782-3421	100	12/89	0 0
MAR	GETT	Identification, Restoration, and Maintenance of Historic Woodlots at Gettysburg National Military Park	Cavanaugh, C. M. Pennsylvania State University School of Forest Resources Ferguson Building University Park, PA 16802 Phone: (814)865-1602	30	08/90	12,000 1,020
MAR	GETT	Acid Deposition effects on bronze and marble monuments and statues at GETT	Dolske, D. A. Illinois Department of Energy & NR State Water Survey Division 2204 Griffith Drive Champaign, IL 61820 Phone: (217)333-7858	90	06/90	20,000 0
MAR	GETT	Survey of Amphibians and reptiles of Gettysburg	Hulse, A. C. Indiana University of Pennsylvania Department of Biology Indiana, PA 15705 Phone: (412)357-2279	100	06/89	0 150
MAR	GETT	Dogwood Anthracnose Survey	Jackson, W. USDA, Forest Service 180 Canfield Street Morgantown, WV 26505 Phone: (304)291-4133	0	00/99	0 400

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	GETT	Ecological Consequences of Ash Decline and Relationship of Disease to Drought	Leopold, D. J. State University of New York College of Environmental Sciences and Forest Biology Syracuse, NY 13210 Phone: (315)470-6784	100	09/89	0 47,387
MAR	GETT	Ground Water Quality Monitoring	McNulty-Huffman, D. C. NPS, Gettysburg National Mil. Park Gettysburg National Military Park Gettysburg, PA 17325 Phone: (717)334-0909	0	00/99	7,000 0
MAR	GETT	Status and Habitat Requirements of Great Horned Owls in Pennsylvania	Morrell, T. Pennsylvania State University Forest Resources Lab University Park, PA 16802 Phone: (814)863-3201	98	06/90	0 0
MAR	GETT	Integrated Pest Management Programs for Landscapes in National Parks in the Mid-Atlantic Region	Raupp, M. J. University of Maryland Department of Entomology College Park, MD 20742 Phone: (301)454-2688	80	06/90	20,000 6,000
MAR	GETT	Environmental assessment of Pesticide Use on Agricultural Lands at Gettysburg National Military Park.	Stonesifer, K. J. Penn State University R.D. #1, Box 64 Julian, PA 16844 Phone: (814)692-8750	100	12/89	600 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	GETT	Plant community development in historic woodlots in Gettysburg National Military Park	Storm, G. L. U.S. Fish and Wildlife Service PA Coop. Fish & Wildlife Res. Unit PSU, 7 Ferguson Building University Park, PA 16802 Phone: (814)865-4511	5	09/91	500 0
MAR	GETT	Population status, movements, habitat use, and impact of white-tailed deer at GNMP and ENHS, Pennsylvania	Storm, G. L. U.S. Fish & Wildlife Service PA Coop. Fish & Wildlife Res. Unit PSU, 7 Ferguson Building University Park, PA 16802 Phone: (814)865-4511	100	12/89	1,000 6,000
MAR	GETT	Gypsy Moth Survey	Whiteman, R. USDA, Forest Service 180 Canfield Street Morgantown, WV 26505 Phone: (304)291-4133	0	00/99	0 500
MAR	GETT	Flora Inventory and Vegetative Cover Type Mapping of Gettysburg National Military Park	Yahner, R. H. Pennsylvania State University School of Forest Resources University Park, PA 16802 Phone: (814)863-3201	90	06/90	0 5,000
MAR	GEWA	Deer Survey (Spotlight)	George Washington Birthplace and National Monument/Thomas Stone NHS R.R.#1, Box 717 Washington's Birthpl, VA 22443 Phone: (804)224-1732	66	04/90	200 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	GEWA	Erosion Monitoring of Potomac River Bank	George Washington Birthplace Nat'l Monument/Thomas Stone Nat'l HS R.R.#1, Box 717 Washington's Birthpl, VA 22575 Phone: (804)224-1732	100	00/99	25 0
MAR	GEWA	Monitor spread and eradication of Phragmites, (alien species)	George Washington's Birthplace Natl Monument/Thomas Stone NHS R.R.#1, Box 717 Washington's Birthpl, VA 22575 Phone: (804)224-1732	0	00/99	150 0
MAR	GEWA	White-Tail Deer Research (Abomasal Parasite Count)	Brock, Mr. S. VA Dept of Game & Inland Fisheries 5682-A Mooretown Road Williamsburg, VA 23185 Phone: (804)253-7058	100	12/89	100 1,367
MAR	GEWA	Collection of Harvest Data on White-Tailed Deer	Brock, Mr. S. VA Dept of Game & Inland Fisheries 5682-A Mooretown Road Williamsburg, VA 23185 Phone: (804)253-7058	90	01/90	50 300
MAR	GEWA	Monitor Nesting Bald Eagles within the park and Protect the Nesting Site	Byrd, Dr. M. College of William and Mary Williamsburg, VA 23186 Phone: (804)253-4240	0	00/99	100 300

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	GEWA	Inventory of Rare, Threatened and Endangered Species	Clampitt, Mr. C. VA Natural Heritage Program 203 Governor Street, Suite 402 Richmond, VA 23219 Phone: (804)786-7951	0	10/91	0 0
MAR	GEWA	Estuarine Research Reserve System	Curtis, C. VA Institute of Marine Science Gloucester Point, VA 23062 Phone: (804)642-7156	85	09/90	2,371 1,504
MAR	GEWA	Inventory of Age, Class and Tree Species of Dancing Marsh	Knoeller, C. H. Department of Forestry P.O. Box 304 Montross, VA 22520 Phone: (804)493-9440	100	09/89	50 175
MAR	GEWA	Gypsy Moth Pheromone Trapping	Leonard, Ms. D. S. USDA Forest Service, FPM P.O. Box 2680 Asheville, NC 28802 Phone: (704)257-4329	0	09/00	75 100
MAR	GEWA	A Study of Recent Vegetative Changes in Pope's Creek Marsh	Wilcox-Koepfler, J. 9320 S.P.I.D. #1808 Corpus Christi, TX 78418 Phone: (512)749-6798	100	06/89	200 200
MAR	HAMP	Integrated Pest Management Program for Landscapes in National Parks of the Mid-Atlantic Region	Raupp, M. J. University of Maryland Department of Entomology College Park, MD 20742 Phone:	0	06/90	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	HOFU	White-tailed Deer Monitoring	Stone, R. Hopewell-Furnace NHS RD1, Box 345 Elverson, PA 19520 Phone: (215)582-8773	100	12/89	500 0
MAR	HOFU	Apple Orchard Pest Monitoring	Stone, R. Hopewell-Furnace NHS RD1, BOX 345 Elverson, PA 19520 Phone: (215)582-8773	100	09/89	800 0
MAR	HOFU	Alien Vegetation Control	Stone, R. Hopewell-Furnace NHS RD1, BOX 345 Elverson, PA 19520 Phone: (215)582-8773	100	09/89	1,200 0
MAR	HOFU	Vegetation Monitoring	Stone, R. Hopewell-Furnace NHS RD1, BOX 345 Elverson, PA 19520 Phone: (215)582-8773	35	12/90	0 0
MAR	MONI	Reintroduction of Running Buffalo Clover (TRIFOLIUM STOLONIFERUM)	McDonald, Mr. B. WV Natural Heritage Program P.O. BOX 67 Elkins, WV 26241 Phone: (304)636-1767	100	06/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	MONI	Geographic Information System Development	Riddle, Ms. M. National Park Service Denver Service Center 12795 W. Alameda Parkway Denver, CO 80225-0287 Phone: (303)969-2412	100	12/89	8,000 0
MAR	MONI	Monitoring of Gypsy Moth Populations on the New Jersey side of the Delaware Water Gap National Recreation Area	Troutman, Mr. T. J. National Park Service Delaware Water Gap NRA NJ District Office Bushkill, PA 18324 Phone: (201)948-6500	0	00/99	1,000 0
MAR	NERA	Long-Term Ecological Monitoring in the New River, Water Quality Monitoring at 5 Stations in the New River	McCoy, Dr. E. WV Division of Water Resources 1201 Greenbrier Street Charleston, WV 25311 Phone: (304)348-2107	95	01/90	3,500 0
MAR	NERI	Unsteady Flow Solute Transport Study	Appel, Mr. D. U.S. Geological Survey Water Resources Division 603 Morris Street Charleston, WV 25301 Phone: (304)347-5131	80	09/90	0 40,000
MAR	NERI	Long-Term Ecological Monitoring in the New River, Operate 4 Parameter Water Quality Monitors at 2 Stations.	Appel, Mr. D. U.S. Geological Survey Water Resources Division 603 Morris Street Charleston, WV 25301 Phone: (304)347-5131	40	09/91	5,000 3,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	NERI	Gypsy Moth Monitoring at New River Gorge National River	Buermeyer, Mr. K. U.S.D.A. - Forest Service AIPM Project Office P.O. Box 2208 Elkins, WV 26241 Phone: (304)636-3803	0	00/99	0 837
MAR	NERI	Vegetation Map of the New River Gorge National River	Duncan, Ms. N. NPS-GIS Division P.O. Box 25287 Denver, CO 80225-0287 Phone: (303)969-2590	100	12/89	1,000 0
MAR	NERI	West Virginia Mammal Survey	Hight, Dr. M. Department of Biological Sciences Marshall University Huntington, WV 25755 Phone: (304)696-6692	65	12/91	2,000 13,000
MAR	NERI	Appropriate River Recreation Use Project, Ecological Component-Resource Impact Assessment	Marion, Dr. J. Cooperative Park Studies Unit Virginia Tech Dept of Forestry Blacksburg, VA 24061 Phone: (703)231-6603	95	02/90	2,000 0
MAR	NERI	Monitor Water Quality Standards - Fecal Coliform	McCoy, Dr. E. WV Division of Water Resources 1201 Greenbrier Street Charleston, WV 25311 Phone: (304)348-2107	80	06/90	2,700 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	NERI	Monitor Water Quality Standards - Conventional Pollutant Sampling	McCoy, Dr. E. WV Division of Water Resources 1201 Greenbrier Street Charleston, WV 25311 Phone: (304)348-2107	70	06/90	3,400 0
MAR	NERI	Long-Term Ecological Monitoring in the New River, Priority Pollutant Monitoring	McCoy, Dr. E. WV Division of Water Resources 1201 Greenbrier Street Charleston, WV 25311 Phone: (304)348-2107	0	00/99	0 0
MAR	NERI	Install Staff Gages and Develop Flow Curves for New River Tributaries	McCoy, Dr. E. WV Division of Water Resources 1201 Greenbrier Street Charleston, WV 25311 Phone: (304)348-2107	95	00/99	7,500 0
MAR	NERI	Survey of Upland Vertebrates of New River Gorge National River	McDonald, Mr. B. WV Natural Heritage Program P.O. Box 67 Elkins, WV 26241 Phone: (304)636-1767	20	06/92	20,000 4,000
MAR	NERI	Management of Herbicide Spraying of Powerline and Railroad Rights-of-Way	Michael, Dr. E. Forestry - West Virginia University P.O. Box 6125 Morgantown, WV 26506 Phone: (304)293-4797	95	02/90	0 2,300

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	NERI	Long-Term Ecological Monitoring in the New River, Fisheries Component	Orth, Dr. D. VA Tech. & State University Department of Fisheries & Wildlife Blacksburg, VA 24061 Phone:	40	07/91	25,000 0
MAR	NERI	Quality of Drinking Water at NERI	Pollio, Ms. C. A. National Park Service New River Gorge National River P.O. Box 246 Glen Jean, WV 25846 Phone: (304)465-0508	10	00/00	140 0
MAR	NERI	Revegetation of Unreclaimed Mine Sites, Native Seed Bank Project	Pollio, Ms. C. A. New River Gorge National River P.O. Box 246 Glen Jean, WV 25846 Phone: (304)465-0508	40	12/90	1,000 1,500
MAR	NERI	Success of Wasp Traps at New River Gorge National River	Pollio, Ms. C. A. New River Gorge National River P.O. Box 246 Glen Jean, WV 25846 Phone: (304)465-0508	50	12/90	500 0
MAR	NERI	Appropriate River Recreation Use Project, Managerial Component-Exploring the Potential Partnership Role of River Outfitters in Managing Public Rivers	Roggenbuck, Dr. J. W. Department of Forestry VA Tech. & State University Blacksburg, VA 24061-0324 Phone: (703)231-7418	100	06/89	0 120

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	NERI	Leaf-Off Aerial Photography - Natural Color	Salazar, Mr. W. USDA-Forest Service Forest Pest Management 1720 Peachtree Street, NW Atlanta, GA 30367 Phone: (404)347-2961	100	04/89	7,369 0
MAR	NERI	Leaf-Off Aerial Photography - Color Infrared	Salazar, Mr. W. USDA-Forest Service Forest Pest Management 1720 Peachtree Street, NW Atlanta, GA 30367 Phone: (404)347-2961	100	04/89	8,853 0
MAR	NERI	Reintroduction of the Peregrine Falcon (FALCO PEREGRINUS)	Stihler, Mr. C. WV Department of Natural Resources P.O. Box 67 Elkins, WV 26241 Phone: (304)636-1767	70	10/91	0 17,500
MAR	NERI	Using Secondary Production to Analyze the Ecological Effects of Black Fly Pest Management in the New River below Bluestone Dam	Voshell, Jr., J. R. VA Tech. & State University Department of Entomology Blacksburg, VA 24061 Phone: (703)231-5707	99	02/90	0 0
MAR	NERI	Long-Term Ecological Monitoring in the New River, Invertebrate Component	Voshell, Jr., Dr. J. R. Department of Entomology VA Tech. & State University Blacksburg, VA 24061 Phone: (703)231-5707	50	06/91	48,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	NERI	Appropriate River Recreation Use Project, Managerial Component - Managerial Perspectives on Appropriate River Use	Wellman, Dr. J. D. VA Tech. & State University School of Forestry & Wildlife Res. Blacksburg, VA 24061 Phone: (703)231-6663	100	12/89	0 2,000
MAR	NERI	West Virginia Breeding Bird Atlas Survey	Worthington, Mr. G. 118 Clark Avenue Fayetteville, WV 25840 Phone: (304)574-0540	99	08/89	0 250
MAR	NERI	Inventory of Abandoned Coal and Gas Operations in the New River Gorge National River	Yuill, Mr. C. Landscape Architecture West Virginia University 1138 Agricultural Science Bldg Morgantown, WV 26505 Phone: (304)293-2141	85	06/90	0 0
MAR	PETE	Hazard Tree Removal	Barat, C. Petersburg NB P.O. Box 549 Petersburg, VA 23804 Phone: (804)732-3531	70	00/99	19,115 0
MAR	PETE	Tick Monitoring	Barat, C. Petersburg NB P.O. Box 549 Petersburg, VA 23804 Phone: (804)732-3531	0	00/99	400 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	PETE	Safe Drinking Water Maintenance	Barat, C. Petersburg NB P.O. Box 549 Petersburg, VA 23804 Phone: (804)732-3531	0	00/99	1,800 0
MAR	PETE	Stream Micro-biology testing	Barat, C. Petersburg NB P.O. Box 549 Petersburg, VA 23804 Phone: (804)732-3531	0	00/99	2,000 0
MAR	PETE	Photo Point Study (Earthworks)	Barat, C. Petersburg NB P.O. Box 549 Petersburg, VA 23804 Phone: (804)732-3531	50	00/99	750 0
MAR	PETE	Streambed Monitoring	Gregory, Dr. J. D. N.C. State University Box 8002 Raleigh, NC 27695-8002 Phone: (919)737-2891	99	12/89	0 0
MAR	PETE	Air Quality Biomonitoring Project	Lawrey, J. D. George Mason University 4400 University Drive Fairfax, VA 22030-4444 Phone: (703)323-2181	0	00/99	200 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	PETE	Gypsy Moth Trapping Program	Leonard, D. U.S. Forest Service P.O. Box 2680 Asheville, NC Phone: (704)257-4329	0	00/99	500 0
MAR	PETE	Riverbank Stabilization at City Point.	Melchor, J. N. U.S. Corps of Engineers Norfolk District 803 Front Street Norfolk, VA 23510-1096 Phone: (804)441-3668	0	06/90	3,000 0
MAR	PETE	Flora Study	Porter, Dr. D. M. VA Tech. & State University Department of Biology Blacksburg, VA 24061-0406 Phone: (703)231-6407	0	10/90	350 0
MAR	RICH	Assessment of Risk from Adjacent Landfill	Nimmo, Dr. D. W. Colorado State University NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)491-0695	90	09/90	6,000 0
MAR	SHEN	Parkwide Gypsy Moth Population Monitoring	Shenandoah National Park Route 4 Box 348 Luray, VA 22835 Phone: (703)999-2243	50	12/99	0 45,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Natural Resource Monitoring (LTEMS)		66	12/99	600,000
			National Park Service Shenandoah National Park Rt. 4, Box 348 Luray, VA 22835 Phone: (703)999-2243			0
MAR	SHEN	Annual Hard Mast Survey		50	12/99	2,000
			National Park Service Shenandoah National Park Rt. 4, Box 348 Luray, VA 22835 Phone: (703)999-2243			0
MAR	SHEN	Virginia Breeding Bird Atlas		90	12/90	0
			National Park Service Shenandoah National Park Route 4, Box 348 Luray, VA 22835 Phone: (703)999-2243			0
MAR	SHEN	Monitoring the Effects of Mowing and Herbicide Stump Treatment on Vegetation in Big Meadows		50	12/99	0
			National Park Service Shenandoah National Park Route 4, Box 348 Luray, VA 22835 Phone: (703)999-2243			0
MAR	SHEN	Ground Cover Regeneration of Closed Campsites on Old Rag Mountain		100	10/88	0
			National Park Service Shenandoah National Park Route 4, Box 348 Luray, VA 22835 Phone: (703)999-2243			0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Gypsy Moth Induced Tree Mortality Monitoring	National Park Service Shenandoah National Park Route 4, Box 348 Luray, VA 22835 Phone: (703)999-2243	50	12/99	11,000 0
MAR	SHEN	Impact of White-Tailed Deer on the Vegetation of the Loft Mountain Developed Area in Shenandoah National Park.	Shenandoah National Park Rt. 4 Box 348 Luray, VA 22835 Phone: (703)999-2243	85	12/89	250 0
MAR	SHEN	Black Bear Population Monitoring by Sample Indices.	Shenandoah National Park Rt. 4 Box 348 Luray, VA 22835 Phone: (703)999-2243	0	00/99	1,000 0
MAR	SHEN	Park Fisheries Monitoring Program	Shenandoah National Park Rt. 4 Box 348 Luray, VA 22835 Phone: (703)999-2243	0	00/99	20,000 0
MAR	SHEN	Big Meadows Swamp Water Level Monitoring	Shenandoah National Park Rt. 4 Box 348 Luray, VA 22835 Phone: (703)999-2243	75	12/90	200 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Peregrine Falcon Recovery Project		30	10/92	12,000
			Shenandoah National Park			4,000
			Rt. 4 Box 348			
			Luray, VA			
			22835 Phone: (703)999-2243			
MAR	SHEN	National Atmospheric Deposition Program		50	12/99	0
			Shenandoah National Park			0
			Rt. 4, Box 348			
			Luray, VA			
			22835-9051 Phone: (703)999-2243			
MAR	SHEN	O3 and SO2 Monitoring		50	12/99	71,000
			Shenandoah National Park			0
			Rt. 4, Box 348			
			Luray, VA			
			22835-9051 Phone: (703)999-2243			
MAR	SHEN	Visibility and Air Quality Monitoring.		50	12/99	2,500
			Shenandoah National Park			0
			Rt. 4, Box 348			
			Luray, VA			
			22835-9051 Phone: (703)999-2243			
MAR	SHEN	Inventory of Vascular Plants of Big Meadows - 1989	Baxter, Ms. E.	25	12/90	0
			James Madison University			675
			Department of Biology			
			Harrisonburg, VA			
			22801 Phone: (703)568-6683			

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Fox and Raccoon Population Index Trends	Coggin, Mr. J. VA Dept. of Game & Inland Fisheries Municipal Building Buchanan, VA 24066 Phone:	0	12/88	0 0
MAR	SHEN	An Experimental Approach to the Taxonomy of Lycopodium selago L.	Dawson, Mr. R. F. 40 Palmer Avenue Winter Park, FL 32789 Phone: (407)740-8533	0	00/99	0 0
MAR	SHEN	A Comparitive Study Between Two Techniques of Estimating Habitat and Fish Populations in Southeast Headwater Streams.	Dolloff, Dr. C. A. VA Tech. & State University Dept. of Fisheries and Wildlife Sci Blacksburg, VA 24061 Phone: (703)231-4864	60	05/90	0 1,876
MAR	SHEN	Use of New Assay Technology to Quantify Mortality from Virus in GYPCHEK Plots in the Appalachian Integrated Pest Management Region	Elkinton, Mr. J. S. University of Massachusetts Department of Entomology Amherst, MA 01003 Phone: (413)545-2283	90	04/90	0 25,000
MAR	SHEN	Northern Flying Squirrel Investigations	Fies, Mr. M. L. VA Dept. of Game & Inland Fish. 1229 Cedars Court Charlottesville, VA 22901 Phone: (804)296-4731	70	05/91	150 200

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Shenandoah Watershed Study (SWAS)	Galloway, Dr. J. N. University of Virginia Dept. of Environmental Sciences Charlottesville, VA 22903 Phone: (804)924-0569	0	00/99	40,000 0
MAR	SHEN	Epizootiology of Entomophaga sp. nr. aulicae, a fungal pathogen of the gypsy moth.	Hajek, Dr. A. E. USDA Agricultural Research Service Boyce Thompson Institute Ithaca, NY 14853 Phone: ( ) -	100	12/89	0 0
MAR	SHEN	Effects of a mid-July wildfire on Forest Vegetation and Soils in the Shenandoah National Park, Virginia.	Johnson, Dr. J. E. VA Tech. & State University Department of Forestry 228 Cheatham Hall Blacksburg, VA 24061 Phone: (703)231-7679	35	12/90	1,000 16,500
MAR	SHEN	Inventory of Rare, Threatened, and Endangered Species	Lipford, Dr. M. L. VA Dept. of Conservation and Rec. Natural Heritage Program 203 Governor Street, Suite 402 Richmond, VA 23219 Phone: (804)786-7951	15	03/92	1,000 0
MAR	SHEN	A Review of Natural Resource Monitoring at Shenandoah National Park between 1978 and 1988	McNulty-Huffman, Ms. C. P.O. Box 3326 Gettysburg, PA 17325-0326 Phone: (717)624-8356	50	06/90	0 11,597

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Investigation of Factors Affecting the Population of Brook Trout in the Hazel River, Shenandoah National Park	Ney, Dr. J. J. VA Tech. & State University Dept. of Fisheries and Wildlife Sci Blacksburg, VA 24061 Phone: (703)231-7292	70	12/90	14,100 6,000
MAR	SHEN	The Effects of Drifting Prey Density on Daily Rations of Brook Trout in the Southern Appalachians.	Orth, Dr. D. VA Tech. & State University Dept. of Fisheries and Wildlife Sci Blacksburg, VA 24061 Phone: (703)231-5320	75	06/90	0 16,600
MAR	SHEN	Field Evaluations of the Impact of Bacillus thuringiensis, Applied for Gypsy Moth Control on Non-Target Lepidoptera in the Shenandoah National Park.	Peacock, Dr. J. W. USDA Forest Service Northeastern Forest Expt. Station Hamden, CT 96514 Phone: (203)773-2033	25	12/92	0 11,500
MAR	SHEN	Evaluation of Single and Double Aerial Application of GYPCHEK Against Gypsy Moth Populations in Shenandoah National Park.	Podgwaite, Dr. J. D. USDA Forest Service Center for Biological Control Northeastern Forest Expt. Station Hamden, CT 06514 Phone: (203)773-2033	100	12/89	0 99,430
MAR	SHEN	Parasites and Invertebrate Predators Associated with Gypsy Moth Life Stages in Shenandoah National Park.	Reardon, Dr. R. C. USDA Forest Service 180 Canfield Street P.O. Box 4360 Morgantown, WV 26505 Phone: (304)291-4891	30	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Population Structure of Gypsy Moth in a Permanent Plot in Shenandoah National Park	Roberts, Mr. E. A. VA Tech. & State University Dept. of Entomology Blacksburg, VA 24061 Phone: (703)231-6826	80	03/90	0 15,000
MAR	SHEN	Lichens as Monitors of Heavy Metals and Agents of Weathering	Schwartzman, Dr. D. W. Howard University Dept. of Geology and Geography Washington, DC 20059 Phone: (202)636-6925	30	06/90	0 2,685
MAR	SHEN	Mountain Cloud Chemistry/Forest Exposure Study Deposition in Shenandoah National Park	Sigmon, Mr. J. T. University of Virginia Dept. of Environmental Sciences Charlottesville, VA 22903 Phone: (804)924-0557	80	12/90	0 190,000
MAR	SHEN	Flora and Fauna of Northwestern Virginia	Simpson, Mr. R. Lord Fairfax Community College Department of Natural Resources Middletown, VA 22645 Phone: (703)869-1120	50	00/99	0 9,920
MAR	SHEN	Gypsy Moth Defoliation Survey	Tigner, Mr. T. G. Virginia Dept. of Forestry Box 3758 Charlottesville, VA 22903 Phone: (804)977-6555	75	08/95	0 250

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	SHEN	Response of Black Bears to Gypsy Moth Infestation in Shenandoah National Park, Virginia	Vaughan, Dr. M. VA Tech. & State University Wildlife Unit Cheatham Hall Blacksburg, VA 24061 Phone: (703)231-5046	80	06/91	35,000 14,000
MAR	SHEN	To Develop a Long-Term Monitoring Program that Will Effectively Measure Changes in Selected Terrestrial and Aquatic Ecosystem Components	Vaughan, Mr. M. R. U.S. Fish and Wildlife Service VA Tech. & State University Department of Forestry and Wildlife Blacksburg, VA 22601 Phone: (703)969-5046	90	05/90	40,000 0
MAR	STEA	Significant Ecological Features of the Steamtown National Historic Site and Rail Corridor to the Delaware Water Gap CA#4000-9-8009.	Smith, Mr. T. L. The Nature Conservancy 34 Airport Drive Middletown, PA 17057 Phone: (717)948-3962	85	12/89	27,056 0
MAR	UPDE	Summer Limnological Survey, Upper Delaware S.R.R.	Albert, Mr. R. C. Delaware River Basin Commission P.O. Box 7360 West Trenton, NJ 08628 Phone: (609)883-9500	100	12/89	15,000 0
MAR	UPDE	Trout sampling in Upper Delaware tributaries for genetic comparison with the same species state wide. Flesh samples will be analysed for toxic accumulation.	Angyal, Mr. R. K. N.Y. Dept. of Envtl. Conservation 50 Wolf Rd. Albany, NY 1233-0001 Phone: (518)457-6179	50	06/90	0 1,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	UPDE	Habitat requirements of larval, sub-yearling, and spawning American Shad (Alosa sapidissima)	Backman, Mr. T. W. U.S. Fish and Wildlife Service Nat. Fisheries Research Center Rural Delivery 4, Box 63 Wellsboro, PA 16901 Phone: (717)724-3322	10	12/92	200 1,000
MAR	UPDE	Engineering Investigation at Inactive Hazardous Waste Site	Demick, P.E., Mr. W. E. N.Y. Dept. of Envtl. Conservation Bureau of Hazardous Waste Control 50 Wolf Road Albany, NY 12233 Phone: (518)457-9538	100	09/89	500 59,101
MAR	UPDE	Delaware River Population Estimate for American Shad and Juvenile American Shad Outmigration	Lupine, Mr. A. J. State of New Jersey Dept. of Envtl. Conservation B. of Sport Fisheries, P.O. Box 394 Lebanon, NJ 08833 Phone: (201)236-2118	40	00/99	0 4,000
MAR	UPDE	Validity of Microtox testing: Cortese Landfill, UPDE	Nimmo, Dr. D. W. Colorado State University NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)491-0695	25	01/92	36,000 0
MAR	UPDE	Reestablishing the American Bald Eagle in the Upper Delaware Basin	Nye, Mr. P. N.Y. Dept. of Envtl. Conservation Endangered Species Unit Wildlife Resources Center Delmar, NY 12054-9767 Phone: (518)439-7635	0	00/99	500 50,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	UPDE	Research and remediation, Cortese Landfill, (Superfund site)	Reagan P.E., Mr. J. N.Y. Dept. of Envtl. Conservation Bureau of Eastern Remedial Action Div. of Hazardous Waste, 50 Wolf Rd Albany, NY 12233-7010 Phone: (518)457-5637	60	12/94	11,500 106,000
MAR	UPDE	Cortese Landfill (toxic waste impact)	Ross Jr., Mr. M. A. National Park Service UPDE P.O. Box C Narrowsburg, NY 12764 Phone: (717)729-7842	30	12/90	17,000 9,000
MAR	UPDE	Set Up and Implement a Geographical Information System	Ross Jr., Mr. M. A. National Park Service P.O. Box C Narrowsburg, NY 12764 Phone: (717)729-7842	1	00/99	1,500 0
MAR	UPDE	Appropriate River Use, Managerial Perspective	Wellman, Mr. J. VA Tech. & State University School of Forestry 304 Cheatham Hall Blacksburg, VA 24061-0324 Phone: (703)961-6663	100	09/89	200 2,000
MAR	VAFO	Utility Corridor Data Management	Dwyer, K. Valley Forge NHP Valley Forge, PA 19481 Phone: (215)783-1011	10	09/91	0 700

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	VAFO	PCB's in the Valley Creek Watershed	Keating, S. Groundwater Technology, Inc. P.O. Box 309 Chadds Ford, PA 19317 Phone: (215)388-1466	60	12/90	0 13,000
MAR	VAFO	Dissolved Oxygen Monitoring Program	Kling, R. M. EMC Environmental Services, Inc. Fricks Lock Road, R. D. 1 Pottstown, PA 19464 Phone: (215)326-9662	50	06/91	0 5,000
MAR	VAFO	Mapped Information System	Lambert, B. Valley Forge NHP Valley Forge, PA 19481 Phone: (215)296-2583	10	00/99	1,600 1,440
MAR	VAFO	Historic Trees Survey	Lambert, B. Valley Forge NHP Valley Forge, PA 19481 Phone: (215)296-2583	0	00/99	1,800 0
MAR	VAFO	Acid Precipitation Monitoring	Lynch, Dr. J. A. Penn State University 311 Forest Resources Lab University Park, PA 16802 Phone: (814)863-8830	0	00/99	9,872 72,350
MAR	VAFO	Annual Spotlight Deer Count	Pumphrey, D. Valley Forge NHP P.O. Box 953 Valley Forge, PA 19481-0953 Phone: (215)783-1067	0	00/99	200 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MAR	VAFO	Gypsy Moth Monitoring	Pumphrey, D. Valley Forge NHP Valley Forge, PA 19481 Phone: (215)673-1067	0	00/99	940 0
MAR	VAFO	Integrated Pest Management Programs for Landscapes in National Parks of the Mid-Atlantic Region	Raupp, M. J. University of Maryland Department of Entomology College Park, MD 20742 Phone:	80	06/90	15,000 4,500
MAR	VAFO	Streambank Stabilization Assessment	Reed, W. Valley Forge NHP Valley Forge, PA 19481 Phone: (303)221-8319	10	12/90	3,600 0
MAR	VAFO	Land Use Study of Valley Forge NHP	Rhoads, Dr. A. F. University of Pennsylvania Morris Arboretum 9414 Meadowbrook Avenue Philadelphia, PA 19118 Phone: (215)247-5777	100	12/89	7,790 0
MAR	VAFO	Biological Survey and Management Plan for the Valley Creek Drainage Basin, Valley Forge National Park	Stauffer, Dr. J. R. Pennsylvania State University School of Forest Resources University Park, PA 16802 Phone: (814)865-4511	95	12/89	1,008 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	AGFO	Paleontological Excavations at Beardog Hill, Agate Fossil Beds National Monument.	Hunt, Dr. R. M. University of Nebraska W436 Nebraska Hall Division of Vert. Paleontology Lincoln, NE 68588-0514 Phone: (402)472-4604	80	05/91	11,942 5,000
MWR	AGFO	Assessment of the Aquatic Resources of Agate Fossil Beds National Monument.	Kondratieff, Mr. B. C. Colorado State University Dept. of Entomology Fort Collins, CO 80523 Phone: (303)491-7314	70	09/90	1 0
MWR	AGFO	Fishes of the Niobrara River at Agate Fossil Beds National Monument 1979 and 1989.	Stasiak, R. H. University of Nebraska-Omaha Department of Biology College of Arts and Sciences Omaha, NE 68182-0040 Phone: (402)554-2641	90	06/90	500 0
MWR	APIS	Migrational and Local Movements of Wisconsin Common Loons.	Anderson, Dr. R. K. University of WI-Stevens Point College of Natural Resources Stevens Point, WI 54481 Phone: (715)346-3665	1	12/99	0 4,300
MWR	APIS	Detering Double-Crested Cormorants from Commercial Fishing Nets Within Apostle Islands National Lakeshore.	Anderson, Dr. R. K. University of WI-Stevens Point College of Natural Resources Stevens Point, WI 54481 Phone: (715)346-3665	25	08/91	0 4,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	APIS	Populations Dynamics, Habitat Use, and Behavior of Black Bears on Stockton Island, Apostle Islands National Lakeshore.	Anderson, Dr. R. K. University of WI-Stevens Point College of Natural Resources Stevens Point, WI 54481 Phone: (715)346-3665	75	03/92	0 18,500
MWR	APIS	Determine Abundance of Forage Fish.	Balcer, M. D. University of Wisconsin-Superior CLSES-1800 Grand Avenue Superior, WI 54880 Phone: (715)394-8424	90	10/89	1 2,200
MWR	APIS	Bald Eagle Blood Collection for Contaminant Analysis.	Bowerman IV, W. W. Michigan State University Pesticide Research Center East Lansing, MI 48824 Phone: (517)353-9430	50	03/90	1 0
MWR	APIS	Status of the Eastern Taiga Merlin in the Upper Midwest Region.	Doolittle, T. C. Cable Natural History Museum Box 716 Cable, WI 54821 Phone: (715)373-2703	75	12/91	0 5,500
MWR	APIS	Geomorphic Processes on Long Island.	Green III, Dr. T. University of Wisconsin Department of Civil and Env. Eng. Department of Geology Madison, WI 53706 Phone: (608)262-0038	50	09/90	20,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	APIS	Genetic variation of taxonomic traits of the northern red oak complex on the Apostle Islands.	Isebrands, J. G. USDA-Forest Service North Central Forest Exp. Station P.O. Box 898 Rhinelander, WI 54501 Phone: (715)362-7474	25	09/91	0 10,000
MWR	APIS	Sea-Kayak Use in the Apostle Islands.	Lime, Dr. D. W. University of Minnesota Forest Resources Department 110 Green Hall St. Paul, MN 55108 Phone: (612)624-2250	27	07/90	10,000 8,860
MWR	APIS	Toxicity in Colonial Waterbird Eggs and the Relationship to Deformities in Hatchlings.	Ludwig, J. P. The Acadamy Center 512 N. Lincoln Bay City, MI 48708 Phone: (517)892-8681	1	12/99	1 0
MWR	APIS	Island Biodiversity of the Flora of the Apostle Islands.	Middleton, Dr. A. Iowa State University Botany Department Bessey Hall, ISU Ames, IA 50011 Phone: (515)294-0132	10	01/90	100 200
MWR	APIS	Literature Search.	Mladenoff, D. J. University of Minnesota, Duluth Natural Resources Research Instit. 5013 Miller Trunk Highway Duluth, MN 55811 Phone: (218)720-4279	35	06/90	4,500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	APIS	Evaluation of Piping Plover Habitat in the Great Lakes National Lakeshores.	Nordstrom, L. H. University of MO-Columbia 112 Stephens Hall Columbia, MO 65211 Phone: (314)882-3436	85	04/90	3,140 0
MWR	APIS	Beaver Ecology in the Apostle Islands.	Peterson, Dr. R. O. Michigan Technological University Forestry Department Houghton, MI 49931 Phone: (906)487-2179	60	10/90	15,000 0
MWR	APIS	The Reconstruction of the Original Forest Composition on the Apostle Islands from Pollen Analysis and Identification of Stump Wood.	Swain, A. M. University of Wisconsin-Madison Center for Climatic Research 1225 West Dayton Street Madison, WI 53706 Phone: (608)845-9270	85	06/89	5,000 0
MWR	APIS	The Feasibility of Collecting Zooplankton Using an Experimental Method.	Whiteside, M. C. University of Minnesota Department of Biology 221 Life Science Building Duluth, MN 55812 Phone: (218)726-7264	1	12/99	1 0
MWR	CUVA	Cuyahoga River Fish Tissue Investigation	Tuckerman, Mr. S. Ohio E.P.A. 2110 East Aurora Road Twinsburg, OH 44087 Phone: (216)425-9171	33	11/91	300 32,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	EFMO	Historic Orchard Survey	Coli, Dr. W. M. University of Massachusetts Fernald Hall Amherst, MA 01003 Phone: (313)545-2283	100	10/89	1,200 0
MWR	FOLS	Prairie Restoration Monitoring Program	Ernsting, Mr. G. National Park Service Fort Larned NHS Route 3 Larned, KS 67550 Phone: (316)285-6911	100	12/89	2,000 0
MWR	GWCA	Germination/Viability Rates of SORGHASTRUM NUTANS and FESTUCA ELATIER (also identification of: PETALOSTEMON PURPUREUM, PETALOSTEMON CANDIDUM, AMORPHA CANESCENS and ECHINACEA PURPUREA).	Arbogast, R. L. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)625-9376	100	05/89	0 1
MWR	GWCA	Environmental Impact Statement for the Proposed Draining of Williams Pond at George Washington Carver National Monument.	Deitz, R. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)782-5111	100	05/89	0 1
MWR	GWCA	The Effects of Burning on Microarthropods and Soil Fertility.	Donham, R. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)625-9376	100	05/89	0 1

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	GWCA	Water Quality Work Plan for George Washington Carver National Monument.	Kondratieff, B. C. Colorado State University Dept. of Entomology Fort Collins, CO 80523 Phone: (303)491-7314	30	12/90	1 0
MWR	GWCA	Small Mammal Survey at George Washington Carver National Monument.	LaFerla, M. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)625-9376	100	05/89	0 1
MWR	GWCA	A Floristic Survey of the Woody Vegetation of George Washington Carver National Monument in Newton County, Missouri.	Marston, T. G. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)625-9376	100	05/89	0 1
MWR	GWCA	Evidence of Dogs and Deer at George Washington Carver National Monument.	Metts, S. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)625-9376	100	05/89	0 1
MWR	GWCA	Human Impact on Red-Tailed Hawk Behavior at George Washington Carver National Monument.	Reed, R. M. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)625-9376	100	05/89	0 1

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	GWCA	Heavy Metal Study at George Washington Carver National Monument.	Smith, S. L. Missouri Southern State College Newman & Duquesne Roads Joplin, MO 64801 Phone: (417)625-9376	100	05/89	0 1
MWR	HEHO	Prairie Inventory: Herbert Hoover National Historic Site 1989.	Christiansen, Dr. P. A. Cornell College Mt. Vernon, IA 52314 Phone: (319)895-4214	100	02/90	950 0
MWR	HEHO	Water Quality Work Plan for Herbert Hoover National Historic Site.	Kondratieff, B. C. Colorado State University Dept. of Entomology Fort Collins, CO 80523 Phone: (303)491-7314	30	12/90	1 0
MWR	HOME	Water Quality Work Plan for Homestead National Monument.	Kondratieff, B. C. Colorado State University Dept. of Entomology Fort Collins, CO 80523 Phone: (303)491-7314	30	12/90	165 0
MWR	HSTR	Oral History	Dunar, Dr. A. J. University of Alabama 13027 Branscomb Road Huntsville, AL 35803 Phone: (205)895-6310	100	09/89	0 2,500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	ILMI	A Profile of Commercial/Industrial Activity and Associated Impacts on Enjoyable Recreational Use of the Upper Illinois Waterway	Burdge, Dr. R. J. University of Illinois Institute for Environmental Studies 408 S. Goodwin Ave. Urbana, IL 61801 Phone: (217)333-2916	100	07/89	17,500 31,611
MWR	INDU	Acid Precipitation Monoitoring at Indiana Dunes National Lakeshore.	Brenan, L. S. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	6,000 0
MWR	INDU	Bacterial Contaminant Monitors of the Waters of Indiana Dunes National Lakeshore.	Brenan, L. S. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	6,000 0
MWR	INDU	Sulfur Dioxide Levels at Indiana Dunes National Lakeshore.	Brenan, L. S. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	1 0
MWR	INDU	Ozone Monitoring at Indiana Dunes National Lakeshore.	Brenan, L. S. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	10,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	INDU	Patterns and Levels of Genetic Variation.	Brooks, R. E. University of Kansas Kansas Biological Survey Lawrence, KS 66045 Phone: (913)864-4493	100	12/89	1 0
MWR	INDU	Shallow Ground-Water Flow and Stream-Aquifer Relations in the Great Marsh Wetland, Indiana Dunes National Lakeshore.	Cohen, D. A. U.S. Geological Survey Water Resources Division 5957 Lakeside Blvd. Indianapolis, IN 46278-1996 Phone: (317)290-3330	75	12/99	1 0
MWR	INDU	Monitoring the Water Resources of Indiana Dunes National Lakeshore.	Cohen, D. A. U.S. Geological Survey Water Resources Division 5957 Lakeside Blvd. Indianapolis, IN 46278-1996 Phone: (317)290-3330	50	12/99	1 0
MWR	INDU	Hydrogeology of Indiana Dunes National Lakeshore.	Cohen, D. A. U.S. Geological Survey Water Resources Division 5957 Lakeside Blvd. Indianapolis, IN 46278-1996 Phone: (317)290-3330	99	12/90	1 0
MWR	INDU	Effects of Prescribed Burning on Prairie and Oak Woodland Communities of Indiana Dunes National Lakeshore.	Cole, K. L. Indiana Dunes National Lakeshore 1100 North Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	70	12/96	20,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	INDU	Paleoecology and Pre-Settlement Vegetation of Indiana Dunes National Lakeshore.	Cole, K. L. Indiana Dunes National Lakeshore 1100 North Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	80	12/91	10,000 0
MWR	INDU	History of Heavy Metal Accumulation in Cowles Bog, Indiana.	Cole, K. L. Indiana Dunes National Lakeshore 1100 North Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	100	12/90	5,000 0
MWR	INDU	Taxonomic and Ecological Study of Phlox bifida Complex.	Cypher, E. Southern Illinois University Dept. of Botany RR #2 Box 302 Makanda, IL 62958 Phone: (618)453-2496	75	07/90	1 0
MWR	INDU	Fire Weather Monitoring.	Douhan, C. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	4,500 0
MWR	INDU	European Alder Eradication Program.	Douhan, C. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	2,400 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	INDU	Gypsy Moth Monitoring.	Douhan, C. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	1	12/99	1,500 0
MWR	INDU	Incidence of Lyme disease at Indiana Dunes National Lakeshore.	Fagre, Dr. D. B. National Park Service Indiana Dunes National Lakeshore 1100 North Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	1	10/99	3,500 0
MWR	INDU	Mammal Distribution and Abundance in Habitat Mosaics.	Fagre, Dr. D. B. National Park Service Indiana Dunes National Lakeshore 1100 North Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	1	10/96	5,000 0
MWR	INDU	Roadkill Survey.	Harris, R. L. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	0	12/99	400 0
MWR	INDU	Geographic Information System - Baseline Digital Database Construction.	Harris, R. National Park Service Indiana Dunes National Lakeshore 1100 N. Mineral Springs Road Porter, IN 46304 Phone: (219)926-7561	80	07/90	30,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	INDU	Verify Occurence of Karner Blue Butterfly.	Martin, M. Indiana Div. of Nature Preserves Dept. of Natural Resources Room 605B, State Office Bldg. Indianapolis, IN 46204 Phone: (317)232-4052	1	06/92	1 0
MWR	INDU	Inventory and Monitoring of Sand Thistle (Cirsium pitcheri) in the Great Lakes National Parks.	McEachern, A. K. National Park Service Indiana Dunes National Lakeshore 1100 North Mineral Springs Road Porter, IN 46304 Phone: (219)926-7561	50	09/93	1 0
MWR	INDU	Fuel Loading Studies.	O'Brien, D. National Park Service Lakeshore Indiana Dunes National Lakeshore 1100 North Mineral Spring Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	1 0
MWR	INDU	Natural Succession on Former Homesites at Indiana Dunes National Lakeshore.	Parry, B. University of Wisconsin-Madison Birge Hall Dept. of Botany Madison, WI 53706 Phone: (608)262-2593	50	06/90	1 0
MWR	INDU	Herbarium.	Pavlovic, N. B. National Park Service Indiana Dunes National Lakeshore 1100 North Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	50	12/99	1 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	INDU	Minimum Viable Populations of Fame Flower (Talinum rugospermum)	Pavlovic, N. B. Indiana Dunes National Lakeshore National Park Service 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	40	06/93	3,500 0
MWR	INDU	Plant Research at Miller Woods Near Douglas EE Center.	Peloquin, R. L. Purdue University Calumet Campus Hammond, IN 46323 Phone: (219)844-0520	50	12/92	1 0
MWR	INDU	Structuring of Pond Communities by Predation.	Poulson, T. L. University of Illinois 540 South Ninth St. LaGrange, IL 60525-3002 Phone: (708)352-3460	50	12/94	1 0
MWR	INDU	Distribution and Ecology of Amphibians and Reptiles.	Resetar, A. 482 Park Avenue Valparaiso, IN 46304 Phone: (219)465-7231	65	09/90	1 0
MWR	INDU	Investigation of Genetic Variation and its Expression.	Scheiner, S. Northern Illinois University Dept. of Biol. Sciences DeKalb, IL 60115-2861 Phone: (815)753-7847	10	06/94	0 3,500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	INDU	Lake Level Variation in Lake Michigan: Magnitude and Timing of Past and Future Fluctuations.	Thompson, T. A. Indiana Geological Survey 611 North Walnut Grove Bloomington, IN 47405 Phone: (812)335-2687	85	06/91	0 38,000
MWR	INDU	Vertebrates of Lupine Lane Prairie.	Werth, R. J. Purdue University - Calumet Dept. of Biology Hammond, IN 46323 Phone: (219)989-2416	100	12/88	1,000 2,500
MWR	INDU	Mammal Survey.	Whitaker, Jr., J. O. Indiana State University Terre Haute, IN 47809 Phone: (812)237-2383	95	12/90	1 0
MWR	INDU	Base-line Data on Interstitial Sand Invertebrates.	Whitman, R. L. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Road Porter, IN 46304 Phone: (219)926-7561	100	12/89	1 0
MWR	INDU	Grasshopper Research.	Willey, Dr. R. B. University of Illinois Dept. of Biol. Sciences M/C 066 P.O Box 4348 Chicago, IL 60680 Phone: (312)996-8674	50	12/99	1 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	INDU	Aquatic Biology of Interdunal Ponds	Willey, R. L. University of Chicago at Chicago Dept. of Biological Sciences Box 4348 Chicago, IL 60680 Phone: (312)702-7963	33	06/99	1 0
MWR	ISRO	Forest Ecology and Moose/Plant Interactions	Allison, Dr. T. D. Ohio State University 1465 Mt. Vernon Ave. Marion, OH 43302 Phone: (614)389-2361	100	09/89	0 1
MWR	ISRO	Determining Contaminant Levels of Nestling Eagles near Michigan's Great Lakes	Bowerman, Mr. W. W. U.S. Fish & Wildlife Service 1405 S. Harrison Rd. #302 East Lansing, MI 48823 Phone: (517)337-6650	50	04/90	0 34,850
MWR	ISRO	Invertebrate Survey By College Honor Students	Bradley, Dr. R. A. Ohio State University, Marion Cmps. Zoology Department 1465 Mt. Vernon Avenue Marion, OH 43302-5695 Phone: (614)389-6786	100	09/89	0 625
MWR	ISRO	Inventory and Conservation of Genetic Resources in the Form of Historically Significant Fruit Trees in the National Park System.	Coli, Dr. W. M. University of Massachusetts Dept. of Entomology Fernald Hall Amherst, MA 01003 Phone: (413)545-2283	50	06/91	1 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	ISRO	The Occurrence of Windthrow and Its Consequences in a Southern Boreal Forest.	Dlutkowski, Ms. S. Michigan Technological University Dept. of Biological Sciences Houghton, MI 49931 Phone: (906)487-2478	30	01/92	20,000 0
MWR	ISRO	Net Economic Value of Recreation in Isle Royale National Park	Donnelly, Dr. D. M. USFS Rocky Mtn Experiment Station 3825 Mulberry St. Fort Collins, CO 80524 Phone: (303)498-1887	1	01/92	0 1
MWR	ISRO	Status of the Eastern Taiga Merlin (Falco c. columbarius) in the Upper Midwest Region	Doolittle, Mr. T. C. Cable Natural History Museum Box 416 Cable, WI 54821 Phone: (715)798-3890	60	01/92	0 2,000
MWR	ISRO	Bryophyte Species And Communities Of Isle Royale	Glime, Dr. J. M. Michigan Technological University Dept. of Biological Sciences Houghton, MI 49931 Phone: (906)487-2546	50	01/95	0 1
MWR	ISRO	Fish Contaminant Monitoring Program	Jamsen, Mr. R. T. Michigan Dept. of Natural Resources Marquette Fisheries Station 484 Cherry Creek Road Marquette, MI 49855 Phone: (906)249-1611	50	12/99	0 1

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	ISRO	Additions to The Flora of Isle Royale National Park	Janke, Dr. R. A. Michigan Technological University Dept. of Biological Sciences Houghton, MI 49931 Phone: (906)487-2034	1	12/99	0 1
MWR	ISRO	Long-term Interactions Between Moose and Forest Vegetation	Jordan, Dr. P. A. University of Minnesota Dept. of Fisheries and Wildlife 1980 Folwell Avenue / Hodson Hall St. Paul, MN 55108 Phone: (612)624-9281	70	12/95	0 1,800
MWR	ISRO	Permanent Plots Inventory and Monitoring	Krumenaker, Mr. R. J. National Park Service Isle Royale National Park 87 N. Ripley St. Houghton, MI 49931 Phone: (906)482-0986	50	09/90	30,000 0
MWR	ISRO	Development of a Geographic Information System for Isle Royale National Park.	Maclean, Dr. A. L. Michigan Technological University School of Forestry & Wood Products Houghton, MI 49931 Phone: (906)487-2030	95	01/90	20,000 0
MWR	ISRO	Northern Blue Butterfly Research	Mueller, Mr. S. J. Ody Brook Enterprises 13010 Northland Drive Cedar Springs, MI 49319 Phone: (616)696-1753	100	09/89	0 1

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	ISRO	The Effects of Large Mammal Browsing on the Dynamics of Northern Ecosystems.	Pastor, Dr. J. University of Minnesota /Duluth Natural Resources Research Inst. 3151 Miller Trunk Highway Duluth, MN 55811 Phone: (218)720-4271	15	01/93	0 1
MWR	ISRO	Wolf and Moose Ecology and Interactions on Isle Royale National Park.	Peterson, Dr. R. O. Michigan Technological University School of Forestry & Wood Products Houghton, MI 49931 Phone: (906)487-2179	1	12/99	64,800 14,000
MWR	ISRO	Colonial Nesting Bird Census - U.S. Great Lakes	Scharf, Dr. W. C. Northwestern Michigan College 101 Science Bldg., N.M.C. 1701 E. Front Street Traverse City, MI 49684 Phone: (616)922-1275	100	09/89	0 61,000
MWR	ISRO	Small-Mesh Gill Net Assessment of Juvenile and Adult Fish Stocks in Near Shore Waters of Lake Superior, Isle Royale National Park.	Selgeby, Dr. J. U.S. Fish & Wildlife Service Ashland Biological Station 2800 East Front Street Ashland, WI 54806 Phone: (715)682-6163	100	08/89	0 12,000
MWR	ISRO	Continuing Beaver Studies At Isle Royale.	Shelton, Dr. P. C. Clinch Valley College Wise, VA 24293 Phone: (703)328-0202	75	06/90	2,200 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	ISRO	Produce Soil Map of Isle Royale National Park	Shetron, Dr. S. G. Michigan Technological University School of Forestry & Wood Products Houghton, MI 49931 Phone: (906)487-2321	60	06/90	30,000 0
MWR	ISRO	Density Dependence and Population Dynamics in the Chorus Frog	Smith, Dr. D. C. Williams College Biology Department Williamstown, MA 01267 Phone: (413)597-3081	100	09/89	0 141,000
MWR	ISRO	Role of Modeling in the Inventory and Monitoring of National Parks: Isle Royale National Park as a Case Study	Stottlemyer, Dr. J. R. NPS-Coop. Park Studies Unit Michigan Technological University Department of Biological Sciences Houghton, MI 49931 Phone: (906)487-2478	25	12/90	28,000 0
MWR	ISRO	Effects of Atmospheric Acid Deposition on Watershed/Lake Ecosystems of Isle Royale, Pictured Rocks, and Michigan's Upper Peninsula	Stottlemyer, Dr. J. R. NPS-Coop. Park Studies Unit Michigan Technological University Department of Biological Sciences Houghton, MI 49931 Phone: (906)487-2478	90	01/91	0 97,000
MWR	ISRO	Population Biology of the Dragonfly AESHNA JUNCEA	Van Buskirk, Mr. J. Duke University Department of Zoology Durham, NC 27706 Phone: (919)684-5257	75	10/90	0 9,500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	ISRO	Assesment of Conditions for Conducting Aquatic Research at Isle Royale National Park	Vrana, Mr. K. Michigan State University Sea Grant/Bottomland Preserve Pgm. Natural Resources Building East Lansing, MI 48824 Phone: (517)353-9568	50	01/90	0 1
MWR	LIBO	Gypsy Moth Early Detection Program	Adams, D. F. National Park Service Lincoln Boyhood National Memorial Lincoln City, IN 47552 Phone: (812)937-4541	1	12/99	1 0
MWR	LIBO	Forest Restoration at Lincoln Boyhood	Adams, D. F. National Park Service Lincoln Boyhood National Memorial Lincoln City, IN 47552 Phone: (812)937-4541	100	12/89	1 0
MWR	MOCI	Palynological Studies in the Vicinity of Mound City Group.	Snyder, G. G. Schoolcraft College 18600 Haggerty Rd. Livonia, MI 48152 Phone: (313)455-5342	80	07/90	8,825 0
MWR	MWRO	An Assessment of Exotic Plants Within Great Plains Parks of the Midwest Region.	Stubbendieck, J. L. University of Nebraska-Lincoln Department of Agronomy 349 Keim Hall Lincoln, NE 68583 Phone: (402)472-1519	33	06/91	30,000 1,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	OZAR	Delineation of Recharge Areas for Four Important Cave Streams, Ozark NSR.	Aley, Mr. T. Ozark Underground Laboratory Protem, MO 65733 Phone: (417)785-4289	100	04/89	6,000 0
MWR	OZAR	Sole Source Aquifer Petition for Big Spring Recharge Area.	Aley, Mr. T. Ozark Underground Laboratory Protem, MO 65733 Phone: (417)785-4289	100	12/89	3,000 0
MWR	OZAR	Application of the Index of Biotic Integrity to Resource Inventory in the Current River Basin, Missouri.	Boyle, T. P. Colorado State University 335 Aylesworth Hall NW Fort Collins, CO 80523 Phone: (303)491-1452	98	03/90	13,000 0
MWR	OZAR	Designing a Land Recreation Monitoring System for Ozark National Scenic Riverways.	Chilman, Mr. K. C. Southern Illinois University Dept. of Forestry Carbondale, IL 62901 Phone: (618)453-3341	25	09/93	6,000 0
MWR	OZAR	Water-Quality Monitoring, Ozark National Scenic Riverways.	Davis, J. V. USGS, Water Resources Division 1400 Independence Rd. Mail Stop 200 Rolla, MO 65401 Phone: (314)341-0839	100	12/89	4,800 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	OZAR	Mammals of the Ozark National Scenic Riverways.	Fritzell, Dr. E. K. University of Missouri School of Natural Resources 112 Stephens Hall Columbia, MO 65211 Phone: (314)882-3436	75	08/90	4,941 21,200
MWR	OZAR	Mammals of ONSR - Distribution and Identity of WID Gastrointestinal Parasites in Missouri.	Fritzell, Dr. E. K. University of Missouri School of Natural Resources 112 Stephens Hall Columbia, MO 65211 Phone: (314)882-3436	1	12/99	1 0
MWR	OZAR	Glades of the Ozark National Scenic Riverways.	Glenn-Lewin, Dr. D. C. Iowa State University Department of Botany Ames, IA 50011 Phone: (515)294-3523	70	02/91	34,515 0
MWR	OZAR	Restoration of Ruffed Grouse in the Ozark Highlands.	Kurzejeski, Mr. E. W. Missouri Department Conservation 1110 S. College Ave. Columbia, MO 65201 Phone: (314)882-9880	50	05/99	0 60,000
MWR	OZAR	Current River Gigging Study.	Legler, R. E. Missouri Department of Conservation P.O. Box 138 West Plains, MO 65775 Phone: (417)256-7161	100	02/89	0 500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	OZAR	The Stoneflies (Plecoptera) of the Ozark & Ouachita Mountains.	Poulton, Dr. B. C. Nat. Fish Contaimin. Res. Center U.S. Fish & Wildlife Service 4200 New Haven Rd. Columbia, MO 65201 Phone: (314)875-5399	100	08/89	0 3,000
MWR	OZAR	Secondary Production in an Ozark Stream.	Rabeni, Mr. C. University of Missouri USFWS MO Coop F&W Research Unit 112 Stephens Hall Columbia, MO 65211 Phone: (314)882-3524	97	06/90	1 0
MWR	OZAR	Movement and Habitat Use of the Northern Hog Sucker in the Current River, Missouri.	Rabeni, C. F. University of Missouri USFWS MO Coop F&W Research Unit 112 Stephens Hall Columbia, MO 65211 Phone: (314)882-3524	70	08/90	3,600 7,000
MWR	PEVI	"The Smasher" - The Carronade and its Influence on American Naval Tactics at the Battle of Lake Erie	Altoff, G. T. NPS, Perry's Victory & IPM P.O. Box 549 93 Delaware Avenue Put-in-Bay, OH 43456 Phone: (419)285-2184	100	10/89	1,600 2,600
MWR	PIPE	Prairie Restoration	Boudreau, D. L. National Park Service Pipestone National Monument P.O. Box 727 Pipestone, MN 56164 Phone: (507)825-5464	1	12/99	25,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	PIPE	Prescribed Burn 1989	Boudreau, D. L. National Park Service Pipestone National Monument P.O. Box 727 Pipestone, MN 56164 Phone: (507)825-5464	1	12/99	770 0
MWR	PIPE	Fire Weather Station Monitoring	Boudreau, D. L. National Park Service Pipestone National Monument P.O. Box 727 Pipestone, MN 56164 Phone: (507)825-5464	1	12/99	1 0
MWR	PIPE	Water Quality Work Plan for Pipestone National Monument	Kondratieff, B. C. Colorado State University Dept. of Entomology Fort Collins, CO 80523 Phone: (303)491-7314	30	12/90	5,000 0
MWR	PIPE	Fishes of Pipestone National Monument	Schmidt, K. North American Native Fishes Assn. 1508 Fairmount Ave. St. Paul, MN 55105 Phone: (612)699-6832	100	12/89	1 0
MWR	PIPE	Plant Exploration in the Midwestern States of the U.S.A. to Collect Big Bluestem, Switchgrass, and Indiangrass Germplasm for Forage Plant Improvement.	Vogel, K. P. U.S. Department of Agriculture 332 Keim Hall, East Campus University of Nebraska Lincoln, NE 68583 Phone: (402)472-1564	1	12/99	0 5,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	PIRO	Status of Furbearers and Moose within Pictured Rocks National Lakeshore, MI.	Daues, Mr. T. V. University of Wisconsin-Stevens Pt. College of Natural Resources Stevens Point, WI 54481 Phone: (715)346-2178	55	12/90	11,500 0
MWR	PIRO	Vegetation Response to Disturbance within Pictured Rocks National Lakeshore.	Loope, Dr. W. L. National Park Service P.O. Box 40 Sand Point Road Munising, MI 49862 Phone: (906)387-2607	90	12/90	1 0
MWR	PIRO	Population Biology and Landscape Ecology of Dune Thistle (Cirsium pitcheri) in Great Lakes National Lakeshores.	McEachern, I. A. K. Great Lakes Coop. Park Studies Unit 1040 WARF Building 610 Walnut St. Madison, WI 53705 Phone: (608)262-2779	50	10/91	8,000 0
MWR	PIRO	Monitoring Program Implementation for Several Rare Botrychium (grapefern) Species within the Pictured Rocks National Lakeshore, Michigan.	Schultz, Ms. J. L. Northern Michigan University Dept. of Biology Marquette, MI 49855 Phone: (906)345-9885	90	12/89	2,000 0
MWR	PIRO	Effects of Atmospheric Acid Deposition on Watershed/Lake Ecosystems of Isle Royale, Pictured Rocks and Michigan's Upper Peninsula.	Stottlemyer, Dr. J. R. National Park Service Dept. of Biological Sciences Michigan Technological University Houghton, MI 49931 Phone: (906)487-2478	90	11/90	0 37,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	SACN	Aquatic resource inventory and monitoring of the SACN	Boyle, Dr. T. P. Colorado State University NPS-Water Resources Division 332 Aylesworth Hall NW Fort Collins, CO 80523 Phone: (303)491-1452	90	09/90	25,000 0
MWR	SACN	Freshwater Mussel Monitoring on the St. Croix River, 1989.	Heath, D. J. Wisconsin DNR Bureau of Endangered Resources Box 7921 Madison, WI 53707 Phone: (608)266-024	1	12/99	1 1
MWR	SACN	Assessment of point and non-point sources on SACR	Nimmo, Dr. D. W. Colorado State University NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)491-0695	50	09/90	2,000 0
MWR	SACN	Status and Distribution of Stream Dragonflies.	Smith, W. A. WI Department of Natural Resources Box 7921 Madison, WI 53707 Phone: (608)266-0924	50	04/91	0 1,400
MWR	SACN	Critical Habitat Use by Migrating Birds in the St. Croix Valley	Weisbrod, A. R. National Park Service Spring Creek Field Laboratory Bell Museum of Natural History Marine on St. Croix, MN 55047 Phone: (612)433-5663	57	01/91	1 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	SACN	Lichens and Air Pollution in the St. Croix National Riverway.	Wetmore, C. University of Minnesota 220 Biological Sciences Center 1445 Gortner Avenue St. Paul, MN 55108 Phone: (612)625-1234	50	01/91	1 0
MWR	SCBL	Ecology of Burrowing Owls in Nebraska.	Desmond, Ms. M. J. University of Nebraska Dept. Forestry, Fisheries, Wildlife 202 Natural Resources Hall Lincoln, NE 68583-0819 Phone: (402)472-6826	50	12/90	0 21,500
MWR	SCBL	Fire Ecology and Management of Scotts Bluff and Agate National Monuments.	Dodd, Dr. J. L. University of Wyoming Department of Range Management University Station, Box 3354 Laramie, WY 82071 Phone: (307)766-3666	60	12/90	10,000 0
MWR	SCBL	Faunal Survey of Birds, Mammals, and Reptiles in Scotts Bluff National Monument.	Franklin, Dr. W. L. Iowa State University Department of Animal Ecology 124 Sciences II Ames, IA 50010 Phone: (515)294-1240	100	05/89	42,533 25,862
MWR	SCBL	Ar-Ar Dating of Brule Formation Ash Beds of White River Group.	Swinehart, Mr. J. B. University of Nebraska-Lincoln Conservation and Survey Division 113 Nebraska Hall Lincoln, NE 68588-0517 Phone: (402)472-7529	50	05/90	0 500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	SCBL	Vegetation Survey of Scotts Bluff and Agate Fossil Beds National Monuments.	Weedon, Mr. R. R. Natural Resources Enterprises, Inc. 703 Mears Street Chadron, NE 69337 Phone: (308)432-4451	95	10/90	1 0
MWR	SLBE	Long-Term Study of Canada Yew Reproductive Ecology.	Allison, Dr. T. D. Ohio State University Botany Department 1465 Mt. Vernon Avenue Marion, OH 43302 Phone: (614)389-6786	33	12/99	0 1,600
MWR	SLBE	Risk analysis of aquatic natural resources of SLBE	Boyle, Dr. T. P. Colorado State University NPS-Water Resources Division 332 Aylesworth Hall NW Fort Collins, CO 80521 Phone: (303)491-1452	10	12/92	75,000 0
MWR	SLBE	Long-Term Vegetative and Topographic Monitoring on Sleeping Bear Dunes Plateau and Dunes.	Chubb, Dr. M. Michigan State University Department of Geography 315 Natural Science East Lansing, MI 48823-1115 Phone: (517)353-9031	5	09/89	0 10,000
MWR	SLBE	Waterfowl Survey in Sleeping Bear Dunes National Lakeshore	Holden, Mr. M. W. Sleeping Bear Dunes NL P.O. Box 277 Empire, MI 49630 Phone: (616)326-5134	60	12/92	200 400

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	SLBE	North Manitou Island White-tailed Deer Population and Habitat Study.	Holden, Mr. M. W. Sleeping Bear Dunes NL P.O. Box 277 Empire, MI 49630 Phone: (616)326-5134	50	12/92	5,000 0
MWR	SLBE	Upland Sandpiper Population and Habitat Survey	Holden, Mr. M. W. Sleeping Bear Dunes NL P.O. Box 277 Empire, MI 49630 Phone: (616)326-5134	20	12/93	1 0
MWR	SLBE	Piping Plover Nesting Survey	Holden, Mr. M. W. Sleeping Bear Dunes NL P.O. Box 277 Empire, MI 49630 Phone: (616)326-5134	20	12/95	500 0
MWR	SLBE	Population Biology and Landscape Ecology of Dune Thistle (Cirsium pitcheri) in Great Lakes National Lakeshores.	McEachern, I. A. K. Great Lakes Coop. Park Studies Unit 1040 WARF Building 610 Walnut St. Madison, WI 53705 Phone: (608)262-2779	50	10/91	8,000 0
MWR	SLBE	Evaluation of Piping Plover Habitat in the Great Lakes' National Lakeshores.	Nordstrom, L. H. University of Missouri-Columbia 112 Stephens Hall Columbia, MO 65211 Phone: (314)882-3436	85	04/90	3,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	SLBE	Bird Migration and Small Mammal Populations on The Manitou Islands.	Scharf, Dr. W. C. Northwestern Michigan College P.O. Box 277 Traverse City, MI 49684 Phone: (616)922-1260	50	12/99	0 1,000
MWR	VOYA	Habitat Assessment for Woodland Caribou at Voyageurs National Park.	Associates, B. &. P.O. Box 1425 International Falls, MN 56649 Phone: (000)000-0000	60	01/91	1 0
MWR	VOYA	The Biology, Present Distribution, and Potential for Dispersal of Rainbow Smelt, with Particular Reference to Waters Affected by the Garrison Diversion Unit.	Barton, Dr. B. A. University of North Dakota Department of Biology Box 8238, University Station Grand Forks, ND 58202 Phone: (701)777-2621	50	06/91	1 0
MWR	VOYA	A Structural-Metamorphic Transect of the Vermilion Granitic Complex, NE Minnesota.	Bauer, Dr. R. L. Universtiy of Missouri-Columbia Department of Geology 101 Geology Building Columbia, MI 65211 Phone: (314)882-3759	70	10/90	0 33,000
MWR	VOYA	Acid Rain Wet Deposition.	Bock, D. C. Minnesota Pollution Control Agency 520 Lafayette Road St. Paul, MN 55155 Phone: (612)296-7338	67	01/96	1 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	VOYA	Bald Eagle Blood Collection for Contaminated Analysis.	Bowerman, W. W. Michigan State University Department of Fish and Wildlife Pesticide Research Center East Lansing, MI 48824 Phone: (517)353-9195	50	05/90	0 12,350
MWR	VOYA	Long Term Trends in Lake Chemistry Related to Acid Deposition in the Upper Great Lakes States.	Brezonik, P. L. University of Minnesota-Minneapolis Minneapolis, MN 55455 Phone: (612)624-9282	90	07/91	0 54,700
MWR	VOYA	Status of the Eastern Taiga Merlin (Falco c. columbarius) in the Upper Midwest Region.	Doolittle, T. C. Apostle Island NL Route 1, Box 4 Bayfield, WI 54814 Phone: (715)779-3397	60	01/92	0 2,000
MWR	VOYA	Criteria Pollutant Monitoring.	Flores, M. NPS Air Quality Division Permit Rev. & Tech. Support Branch P.O. Box 25287 Denver, CO 80225 Phone: (303)969-2072	35	01/98	1 0
MWR	VOYA	Assessment of Mercury Toxicity in Selected Minnesota Lakes and Streams.	Glass, G. E. US Environmental Protection Agency Environmental Research Laboratory 6201 Congdon Boulevard Duluth, MN 55804 Phone: (218)720-5526	67	07/91	0 2

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	VOYA	Restore Absent and Declining Wildlife.	Gogan, P. J. Voyageurs NP P.O. Box 50 International Falls, MN 56649 Phone: (218)283-9821	75	07/91	75,000 0
MWR	VOYA	Wolf Research.	Gogan, P. J. Voyageurs NP P.O. Box 50 International Falls, MN 56649 Phone: (218)283-9821	50	01/92	25,000 0
MWR	VOYA	Using Geographic Information Systems to Assess Moose Habitat.	Grigal, Professor, D. F. University of Minnesota Department of Soil Science 1991 Upper Buford Circle St. Paul, MN 55108 Phone: (612)625-4232	40	10/91	0 39,300
MWR	VOYA	Bald Eagle, Osprey, Great Blue Heron, Double-crested Cormorant, Common Tern, and Herring and Ring-billed Gull Surveys.	Grim, L. H. Voyageurs NP P.O. Box 50 International Falls, MN 56649 Phone: (218)284-9821	1	12/99	1 0
MWR	VOYA	PCBs and Hg in the St. Louis & Mississippi Rivers & in Sandpoint and Crane Lakes.	Helwig, D. MN Pollution Control Agency 520 Lafayette Road St. Paul, MN 55155 Phone: (612)296-7250	20	06/91	0 230,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	VOYA	Contaminant Analysis for Fish Advisories & Trend Analyses.	Helwig, D. MN Pollution Control Agency 520 Lafayette Road St. Paul, MN 55155 Phone: (612)296-7250	5	01/91	0 10,000
MWR	VOYA	A Structural and Metamorphic Transect of the Vermilion Granitic Complex, NE Minnesota.	Hudleston, D. Department of Geology & Geophysics University of Minnesota-Minneapolis 310 Pillsbury Drive Southeast Minneapolis, MN 55455 Phone: (612)624-1333	95	01/91	0 52,000
MWR	VOYA	Regional Modeling of Trace Gas Production in Grassland and Boreal Ecosystems.	Johnston, D. University of Minnesota Nat. Resources Research Institute 3151 Miller Trunk Highway Duluth, MN 55811 Phone: (218)720-4271	10	01/93	0 447,296
MWR	VOYA	Aquatic Research - Voyageurs National Park.	Kallemeyn, L. W. Voyageurs NP P.O. Box 50 International Falls, MN 56649 Phone: (218)283-9821	1	12/99	1 0
MWR	VOYA	Visibility Monitoring.	Malm, D. NPS Air Quality Division P.O. Box 25287 Fort Collins, CO 80225 Phone: (303)492-8292	35	01/98	1 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	VOYA	Animal Influences on the Aquatic Landscape: Vegetative Patterns, Successional Transitions, and Nutrient Dynamics.	Naiman, D. J. University of Washington Center for Streamside Studies AR-10 Seattle, WA 98195 Phone: (206)543-6920	28	00/99	0 755,676
MWR	VOYA	Archeological Survey of Voyageurs National Park.	Richner, J. J. Midwest Archeological Center Federal Building, Room 474 100 Centennial Mall North Lincoln, NE 68508 Phone: (402)437-5392	90	11/90	1 0
MWR	VOYA	Food Habits of the Timber Wolf in Voyageurs National Park.	Schmidt, J. A. St. Cloud State University Dept. of Biology Science St. Cloud, MN 56301 Phone: (612)255-2036	60	12/99	0 250
MWR	VOYA	Forest Ecosystem Dynamics.	Shugart, D. H. University of Virginia Dept. of Environmental Sciences Clark Hall Charlottesville, VA 2903 Phone: (804)924-7761	80	07/90	0 1
MWR	VOYA	Forest Ecosystem Dynamics.	Smith, D. A. NASA/Goddard Space Flight Center Lab.for Terr. Physics, Bio. Sc. Br. Code 623 Greenbelt, MD 20771 Phone: (301)286-8900	85	12/99	0 1

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	VOYA	Aquatic Macrophyte Communities in Water-level Regulated Lakes at Voyageurs National Park.	Wilcox, D. A. U.S. Fish and Wildlife Service Nat'l Fisheries Center-Great Lakes 1451 Green Road Ann Arbor, MI 48105 Phone: (313)994-3331	100	12/99	1 0
MWR	WICR	Floristic Survey of Poaceae and Cyperaceae of the Wilson's Creek National Battlefield.	Hassien, Mr. F. D. Lincoln University Box 21 Room 252 Founders Hall Jefferson City, MO. 65101 Phone: (314)681-5134	100	01/87	9,800 0
MWR	WICR	Population Ecology of Lesquerella filiformis	Jackson, Dr. J. R. Missouri Southern State College Biology Department Joplin, MO 64801-1595 Phone: (417)625-9578	100	11/90	3,056 1,900
MWR	WICR	Water Quality Work Plan for Wilson's Creek National Battlefield.	Kondratieff, B. C. Colorado State University Dept. of Entomology Fort Collins, CO 80523 Phone: (303)491-7314	70	12/90	5,000 0
MWR	WICR	Assessment of point and non-point sources on WICR	Nimmo, Dr. D. W. Colorado State University NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80523 Phone: (303)491-0695	25	12/90	2,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
MWR	WICR	Population Ecology and Management Recommendations for Lesquerella filiformis at Wilson's Creek National Battlefield Republic, Missouri.	Thomas, Ms. L. P. Wilson's Creek National Battlefield Postal Drawer C Republic, MO 65738 Phone: (417)748-2325	100	12/89	14,590 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	ACAD	The ecology and distribution of the Harlequin Duck (histrionicus histrionicus) wintering off Ilse Au Haut, Maine.	Anderson, J. College of the Atlantic Bar Harbor, ME 04609 Phone: (207)288-5015	75	03/89	1,000 300
NAR	ACAD	Ecology of Jack Pine in Acadia Nat'l Park	Conkey, L. E. Dartmouth College Fairchild Science Center Hanover, NH 03755 Phone: (603)646-3381	65	09/89	10,000 0
NAR	ACAD	Effects of Ozone on Vegetation of Acadia National Park	Eckert, Dr. R. University of New Hampshire Dept. of Forest Resources Durham, NH 03824 Phone: (603)862-2508	20	09/95	0 99,000
NAR	ACAD	Ozone effects Acadia	Eckert, Dr. B. University of New Hampshire Dept. of Forest Resources James Hall Durham, NH 03824 Phone: (603)862-2508	15	10/94	70,000 0
NAR	ACAD	Fire and Natural Resource Simulation System	Garman, S. University of Massachusetts Dept. Forestry & Wildlife Mgmt. Holdsworth Hall Amherst, MA 01002 Phone: (413)545-2757	75	01/90	30,000 5,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	ACAD	The Mayflies (Ephemeroptera) of Acadia National Park	Gibbs, K. E. University of Maine Department of Entomology Orono, ME 04469 Phone: (207)581-2965	100	04/88	11,458 3,820
NAR	ACAD	Ticks and Lyme Disease in National Parks of the United States	Ginsberg, H. Rutgers University Coastal & Environmental Studies Doolittle Hall New Brunswick, NJ 08903 Phone: (201)934-4882	80	12/89	78,000 39,000
NAR	ACAD	Flora of Acadia National Park	Greene, Dr. C. College of the Atlantic Bar Harbor, ME 04609 Phone: (207)288-5015	0	9/90	5,000 0
NAR	ACAD	Inventory and Monitoring Strategy Plan Development for Acadia NP	Greene, Dr. C. College of the Atlantic Bar Harbor, ME 04609 Phone: (207)288-5015	0	1/91	30,000 0
NAR	ACAD	Occurrence, Distribution and Spatial Interactions Among Mammalian Carnivores in Acadia National Park	Harrison, Ms. D. University of Maine Wildlife Department Orono, ME 04469 Phone: (207)581-2867	35	09/90	27,000 9,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	ACAD	Establishment of a calibrated watershed/long term monitoring site at Acadia National Park, Maine	Kahl, J. S. University of Maine Sawyer Environmental Research Ctr. Orono, ME 04469 Phone: (207)581-3286	50	11/89	45,000 0
NAR	ACAD	Gravitational instability in coexisting layered Magmas, Isle Au Haut, Maine	Rhodes, J. M. University of Massachusetts Dept. of Geology & Geography Amherst, MA 01003 Phone: (413)545-2286	5	08/91	0 2,100
NAR	ACAD	The Limnological Effects of Fire	Rhodes, T. University of Maine Department of Botany Orono, ME 04469 Phone: (207)581-2979	50	12/89	0 0
NAR	ACAD	The role of ozone and needle fungi in causing needleblight of Eastern White Pine in Acadia National Park	Skelly, J. M. The Pennsylvania State University Department of Plant Pathology 108 Buckout Lab University Park, PA 16802 Phone:	0	12/89	0 40,000
NAR	ACAD	Distribution patterns and health of Corticolous (barkdwelling) lichens on picea ruben (red spruce) in relation to acid fog, acid rain and ozone levels along coastal Maine.	Stubbs, C. S. University of Maine Dept. of Botany and Plant Pathology Orono, ME 04469 Phone: (207)581-2981	85	12/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	ACAD	Dragonflies and Damselflies of Acadia National Park and vicinity.	White, Dr. H. B. University of Delaware Dept. of Chemistry and Biochemistry Newark, DE 19716 Phone: (302)451-2908	50	12/99	0 1,000
NAR	BOST	Extent of Creosote-Related Contamination of Sediments in the Vicinity of Pier No. 2, Charlestown Navy Yard	Costa, H. J. Batelle Ocean Sciences 397 Washington St. Duxbury, MA 02332 Phone: (617)934-0571	100	10/88	23,000 0
NAR	CACO	Holocene Environmental Evaluation of Peat Bog Near Coast Guard Beach, CACO	Allen, Dr. J. R. 15 State St. Boston, MA 02109 Phone: (617)565-8806	0	0/0	0 0
NAR	CACO	Role of ORV on beach erosion and dune scarping at Race Point, CACO	Allen, Dr. J. R. 15 State St. Boston, MA 02109 Phone: (617)565-8806	0	0/0	8,000 0
NAR	CACO	Demonstration of the use of 3-D ground water modeling for delineation of recharge zones of public-supply wells, Cape Cod, Mass.	Barlow, Dr. P. M. Water Resources Division US Geological Survey 28 Lord Road, Suite 280 Marlborough, MA 01752 Phone: (000)000-0000	60	5/90	0 134,000
NAR	CACO	The Vascular Plants of Cape Cod and the Islands the Lichens of Cape Cod and the Island	Buckley, Ms. A. 6192 SW 2nd St. Plantation, FL 33317 Phone: (305)584-0729	25	0/0	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	CACO	Identification of risk factors associated with Lyme disease in employees of Cape Cod NS	Ciesielski, Dr. C. Division of TB Control E-10 Centers for Disease Control Atlanta, GA 30333 Phone: (000)000-0000	50	0/0	0 0
NAR	CACO	Larval release rhythms in grass shrimp	Douglas, Dr. J. Yale University Kline Biology Tower New Haven, CT 06511 Phone: (203)432-3496	100	8/88	0 20
NAR	CACO	The changing sulfur cycle of lakes: It's ecological significance in element cycle interactions and productivity	Gilblin, Dr. A. E. Marine Biological Laboratory The Ecosystems Center Woods Hole, MA 02543 Phone: (000)000-0000	66	2/90	0 246,765
NAR	CACO	Ticks and Lyme Disease in National Parks of the Eastern US	Ginsberg, Mr. H. Rutgers-The State University of NJ Coastal and Environmental Studies Doolittle Hall-Busch Campus New Brunswick, NJ 08903 Phone: (201)932-4882	0	0/0	78,000 39,000
NAR	CACO	Acid Rain Monitoring Project	Godfrey, Dr. P. J. University of Massachusetts Water Resources Research Center Blaisdell House Amherst, MA 01003 Phone: (000)000-0000	50	1/96	0 450

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	CACO	Ecological Survey of Heathlands in Cape Cod National Seashore	Godfrey, Dr. P. J. University of Massachusetts Botany Department Amherst, MA 01003 Phone: (000)000-0000	98	2/89	46,296 13,699
NAR	CACO	Effects of Human Recreation on Piping Plover Foraging Ecology and Chick Survival	Griffin, Dr. C. R. University of Massachusetts Dept. Inland Fisheries & Wildlife Holdsworth Hall Amherst, MA 01003 Phone: (413)545-2757	50	8/89	0 18,000
NAR	CACO	Population Dynamics, Management, and Breeding Ecology of Piping Plovers on Outer Cape Cod, MA	Griffin, Dr. C. R. University of Massachusetts Dept. Inland Fisheries & Wildlife Holdsworth Hall Amherst, MA 01003 Phone: (413)545-2757	0		20,000 5,000
NAR	CACO	Data Collection In The Pamet River Basin	Harleman, Dr. D. R. Massachusetts Institute of Techn. Parsons Laboratory 48 305 Cambridge, MA 02139 Phone: (617)253-2726	10	5/90	0 7,500
NAR	CACO	Effect of ozone injuried milkweed on Monarch Butterfly growth and reproduction.	Hughes, Dr. P. Boyce Thompson Institute BTI for Plant Res. @ Cornell Univ. Tower Road Ithaca, NY 14853 Phone: (607)254-1234	100	09/89	26,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	CACO	Use of Ground-Penetrating Radar to determine Depth of Water Table	Johnnson, Dr. Phone: (000)000-0000	100	9/88	22,500 22,500
NAR	CACO	Vegetation Communities In A Maritime Ecosystem	Kamman, Mr. N. C. 2 Spalding E. Shore Colchester, VA 05446 Phone: (502)864-8127	90	3/8	0 1,000
NAR	CACO	Native Revegetation Project for Gateway, Fire Island, and Cape Cod	Kuser, Dr. J. E. Rutgers University Cook College P.O. Box 231 New Brunswick, NJ 08903 Phone: (201)932-9211	100	1/89	11,000 15,000
NAR	CACO	Rare Plant Survey	LeBlond, Mr. R. Division of Fisheries & Wildlife Mass. Natural Heritage Program 100 Cambridge Street Boston, MA 02202 Phone: (617)727-9194	90	3/89	0 1,300
NAR	CACO	Vegetation Study of Dune Wetlands	Leblond, Dr. R. Center for Coastal Studies Box 826 Provincetown, MA 02657 Phone: (508)487-3622	80	12/89	1,200 1,700
NAR	CACO	Mill Creek Water Budget Study	Nuttle, Dr. W. P.O. Box 3204 Charlottesville, VA 22903 Phone: (804)924-7761	10	1/90	6,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	CACO	Evaluation of Browntail Moth Suppression Project--1988	O'Brien, Mr. J. T. USDA Forest Service P.O. Box 640 Durham, NH 03824 Phone:	100	2/89	0 30,000
NAR	CACO	Effects of Gypsy Moth Defoliation On Oak Stands	O'Brien, Mr. J. T. USDA Forest Service P.O. Box 640 Durham, NH 03824 Phone: (000)000-0000	80	6/89	0 0
NAR	CACO	Swamp Vegetation Monitoring	Patterson III, Dr. W. A. University of Massachusetts 204 Holdsworth Hall Amherst, MA 01003 Phone: (413)554-5265	10	1/90	800 160
NAR	CACO	The Effects of Mowing and Burning on the Reproduction of Huckleberry	Patterson III, Dr. W. A. University of Massachusetts 204 Holdsworth Hall Amherst, MA 01003 Phone: (413)554-5265	0		18,100 3,620
NAR	CACO	The composition and successional status of plant communities in the Atlantic white cedar swamp, Cape Cod National Seashore	Patterson III, Dr. W. A. University of Massachusetts 204 Holdsworth Hall Amherst, MA 01003 Phone: (413)554-5265	50	8/90	19,750 4,450

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	CACO	Distribution, abundance+selected grey harbor seals in southern New England	Payne, Dr. M. Manamet Bird Observatory Box 936 Manament, MA 02345 Phone: (000)000-0000	90	12/89	0 3,000
NAR	CACO	Natural and Anthropogenic Limits on Deer Populations at Cape Cod	Porter, Dr. W. F. State University of New York College of Environmental Science and Forestry Syracuse, NY 13210 Phone: (315)470-6798	50	10/90	25,000 0
NAR	CACO	Develop and assess mathematical models of saltwater upcoming using wellsite #4 Data	Reilly, Dr. T. . U.S. Geological Survey 411 National Center Reston, VA 22092 Phone: (703)648-5006	100	4/87	0 0
NAR	CACO	Wellfleet Eisleir	Reimolo, Dr. R. J. MEtcalf & Eaddy, Inc P.O. Box 4043 Woburn, MA 01888 Phone: (000)000-0000	75	0/0	0 200,000
NAR	CACO	Development of a prototype geographic information system design for North Atlantic Regional Parks, PHASE 2	Sham, Dr. C. Boston University Department of Geography 675 Commonwealth Ave. Boston, MA 02215 Phone: (617)353-5741	40	8/89	7,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	CACO	Invertebrate survey of the ponds on the Cape Cod National Seashore	Smith, Dr. D. G. University of Massachusetts Department of Zoology Amherst, MA 01003-0027 Phone:	50	0/0	0 200
NAR	CACO	Observation well network	Socodow, Dr. R. U.S. Geological Survey 28 Lord Road, Suite 280 Marlborough, MA 01752 Phone: (000)000-0000	0	0/0	0 1,000
NAR	CACO	Rare Plant Survey for Cape Cod National Seashore	Sorrie, Dr. B. A. Division of Fish. & Wildlife Mass. Ntrl Heritage & Endgrd.Spp. 100 Cambridge St. Boston, MA 02202 Phone: (000)000-0000	100	12/89	0 5,000
NAR	CACO	Finfish Inventory Jamaica Bay	Sperry, Dr. T. Seatuck National Wildlife Refuge U.S. Fish and Wildlife Service P.O. Box 369 Islip, NY 11751 Phone: (000)000-0000	0	0/0	50,000 0
NAR	CACO	Historic and Prehistoric Trends in Pond Acidity in the Cape Cod National Seashore as Interpreted from Diatom Assemblage Changes	Winkler, Dr. M. G. University of Wisconsin Center for Climatic Research 1225 W. Dayton St. Madison, WI 53706 Phone: (608)262-0775	80	8/89	22,000 10,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	CACO	Recent Changes in Trophic Structure of Duck and Bennett Ponds, Provincetown, Relative to Possible Landfill Enrichment	Winkler, Dr. M. G. University of Wisconsin Center for Climatic Research 1225 W. Dayton St. Madison, WI 53706 Phone: (608)262-0775	0	0/0	0 0
NAR	FIIS	Interactions of Vegetation and Visitors in Fire Island N.S. Wilderness Area.	Ehrenfeld, Dr. J. G. Rutgers University Coastal & Environemtnal Studies New Brunswick, NJ 08903 Phone: (201)932-3609	90	03/89	0 0
NAR	FIIS	Ticks and Lyme Disease in National Parks of the Eastern United States.	Ginsberg, Dr. H. Rutgers University Coastal & Environmental Studies Doolittle Hall New Brunswick, NJ 08903 Phone: (201)932-4882	0	01/90	78 39
NAR	FRLA	Development of a computer mapping or CAD system linked with a data base for application in historic landscape restoration and preservation activities.	Sham, Dr. C. Boston University Department of Geology 675 Commonwealth Avenue Boston, MA 02215 Phone: (617)353-5741	50	05/89	6,000 0
NAR	GATE	Landfill Seep Identification, Leachate Contaminants Analysis and Photo documentation of Hazardous Materials Disposal Practices	Ahlert, Dr. R. Rutgers University Department of Chemical Engineering Busch Campus New Brunswick, NJ 08903 Phone: (000)000-0000	75	0/90	120,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	GATE	Ecology of Holly Forest in Sandy Hook, Gateway NRA	Art, Dr. H. Williams College Biology Dept. Williamstown, MA 01267 Phone:	100	1/89	5,000 0
NAR	GATE	Amphibian and Reptile Community Restoration	Behler, Dr. J. Herpetological Department New York Zoological Society Bronx Zoological Park Bronx, NY 10460 Phone: (000)000-0000	60	12/95	26,000 4,000
NAR	GATE	Effects of Landfill Effluents on Subtidal Invertebrates	Borowsky, Dr. B. New York Zoological Society Osborn Laboratory of Marine Science NY Aquarium, Boardwalk at W8th Brooklyn, NY 11224 Phone: (000)000-0000	2	7/92	20,000 0
NAR	GATE	A Comparison of Plankton and Primary Productivity in the Waters of the Gateway National Recreation Area	Cosper, Dr. E. M. Marine Sciences Research Center Stony Brook, NY 11794-5000 Phone: (000)000-0000	100	2/89	7,500 0
NAR	GATE	Amphipod Species Population Dynamics, Jamaica Bay	Franz, Dr. D. Brooklyn College Biology Department Brooklyn, NY 11210 Phone: (718)780-5396	15	6/90	9,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	GATE	Breezy Point Surf Clam (Spisula solidissima) Population Age Structure	Franz, Dr. D. R. Brooklyn College Biology Department Brooklyn, NY 11210 Phone: (000)000-0000	100	3/88	5,000 0
NAR	GATE	Bioaccumulation of Polynuclear Aromatics in the American Lobster, (Homarus americanuus L.)	Molof, Dr. A. Polytechnic University Dept. of Environ. & Civil Eng. 333 Jay Street Brooklyn, NY 11201 Phone: (000)000-0000	10	2/94	6,000 0
NAR	GATE	Finfish Inventory Jamaica Bay	Sperry, Dr. T. U.S. Fish & Wildlife Service Seatuck National Wildlife Refuge P.O. Box 369 Islip, NY 11751 Phone:	0	06/88	50,000 0
NAR	GATE	Histopathological Investigation and PCB Contamination Level in Winter Flounder, Jamaica Bay.	Sperry, Dr. T. A. U.S. Fish & Wildlife Service Seatuck National Wildlife Refuge P.O. Box 369 Islip, NY 11751 Phone: (000)000-0000	90	6/89	20,000 0
NAR	MULT	Ecology, Population Health and Management of Coastal Shore and Waterbirds	Buckley, Dr. P. A. University of Rhode Island-CPSU Graduate School of Oceanography Naragansett, RI 02882 Phone: (401)792-6419	0	11/90	60,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	MULT	Inventory and Conservation of Genetic Resources of Historically Significant Fruit TRees in the NP System	Coli, Dr. B. University of Massachusetts Dept. of Entomology Fernald Hall Amherst, MA 01003 Phone: (413)545-2283	30	12/90	20,000 0
NAR	MULT	Ecology and Ecosystem Restoration of North Atlantic Coastal Wetlands	Soukup, Dr. M. University of Rhode Island Graduate School of Oceanography Naragansett, RI 02882 Phone: (401)792-6419	0	11/90	128,000 0
NAR	MULT	Evaluation of National Natural Landmarks in the New England Adirondack Region	Worley, Dr. I. University of Vermont Botany Dept. Burlington, VT	0	9/90	1,800 0
NAR	ROVA	Effects of Largescale Tree Removal and Hydromulching on the Nutrient Dynamics of a Small Stream	Hill, Dr. B. H. Marist College Biology Department Poughkeepsie, NY 12601 Phone: (914)471-3240	50	05/89	0 1,000
NAR	ROVA	Conduct Survey Of Threatened Species Of Turtle	Klemens, Dr. M. W. American Museum of Natural History Department Of Herpetology Central Park West & 79th St. New York City, NY 10024 Phone: (212)768-5850	50	08/89	10,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NAR	ROVA	A Year-Long Investigation of the Micro-benthic Community in Roosevelt Cove (Home of FDR NHS), with Emphasis on the Protozoa	Perrotte, Dr. W. T. Marist College Biology Department Poughkeepsie, NY 12601-1381 Phone: (914)471-3240	40	07/89	0 18,000
NAR	SARA	The Influence of Gray dogwood (Cornus Racemosa) on Secondary Succession and Forest Regeneration at the Saratoga NHP (SNHP).	Burgess, Dr. R. State Univ. of New York-Syracuse # 8 Illick Hall Syracuse, NY 13210 Phone: (315)470-6741	70	10/89	5,500 0
NAR	SARA	The Interaction of White Tailed Deer and Vegetation on the Saratoga National Historical Park (SNHP).	Porter, Dr. W. F. State Univ. of New York-Syracuse 242 Illick Hall Syracuse, NY 13210 Phone: (315)470-6798	80	05/90	29,500 0
NAR	SARA	Saratoga NHP Exotic Plant Inventory	Stalter, Dr. R. K. St. Johns University Biology Dept. Grand Central & Utopia Parkways Jamaica, NY 11439 Phone: (718)990-6161	60	10/89	1,600 0
NAR	WORI	Manage Historic Trees at Elizabeth Cady Stanton House	Marion, Dr. D. F. Community College of Finger Lakes Plant Pathology Dept. Canandaiguia, NY 14424 Phone: (716)394-6706	100	9/88	3,500 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NCR	CATO	Dogwood Anthracnose	Redlin, Dr. S. . USDA Agricultural Research Service Beltsville Agricultural Research Center Beltsville, MD 20705 Phone: (301)344-3366	20	09/92	27,500 0
NCR	CATO	Freshwater Fish, Water Quality, Macroinvertebrate of Catoctin Mountain Park - 1989	Rivers, S. E. Maryland Dept. of Natural Resources Tawes State Office Bldg. 580 Taylor Ave. Annapolis, MD 21401 Phone: (301)791-4736	100	12/89	0 3,000
NCR	CATO	Catoctin Mountain Park White-tailed Deer Research: 1988-1990	Roddy, D. USDI, National Park Service Catoctin Mountain Park 6602 Foxville Road Thurmont, MD 21788 Phone: (301)293-9536	100	12/89	2,500 0
NCR	CATO	Population and Ecological Characteristics of White-tailed Deer on Catoctin Mountain Park	Warren, R. J. CPSU/The University of Georgia School of Forest Resources Athens, GA 30602 Phone: (404)542-5856	100	03/90	20,000 0
NCR	CATO	1989 Gypsy Moth IPM Program Activities - Catoctin Mountain Park	Whiteman, R. L. USDA, Forest Service 180 Canfield Street Morgantown, WV 26505 Phone: (304)291-4133	100	12/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NCR	HAFE	Special Boundary Study	Edlund, Mr. C. National Park Service P.O. Box 25287 Denver, CO 80225 Phone: (303)969-2410	100	02/90	150,000 0
NCR	HAFE	Package 116 Historic Structures Report, Historic Data Section	Fisher, Mr. P. University of Maryland Department of History College Park, MD 20742-7315 Phone: (304)535-6441	90	09/90	80,000 0
NCR	HAFE	Economic Impact Analysis of Harpers Ferry Special Boundary Study Land Protection Alternatives	Polhemus, Mr. V. The Greeley-Polhemus Group, Inc. 105 South Street West Chester, PA 19382 Phone: (215)692-2224	100	04/90	30,000 0
NCR	HAFE	Package 116, Historic Structures Report, Archeological Data Section	Schakle, Mr. P. National Park Service Harpers Ferry NHP P.O. Box 65 Harpers Ferry, WV 25425 Phone: (304)535-6065	100	09/89	260,000 0
NCR	NACC	Landscape Management Information System	Esse, S. M. University of District of Columbia 4200 Connecticut Avenue, N.W. Washington, D.C. 20008 Phone: (202)282-7379	50	12/90	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NCR	NACC	National Turfgrass Evaluation Program - NCR Urban Studies 1. 1985 Kentuckey Bluegrass Trials 2. 1985 Perennial Ryegrass Trials 3. 1987 Tall Fescue Trials	Patterson, Mr. J. C. NPS - National Capital Region Center for Urban Ecology 1100 Ohio Dr., SW Washington, D.C. 20242 Phone: (202)342-1443	90	09/90	1,000 0
NCR	NACC	Micromorphologic analysis of soil thin sections obtained from compacted soils.	Patterson, Mr. J. C. NPS - National Capital Region Center for Urban Ecology 1100 Ohio Dr., SW Washington, D.C. 20242 Phone: (202)342-1443	10	06/92	62,500 0
NCR	NACC	1. Zoysia/Tall Fescue sod adaptation on the National Mall. 2. Soil modification of zoysia/tall fescue plots to enhance turfgrass root growth and penetration.	Patterson, Mr. J. C. National Park Service Center for Urban Ecology 1100 Ohio Dr., SW Washington, D.C. 20242 Phone: (202)342-1443	20	09/92	1,000 0
NCR	NACC	Study of soil atmosphere in natural and highly man-influenced soils in Washington, D.C.	Short, Mr. J. R. National Park Service Center for Urban Ecology 1100 Ohio Drive, S.W. Washington, D.C. 20242 Phone: (202)342-1443	20	09/91	58,750 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NCR	NACC	Characterization and taxonomy of highly man-influenced soils of the National Mall and the Washington Monument Grounds.	Short, Mr. J. R. National Park Service Center for Urban Ecology 1100 Ohio Drive, S.W. Washington, D.C. 20242 Phone: (202)342-1443	40	09/91	58,750 0
NCR	NACC	Screening and Identification of American Cell Lines for Resistance to Dutch Elm Disease	Sticklen, Dr. M. B. Michigan State University Pesticide Research Center East Lansing, MI 48824 Phone: (517)353-9140	10	08/92	24,635 0
NCR	NACE	Kenilworth Marsh Water Quality Monitoring Project	Hammerschlag, Dr. R. S. National Park Service 1100 Ohio Drive, CUE Washington, D.C. 20242 Phone: (202)342-1443	50	12/99	5,000 0
NCR	PRWI	Lepidoptera Survey	Lipford, Mr. M. L. Virginia Natural Heritage Program 230 Governor Street Suite 402 Richmond, VA 23219 Phone: (804)786-7951	100	09/89	2,500 0
NCR	PRWI	Herpetological Survey	Lipford, Mr. M. L. Virginia Natural Heritage Program 230 Governor Street Suite 402 Richmond, VA 23219 Phone: (804)786-7951	100	07/89	2,500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NCR	PRWI	Exotic Plant Ecology and Management	Thomas, Jr., Mr. L. K. National Park Service Center for Urban Ecology 1100 Ohio Dr., S.W. Washington, D.C. 20242 Phone: (202)342-1443	50	12/99	0 0
NCR	PRWI	Wildlife Study: Prince William Forest Park	Tice, Mr. D. A. North American Resource Management P.O. Box 6777 Charlottesville, VA 22906 Phone: (804)293-8733	100	12/89	13,900 0
NCR	PRWI	Comparative Soil Moisture Studies in Populations of Isotria Medeoloides and I. Verticillata in Virginia	Ware, Ms. D. M. The College of William and Mary Herbarium Department of Biology Williamsburg, VA 23185 Phone: (804)253-4240	100	03/88	890 0
NCR	PRWI	Comparative Studies of the Population Ecology of Isotria medeoloides and I. verticillata in Prince William Forest Park	Ware, Ms. D. M. The College of William and Mary Herbarium Department of Biology Williamsburg, VA 23185 Phone: (804)253-4240	100	03/89	2,380 0
NCR	ROCR	Plant Inventory	Fleming, Ms. M. M. National Park Service Rock Creek Park 5000 Glover Rd., N.W. Washington, D.C. 20015 Phone: (202)426-6834	80	12/91	20,000 10,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NCR	ROCR	Breeding Bird Census	Ford, Mr. R. B. National Park Service Rock Creek Park 5000 Glover Rd., N.W. Washington, D.C. 20015 Phone: (202)426-6834	60	07/99	0 0
NCR	ROCR	Raccoon Ecology Study	Hadidian, Dr. J. National Park Service Center for Urban Ecology National Capital Region Washington, D.C. 20242 Phone: (202)342-1443	60	12/91	0 20,000
NCR	ROCR	Protozoan and Helminth Parasities Transmissible to Humans in an Urban Raccoon Population	Hadidian, Dr. J. National Park Service 1100 Ohio Drive, S.W. Washington, D.C. 20242 Phone: (202)342-1443	70	09/90	1,500 2,000
NCR	ROCR	Population Estimates Using Mark-Recapture Techniques in an Urban Raccoon Population.	Hadidian, Dr. J. National Park Service 1100 Ohio Drive, S.W. Washington, D.C. 20242 Phone: (202)342-1443	80	05/90	3,500 0
NCR	ROCR	Raccoon Ecology, Population Dynamics and Rabies Epizootiology: Juvenile Mortality and Familial Associations in an Urban Raccoon Population.	Hadidian, Dr. J. National Park Service National Capital Region 1100 Ohio Drive, S.W. Washington, D.C. 20242 Phone: (202)342-1443	50	06/90	30,000 20,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
NCR	ROCR	Rock Creek Fish Study	Mudre, Dr. J. International Science & Technology 100 Carpenter Dr., Suite 206 Sterling, VA 22170 Phone: (703)471-4261	50	10/91	85,000 0
NCR	ROCR	Lichen Flora of Washington DC and Vicinity	Pittam, Ms. S. K. Smithsonian Institution National Museum of Natural History Botany/NHB 166 Washington, D.C. 20560 Phone: (202)357-2545	40	10/91	0 0
NCR	ROCR	Japanese Knotweed Control	Seiger, Ms. L. George Washington University Dept. of Biological Sciences Washington, D.C. 20052 Phone: (202)994-7119	75	12/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CIRO	Cultural Resources Inventory	Chance, Mr. D. 502 East C Street Moscow, ID 83843 Phone: (208)883-1080	90	12/89	17,600 0
PNR	CIRO	Behavior, Ecology, and Conservation of Mountain Lions in Fragmented Habitat.	Laundre', Mr. J. W. Idaho State University Dept. of Biological Sciences Pocatello, ID 83209 Phone: (208)236-3765	30	12/95	0 30,000
PNR	CRLA	Red Fir and Fire Dynamics	Agee, Mr. J. K. Univeristy of Washington College of Forest Resources Seattle, WA 98195 Phone: (206)543-2688	20	07/91	3,000 0
PNR	CRLA	A Qualitative Investigation of the Benthic Macroinvertebrate Fauna	Anderson, Mr. N. H. Oregon State University Department of Entomology Corvallis, OR 97331 Phone: (503)737-4597	75	06/90	9,500 0
PNR	CRLA	Volcanic Evolution	Bacon, Mr. C. R. U.S. Geological Survey Mail Stop 910 345 Middlefield Road Menlo Park, CA 94025 Phone: (415)329-5246	70	00/99	0 120

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CRLA	Fish Survey of Selected Streams	Buktenica, Mr. M. National Park Service Crater Lake National Park P.O. Box 7 Crater Lake, OR 97604 Phone: (503)594-2211	25	03/91	0 0
PNR	CRLA	Ecology of Kokanee Salmon and Rainbow Trout	Buktenica, Mr. M. National Park Service Crater Lake National Park P.O. Box 7 Crater Lake, OR 97604 Phone: (503)594-2211	0	00/99	1,000 0
PNR	CRLA	Hydrothermal Processes	Collier, Mr. R. W. Oregon State University College of Oceanography Corvallis, OR 97331 Phone: (503)737-2895	75	06/91	309,000 44,000
PNR	CRLA	Visibility Monitoring	Core, Mr. J. Dept. of Evironmental Quality 811 SW Sixth Ave Portland, OR 97204 Phone: (503)229-5380	0	00/99	0 1,000
PNR	CRLA	Particle Fluxes and Their Relationship to Nutrient Cycling	Dymond, Mr. J. Oregon State University College of Oceanography Corvallis, OR 97331 Phone: (503)737-2296	70	09/92	0 10,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CRLA	Quantification of Federal reserved water rights	Haas, Dr. G. E. Colorado State University Rec. Res. & Landscape Architecture 233 Forestry Bldg. Ft. Collins, CO 80523 Phone: (303)491-5126	20	01/91	11,000 0
PNR	CRLA	Hydrologic Benchmark Station	Kraus, Mr. R. United States Geological Survey 1019 N Riverside Medford, OR 97501 Phone: (503)776-4256	0	00/99	0 10,980
PNR	CRLA	Crater Lake Ecosystem Study	Larson, Mr. G. L. Oregon State University National Park Service, CPSU School of Forestry Corvallis, OR 97331 Phone: (503)737-2043	70	09/92	150,000 0
PNR	CRLA	Quantification of Federal Reserved Water Rights	Larson, Dr. G. NPS-Coop. Park Studies Unit Oregon State University College of Foresty Corvallis, OR 97331 Phone: (503)737-1498	0	10/91	7,000 0
PNR	CRLA	Visibility Monitoring and Data Analysis	Malm, Mr. W. C. Colorado State University Visibility Monitoring and Data Anal Fort Collins, CO 80523 Phone: (303)491-8292	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CRLA	Historic American Building Survey (HABS) Documentation	Mark, Mr. S. R. National Park Service Crater Lake National Park P.O. Box 7 Crater Lake, OR 97604 Phone: (503)594-2211	100	12/89	4,500 0
PNR	CRLA	Planning and Development at Rim Village 1902 - 1989	Mark, Mr. S. R. National Park Service Crater Lake National Park P.O. Box 7 Crater Lake, OR 97604 Phone: (503)594-2211	100	12/89	3,500 0
PNR	CRLA	Physical History Chronology of Crater Lake Lodge	Mark, Mr. S. R. National Park Service Crater Lake National Park P.O. Box 7 Crater Lake, OR 97604 Phone: (503)594-2211	50	02/90	2,000 0
PNR	CRLA	Preliminary Habitat Use Assessment of the White-Headed Woodpecker	Matthews, Ms. P. Oregon Dept. Fish and Wildlife 61374 Parrell Road Bend, OR 97702 Phone: (503)388-6363	30	06/91	0 20,000
PNR	CRLA	Phytoplankton Taxonomy and Ecology	McIntire, Mr. C. D. Oregon State University Dept. of Botany & Plant Pathology Corvallis, OR 97331 Phone: (503)737-2490	63	02/92	15,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CRLA	Dutton Ridge Air Quality Camera Station	Milestone, Mr. J. F. National Park Service Crater Lake National Park P.O. Box 146 Crater Lake, OR 97604 Phone: (503)594-2211	20	10/97	200 0
PNR	CRLA	Archeological Survey of Rim Village and Related Areas	Minor, Mr. R. Heritage Research Associates, Inc. 1997 Garden Ave Eugene, OR 97403 Phone: (503)485-0454	90	02/90	10,000 0
PNR	CRLA	Peregrine Falcon Nesting Enhancement	Opp, Mr. R. Oregon Dept. of Fish & Wildlife 1400 Miller Island Road Klamath Falls, OR 97603 Phone: (503)883-5732	100	10/89	800 1,700
PNR	CRLA	Quantification of Federal reserved water rights	Pettee, Mr. C. W. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8321	40	10/91	18,000 0
PNR	CRLA	Deep Benthic Flora	Phinney, Mr. H. K. Oregon State University Dept. of Botany and Plant Pathology Corvallis, OR 97331 Phone: (503)737-2174	30	08/91	0 22,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CRLA	Rare and Endemic Plant Survey	Smith, Ms. M. National Park Service Crater Lake National Park P.O. Box 7 Crater Lake, OR 97604 Phone: (503)594-2211	100	10/89	500 0
PNR	CRLA	Geothermal Resources	Thompson, Mr. J. M. U.S. Geological Survey 345 Middlefield Road Menlo Park, CA 94025 Phone: (415)329-5247	90	00/99	0 5,000
PNR	CRLA	Archeological Overview and Research Design	Winthrop, Mr. R. Winthrop and Associates Ashland, OR 97520 Phone: (206)442-0791	50	08/90	28,000 0
PNR	CRLA	Mechanics of the Eruption of Mount Mazama	Young, Mr. S. R. Lancaster University Volcanology Research Group Division of Environmental Science Lancaster, U.K. LA1 LYQ Phone:	75	10/90	0 0
PNR	CRLA	Geology - Climate - Soil	Young, Mr. S. R. Lancaster University Volcanology Research Group Division of Environmental Science Lancaster, U.K. LA1 4YQ Phone:	75	10/90	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CRMO	Environmental Monitoring	Graham, Mr. B. W. Idaho State University College of Pharmacy Pocatello, ID 83204 Phone: (208)236-3475	0	12/99	0 150
PNR	CRMO	Ecology of the Blind Cave Beetle	Johnson, Mr. P. J. University of Wisconsin Department of Entomology Madison, WI 53706 Phone: (608)262-2078	30	12/90	0 0
PNR	CRMO	Geological History	Kuntz, Mr. M. A. U.S. Geological Survey MS913, Box 25046 Denver Federal Center Denver, CO 80225 Phone: (303)236-1293	100	12/89	0 100,000
PNR	CRMO	Pollination Ecology of Mimulus Nanus	Luce, Ms. S. Idaho State University Department of Biological Sciences Campus Box 8007 Pocatello, ID 83209-0009 Phone: (208)236-3765	90	12/90	0 15
PNR	CRMO	Mineral Trace Elements	Moye, Mr. F. J. Idaho State University Department of Geology Pocatello, ID 83209 Phone: (208)236-3365	100	12/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	CRMO	Baseline Resource Inventory - Lichens	Pearson, Mr. L. C. Ricks College Department of Sciences Rexberg, ID 83440 Phone: (208)356-2011	100	01/90	3,000 0
PNR	CRMO	Baseline Resource Inventory - Fire Ecology	Wright, Mr. R. G. NPS-Coop. Park Studies Unit University of Idaho College of Forestry Moscow, ID 83843 Phone: (208)885-7990	90	03/90	25,000 0
PNR	CRMO	An Analysis of Long-term Vegetation Changes	Wright, Mr. R. G. NPS-Coop. Park Studies Unit University of Idaho College of Forestry Moscow, ID 83843 Phone: (208)885-7990	80	12/90	1,000 0
PNR	FOCL	Survey of Cultural Resources	Thomas, Mr. B. Eastern Washington University Archaeological & Historical Service 313 Monroe Hall, MS-168 Cheney, WA 99004 Phone: (509)359-2289	100	03/89	3,000 0
PNR	HAFO	Late Cenozoic Mammalian Biochronology	Repenning, Mr. C. A. U.S. Geological Survey, MS 919 Federal Center, Box 25046 Denver, CO 80225 Phone: (303)236-9824	70	00/99	0 100,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	HAFO	Botanical Identification	Weasma, Mr. T. R. P.O. Box 5621 Boise, ID 83705-0621 Phone:	80	11/91	0 2,000
PNR	JODA	Paleontological Monitoring	Fremd, Mr. T. J. National Park Service John Day Fossil Beds Nat'l Monument 420 W. Main Street John Day, OR 97845 Phone: (503)575-0721	0	00/99	0 0
PNR	JODA	Taphonomy and Paleoecology of the Turtle Cove Member of the John Day Formation	Fremd, Mr. T. J. National Park Service John Day Fossil Beds Nat'l Monument 420 West Main Street John Day, OR 97845 Phone: (503)575-0721	40	05/91	0 0
PNR	JODA	The Effects of Fire on Biological Diversity, Site Productivity, and Ecosystems Processes	Kauffman, Mr. J. B. Oregon State University Department of Rangeland Resources Corvallis, OR 97331 Phone: (503)737-3341	35	12/93	23,000 15,000
PNR	MORA	Subalpine Fire Dynamics	Agee, Mr. J. K. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2688	95	04/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MORA	Long-term Monitoring of Avian Populations and Environmental Conditions	Aubry, Mr. K. B. Forest Sciences Laboratory 3625 93rd Avenue Southwest Olympia, WA 98502 Phone: (206)753-9494	90	04/90	0 39,000
PNR	MORA	Assessment of Soil and Plant Development on the Kautz Creek Mudflow	Gessel, Mr. S. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)545-1931	1	06/92	0 500
PNR	MORA	Liverworts	Hong, Mr. W. S. University of Great Falls 1301 20th Street South Great Falls, MT 59405 Phone:	80	08/92	0 0
PNR	MORA	Transportation Survey	Johnson, Mr. D. NPS-Coop. Park Studies Unit University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)545-7404	85	03/90	10,000 0
PNR	MORA	A Study of Visitor Non-Compliance With Minimum Impact Behavioral Expectation in Paradise Meadows	Johnson, Mr. D. NPS-Coop. Park Studies Unit University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)545-7404	100	03/89	5,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MORA	Mammals and Their Ecosystems	Johnson, Mr. M. L. University of Washington, DB-10 Burke Memorial Museum Seattle, WA 98195 Phone: (206)627-5697	10	00/99	0 2,000
PNR	MORA	Water Resources	Larson, Mr. G. L. NPS-Coop. Park Studies Unit Oregon State University School of Forestry Corvallis, OR 97331 Phone: (503)737-2043	75	12/91	15,000 0
PNR	MORA	Analysis of Genetic Inter-Relationships of Pedicularis Species	Macior, Mr. L. The University of Akron Biology Department Akron, OH 44325-3908 Phone:	50	00/99	0 0
PNR	MORA	Investigation of Ocurrence of Spotted Frogs	McAllister, Mr. K. Washington Department of Wildlife 600 North Capitol Way Olympia, WA 98504-0091 Phone:	33	10/90	0 3,000
PNR	MORA	Volcanic History of the Tatoosh Igneous Complex	Murphy, Mr. M. Battelle Pac.N.W. Laboratories Geophysics Sect. Geosciences Dept P.O. Box 999 Richland, WA 99352 Phone:	100	12/89	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MORA	Butterflies	Pyle, Mr. R. M. 369 Loop Road Grays River, WA 98621 Phone:	100	08/89	0 0
PNR	MORA	Seismic Monitoring	Qamar, Mr. A. University of Washington Geophysics Program, AK-50 Seattle, WA 98195 Phone: (206)545-7563	0	00/99	0 7,000
PNR	MORA	Arthropods and Small Mammals Associated With Montane Rivers	Rector, Mr. M. University of Washington College of Forest Resources, AR-10 Wildlife Group Seattle, WA 98195 Phone: (206)543-7232	70	06/90	0 0
PNR	MORA	Rare Plant Survey	Rochefort, Ms. R. M. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	0	00/99	0 0
PNR	MORA	Exotic Plant Distribution	Rochefort, Ms. R. M. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	75	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MORA	Alpine Impact Survey	Rochefort, Ms. R. M. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	0	00/99	22,000 0
PNR	MORA	Muir Corridor Vegetation Study	Rochefort, Ms. R. M. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	60	06/91	2,000 0
PNR	MORA	Paradise Meadow Plan	Rochefort, Ms. R. M. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	0	00/99	14,000 0
PNR	MORA	Tree Establishment in Sub-alpine Meadows	Rochefort, Ms. R. M. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	50	00/99	0 0
PNR	MORA	Inventory and Long-term Monitoring Wilderness Crosscountry Zones	Samora, Ms. B. A. National Park Service Mount Rainier National Park Longmire, WA 98397 Phone: (206)569-2211	75	12/90	1,500 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MORA	Lake Surveys	Samora, Ms. B. A. National Park Service Mount Rainier National Park Longmire, WA 98397 Phone: (206)569-2211	0	00/99	5,100 0
PNR	MORA	Inventory of Streams and Development of a Long-term Monitoring Program	Samora, Ms. B. A. National Park Service Mount Rainier National Park Longmire, WA 98397 Phone: (206)569-2211	75	11/89	1,200 0
PNR	MORA	Elk Monitoring	Schlegel, Mr. S. E. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	0	00/99	0 1,000
PNR	MORA	Spotted Owl Survey	Schlegel, Mr. S. E. National Park Service Mount Rainier National Park Tahoma Woods, Star Route Ashford, WA 98304 Phone: (206)569-2211	0	00/99	3,500 0
PNR	MORA	Plant Response to Elk Grazing in Subalpine Meadows	Sharrow, Mr. S. H. Oregon State University Department of Rangeland Resources Corvallis, OR 97331 Phone: (503)737-3341	100	06/89	5,700 4,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MORA	Field Survey for the Occurrence of Obscure Indian Paintbrush	Sheehan, Mr. M. Washington Natural Heritage Program Div. of Land & Water Conservation Mail Stop EX-13 Olympia, WA 98504 Phone: (206)753-2448	50	03/90	0 6,375
PNR	MORA	Herpetofauna	Snyder, Mr. R. University of Washington Department of Zoology, NJ-15 Seattle, WA 98195 Phone:	0	00/99	0 1,000
PNR	MORA	Influence of Adjacent Land-use Practices on Elk of Pacific Northwest National Parks	Starkey, Mr. E. NPS-Coop. Park Studies Unit Oregon State University Department of Resource Recreation Corvallis, OR 97331 Phone: (503)737-2056	95	03/90	0 0
PNR	MORA	Genetic Variation in Natural Populations of Black Cottonwood	Stettler, Mr. R. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2723	85	06/90	0 12,000
PNR	MORA	Forest Development and its Pollen Record Following Fires	Sugita, Mr. S. University of Washington Quaternary Research Center, AK-60 Seattle, WA 98195 Phone: (206)542-4571	95	06/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MORA	Investigation of the Genus Isoetes	Taylor, Mr. W. C. Milwaukee Public Museum 800 West Wells Street Milwaukee, WI 53233 Phone: (414)278-2760	50	07/90	0 500
PNR	MORA	Outburst Floods	Walder, Mr. J. U.S. Geological Survey, W.R.D. Cascades Volcano Observatory 5400 MacArthur Blvd. Vancouver, WA 98661 Phone:	20	09/92	0 40,000
PNR	MORA	International Paleoclimate Program, Pliocene Climate Study	Wolfe, Mr. J. A. U.S. Geological Survey Box 25046, MS 919 Denver Federal Center Denver, CO 80225-0046 Phone:	0	09/94	0 19,000
PNR	MORA	Development of a Computerized Resource Database	Wright, Mr. G. NPS-Coop. Park Studies Unit University of Idaho College of Forestry Moscow, ID 83843 Phone: (208)885-7990	100	09/89	20,000 0
PNR	MULT	The Pacific Northwest Outdoor Recreation Study: Three-State Recreation Consumption Survey Project	Brown, Mr. P. J. Oregon State University Department of Forest Resources Corvallis, OR 97331 Phone: (503)737-2056	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	MULT	Fire Effects on Red Heather	Potash, Ms. L. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2688	100	04/89	10,000 0
PNR	NEPE	Grasses and Forbs at the Whitebird Battleground.	Northam, Mr. F. E. University of Idaho Dept. of Plant, Soil & Ento. Sci. Moscow, ID 83843 Phone: (208)885-7831	50	11/92	0 5,000
PNR	NEPE	Revegetation Experiments on the Spalding Site	Wright, Mr. R. G. NPS-Coop. Park Studies Unit University of Idaho College of Forestry Moscow, ID 83843 Phone: (206)885-7990	20	00/99	2,000 0
PNR	NOCA	Subalpine Fire Dynamics	Agee, Mr. J. K. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2688	95	04/90	5,000 0
PNR	NOCA	Grizzly Bear Investigations	Almack, Mr. J. Washington Department of Wildlife 2105 Highway 20 Sedro-Woolley, WA 98284 Phone: (206)856-5700	80	12/91	0 74,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	NOCA	Mushrooms and Related Ectomycorrhizal Fungi	Ammirati, Mr. J. F. University of Washington Department of Biology KB-15 Seattle, WA 98196 Phone: (206)543-1942	0	00/99	0 500
PNR	NOCA	Raptor Studies	Bjorklund, Mr. J. E. National Park Service North Cascades National Park 2105 Highway 20 Sedro-Woolley, WA 98284 Phone: (206)856-5700	0	00/99	25,000 0
PNR	NOCA	Status of Gray Wolves in the North Cascades	Bjorklund, Mr. J. E. National Park Service North Cascades National Park 2105 Highway 20 Sedro-Woolley, WA 98284 Phone: (206)856-5700	0	00/99	1,000 1,000
PNR	NOCA	Orogenic Mechanisms in the Crystalline Core of the North Cascades	Brown, Mr. E. H. Western Washington University Department of Geology Bellingham, WA 98225 Phone: (206)676-3645	0	06/91	0 50,000
PNR	NOCA	Effects of Stocking Fish Into High-Mountain Lakes: Human Use Assessment	Brown, Mr. P. J. Oregon State University Department of Forest Resources Corvallis, OR 97331 Phone: (503)737-2056	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	NOCA	Coupling Paleoclimate and Paleofire at Desolation Peak	Heyerdahl, Ms. E. K. U.S. Forest Service PNW Research Station 4043 Roosevelt Way NE Seattle, WA 98105 Phone: (206)442-7815	35	12/90	0 34,700
PNR	NOCA	Assessment of Impacts Resulting from Human Recreational Use of High Lake Environments	Hospodarsky, Mr. D. Oregon State University College of Forestry Corvallis, OR 97331 Phone: (503)737-1497	35	10/91	26,000 7,020
PNR	NOCA	Gypsy Moth Trapping	Koro, Ms. B. B.C. Ministry of Forests Chilliwack Forest District 9850 S. McGrath Rd., P.O. Box 159 Rosedale, B.C.Canada VOX 1X0 Phone: (604)794-3361	100	10/89	0 200
PNR	NOCA	Bird Population Studies: Breeding Bird Survey; Breeding Bird Atlas; Christmas Bird Count	Kuntz II, Mr. R. C. National Park Service North Cascades National Park 2105 Highway 20 Sedro-Woolley, WA 98284 Phone: (206)856-5700	0	00/99	750 400
PNR	NOCA	Effects of Stocked Fish on High Mountain Lake Communities	Liss, Mr. W. J. Oregon State University Dept. of Fisheries and Wildlife Corvallis, OR 97331 Phone: (503)737-4531	33	03/91	245,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	NOCA	Effects of Stocking Fish Into High-Mountain Lakes In North Cascades National Park Service Complex	Liss, Mr. W. J. Oregon State University Dept. of Fisheries and Wildlife Corvallis, OR 97331 Phone: (503)737-4153	0	00/99	0 0
PNR	NOCA	Climate Survey Using Phenological Observations	Mason, Mr. G. R. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98267 Phone: (206)873-4590	100	09/89	15 100
PNR	NOCA	Atmospheric Deposition Monitoring	Mason, Mr. G. R. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98267 Phone: (206)873-4590	100	12/31	1,800 0
PNR	NOCA	Skagit River Bald Eagle Perch Tree Habitat Assessment	Mason, Mr. G. R. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98267 Phone: (206)873-4590	85	05/90	250 0
PNR	NOCA	Annual Midwinter Bald Eagle Survey	Mason, Mr. G. R. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98267 Phone: (206)873-4590	100	01/89	100 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	NOCA	Visitor Center Archeological Project	Mierendorf, Mr. R. R. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98267 Phone: (206)873-4590	90	12/91	20,000 0
PNR	NOCA	Desolation Chert Quarry Archeological Project	Mierendorf, Mr. R. R. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98267 Phone: (206)873-4590	95	06/90	0 7,200
PNR	NOCA	Ross Lake Archeological Project	Mierendorf, Mr. R. R. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98276 Phone: (206)873-4590	20	12/93	0 100,000
PNR	NOCA	Vascular Plants	Naas, Ms. D. VIP,(North Cascades National Park) 1078 East Pioneer Way, No. 4 Oak Harbor, WA 98277 Phone: (206)675-2180	0	00/99	1,600 32,074
PNR	NOCA	Effects of Recreational Horse Grazing in Altering Subalpine Meadow Plant Composition	Oelfke, Mr. J. National Park Service North Cascades National Park P.O. Box 7 Stehekin, WA 98284 Phone: (509)682-4404	0	00/99	1,500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	NOCA	Use of Biological Control Agents for Diffuse Knapweed	Oelfke, Mr. J. National Park Service North Cascades National Park P.O. Box 7 Stehekin, WA 98852 Phone: (509)682-4404	25	00/99	120 100
PNR	NOCA	Lake Chelan Spawning Ground Surveys	Peven, Mr. C. M. Chelan Co. Public Utility District P.O. Box 1231 Wenatchee, WA 98807 Phone: (509)663-8121	100	11/89	0 8,000
PNR	NOCA	Resident Fisheries; Ross, Diablo, and Gorge Lakes	Pflug, Mr. D. Seattle City Light, E.A. Division 1015 Third Avenue Seattle, WA 98104 Phone: (206)684-3692	100	10/89	0 110,000
PNR	NOCA	Skagit River Gorge Bypass Reach Fishery Investigations	Pflug, Mr. D. Seattle City Light, E.A. Division 1015 Third Avenue Seattle, WA 98104 Phone: (206)684-3692	100	10/89	0 68,000
PNR	NOCA	Fire Effects On Red Heather	Potash, Ms. L. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2688	100	04/89	10,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	NOCA	Seattle City Light's Skagit River Hydroelectric Project Erosion Control Plan	Riedel, Mr. J. L. National Park Service North Cascades NP, Skagit District 728 Ranger Station Road Marblemount, WA 98267 Phone: (206)873-4500	75	02/90	0 35,000
PNR	NOCA	Elemental evaluation of firs, lichens and soils in NOCA as indicators of air pollution.	Stolte, Mr. K. W. NPS-Air Quality Division P.O. Box 25287 Lakewood, CO 80225 Phone: (303)969-2073	75	10/91	24,000 0
PNR	NOCA	Mt. Baker Quadrangle	Tabor, Mr. R. W. U.S. Geological Survey 345 Middlefield Road Menlo Park, CA 94025 Phone: (415)329-4912	40	12/92	0 76,000
PNR	NOCA	Rare Plants In The Skagit Hydroelectric Project Area	Vanbianchi, Mr. R. Dames & Moore 2025 1st Avenue Seattle, WA 98121 Phone: (206)728-0744	100	09/89	0 28,000
PNR	NOCA	Precipitation Monitoring at Seven Sites	Wasem, Mr. C. R. National Park Service North Cascades National Park 2105 Highway 20 Sedro-Woolley, WA 98284 Phone: (206)856-5700	80	00/99	3,200 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	NOCA	High Mountain Lake Ecology	Wasem, Mr. C. R. National Park Service North Cascades National Park 2105 Highway 20 Sedro-Woolley, WA 98284 Phone: (206)856-5700	90	12/90	2,800 0
PNR	NOCA	Physical, Chemical and Bacteriological Water Quality	Wasem, Mr. C. R. National Park Service North Cascades National Park 2105 Highway 20 Sedro-Woolley, WA 98284 Phone: (206)856-5700	90	00/99	5,200 0
PNR	NOCA	Petrogenesis of the Skagit Gneiss Migmatites, North Cascades, Washington	Whitney, Ms. D. L. University of Washington Dept. of Geological Sciences, AJ-20 Seattle, WA 98195 Phone: (206)543-1996	80	12/90	0 700
PNR	NOCA	Development of a Geographic Information System for the Lower Stehekin River Drainage	Wright, Mr. G. NPS-Coop. Park Studies Unit University of Idaho College of Forestry Moscow, ID 83843 Phone: (208)885-7990	15	03/91	32,000 0
PNR	OLYM	Salmon Outmigration, Elwha River	Hosey & Associates Engineering Co. Northup West Office Park, Suite 190 2820 Northup Way, C-96900 Bellevue, WA 98004 Phone: (206)827-8661	0	03/90	0 16,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Boulder Removal, Elwha River		0	11/90	0
			Hosey & Associates Engineering Co. Northup West Office Park, Suite 190 2820 Northup Way, C-96900 Bellevue, WA 98004 Phone: (206)827-8661			7,000
PNR	OLYM	Elwha River Smolt Emigration		0	00/99	0
			Hosey & Associates Engineering Co. Northup West Office Park, Suite 190 2820 Northup Way, C-96900 Bellevue, WA 98004 Phone: (206)827-8661			6,000
PNR	OLYM	Water Quality, Elwha Dams Project		0	00/99	0
			Hosey & Associates Engineering Co. Northup West Office Park, Suite 190 2820 Northup Way, C-96900 Bellevue, WA 98004 Phone: (206)827-8661			8,000
PNR	OLYM	Elwha Dam Removal		0	02/90	0
			Hosey & Associates Engineering Co. Northup West Office Park, Suite 190 2820 Northup Way, C-96900 Bellevue, WA 98004 Phone: (206)827-8661			60,000
PNR	OLYM	Bald Eagle Survey		0	05/90	0
			Hosey & Associates Engineering Co. Northup West Office Park, Suite 190 2820 Northup Way, C-96900 Bellevue, WA 98004 Phone: (206)827-8661			0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Fire Effects on Red Heather	Agee, Mr. J. K. University of Washington College of Forest Resources, AR-10 Division of Resources Management Seattle, WA 98195 Phone: (206)543-2688	100	04/89	10,000 0
PNR	OLYM	Silicoflagellates in Near-Shore Surface Waters of Washington	Armato, Mr. P. J. Western Washington University Department of Ecology Bellingham, Washington 98225 Bellingham, WA 98225 Phone: (206)676-5926	25	12/90	0 4,070
PNR	OLYM	Vegetational History of the Pleistocene in the Kalaloch Area	Benham, Mr. S. R. Pacific Lutheran University Department of Earth Sciences Tacoma, WA 98447 Phone: ( ) -	5	12/93	0 500
PNR	OLYM	Nurse Log Tree Germination: Grazing Pressure on Seedling survival	Boersma, Ms. D. University of Washington Institute for Environmental Studies Seattle, WA 98195 Phone: (206)543-1812	70	03/91	0 1,000
PNR	OLYM	Genetic and Cytogenetic Studies of Gene Transfer in Solanum	Brown, Mr. C. R. UDA/ARS/ Research Geneticists Route 2, Box 2953A Prosser, WA 99350 Phone: (000)000-0000	90	01/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Peregrine Falcon Monitoring and Evaluation of Potential Nest Cliffs	Buchanan, Mr. J. B. Cascadia Research Collective 218 1/2 W. 4th Avenue Olympia, WA 98501 Phone: (206)943-7325	100	07/89	0 5,000
PNR	OLYM	Survey of Intertidal Communities	Dethier, Mr. M. N. University of Washington Friday Harbor Laboratory Friday Harbor, WA 98250 Phone: (206)378-2165	60	11/90	3,000 55,000
PNR	OLYM	Timing and Exit Selection of Juvenile Chinook Salmon at Glines Canyon Dam	Dilley, Mr. S. U.S. Fish and Wildlife Service Fisheries Assistance Office 2625 Parkmont Lane, Building A Olympia, WA 98502 Phone: (206)753-9460	50	07/90	0 0
PNR	OLYM	NADP/NTN Atmospheric Deposition Monitoring Program	Gibson, Mr. J. H. Colorado State University Natural Resource Ecology Laboratory Fort Collins, CO 80523 Phone: (303)491-1978	0	00/99	4,000 0
PNR	OLYM	Ecological Spatial Potential in the Port Angeles - Hurricane Ridge Area	Glawion, Mr. R. M. Ruhr-Universitat Bochum Geographisches Institut Postfach 10 21 48 4630 Bochum, Germany Phone: (234)700-3381	90	06/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Reproductive Biology of Red Crossbills	Hahn, Mr. T. P. University of Washington Department of Zoology, NJ-15 Seattle, WA 98195 Phone: (206)543-7623	80	06/91	0 1,400
PNR	OLYM	Ambient Fisheries Habitat Monitoring	Hatten, Mr. J. Hoh Tribe/Center for Streamside Std HC 80, BOX 917 Forks, WA 98331 Phone: (206)543-3507	50	12/99	0 1,500
PNR	OLYM	Root Frost Hardiness of Four Subalpine Conifers	Hinckley, Mr. T. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-1588	95	12/89	0 20,000
PNR	OLYM	Pilot Study of Radio-tagging Queets River Spring-summer Chinook Salmon	Hiss, Mr. J. U.S. Fish and Wildlife Service Fisheries Assistance Office 2625 Parkmont Lane #A Olympia, WA 98502 Phone: (206)753-9460	100	10/89	7,000 14,000
PNR	OLYM	Elk Herbivory	Houston, Mr. D. B. National Park Service Olympic National Park 600 East Park Avenue Port Angeles, WA 98362 Phone: (206)452-4501	90	12/90	20,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Ecology and Management of Mountain Goats	Houston, Mr. D. B. National Park Service Olympic National Park 600 East Park Avenue Port Angeles, WA 98362 Phone: (206)452-4501	90	06/92	15,000 0
PNR	OLYM	Taft Creek Ground Water Study, Hoh River Valley	Inglis, Mr. R. NPS - Water Resource Division Federal Building, Room 343 301 S. Howes Street Fort Collins, CO 80521 Phone: (303)221-8331	0	00/99	0 0
PNR	OLYM	Annual Assessment of Sea Otters	Jeffries, Mr. S. Washington Department of Wildlife Marine Mammal Investigations 7801 Phillips Rd. SW Tacoma, WA 98498 Phone: (206)964-7278	60	07/95	0 8,000
PNR	OLYM	Lake and Reservoir Water Quality Assessment	Johnson, Mr. A. Washington Department of Ecology 7171 Cleanwater Lane, LH-14 Olympia, Washington 98504 Olympia, WA 98504 Phone: (206)586-6828	60	02/90	0 5,200
PNR	OLYM	Evaluation and Monitoring of Small Mammal Populations and Habitat Relationships.	Johnson, Mr. M. L. University of Washington Burke Memorial Museum, DB-10 Seattle, WA 98195 Phone: (206)545-7417	0	00/99	0 8,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Reference Collection of Common Mosses, Lichens and Liverworts	Kaltenthuler, Mr. B. HC-80, Box 650 Forks, WA 98331 Phone: (206)374-6925	0	10/89	0 0
PNR	OLYM	Seed Dormancy in High-elevation Plants of the Olympic Mountains	Kaye, Mr. T. N. Oregon State University Dept. of Botany and Plant Pathology Corvallis, OR 97331 Phone: (503)737-4351	99	02/90	0 300
PNR	OLYM	Autecology, Reproductive Ecology, and Demography of Astragalus	Kaye, Mr. T. N. Oregon State University Dept. of Botany and Plant Pathology Corvallis, OR 97331 Phone: (503)737-4351	100	12/89	6,000 0
PNR	OLYM	Wetland and Rare Plant Inventory	Kunze, Ms. L. Washington Natural Heritage Program Div. of Land & Water Conservation Dept. of Nat. Resources, M/S EX-13 Olympia, WA 98504 Phone: (206)753-2449	75	07/90	0 3,080
PNR	OLYM	High Mountain Lake Survey Olympic National Park	Larson, Mr. G. Oregon State University National Park Service - CPSU School of Forestry Corvallis, OR 97331 Phone: (503)737-1498	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Water Resources	Larson, Mr. G. L. Oregon State University National Park Service - CPSU School of Forestry Corvallis, OR 97331 Phone: (503)737-2043	80	12/89	3,000 0
PNR	OLYM	Washington State Geologic Map - Northwest Quadrant	Lingley, Mr. W. S. Department of Natural Resources Div. of Geology & Earth Sciences MS:PY-12 Olympia, WA 98504 Phone: (206)753-2449	15	09/92	0 23,000
PNR	OLYM	Visibility Monitoring and Data Analysis Project	Malm, Mr. W. NPS-Air Quality Division CIRA-Foothills Campus Fort Collins, CO 80523 Phone: (303)491-8292	60	00/99	0 0
PNR	OLYM	Visibility Monitoring	Malm, Mr. W. C. NPS Air Quality Division 1901 Sharpe Point Drive, Suite E Fort Collins, CO 80525 Phone: (303)224-9300	0	00/90	7,500 0
PNR	OLYM	Spotted Owl Inventory	Moorhead, Mr. B. B. National Park Service Olympic National Park 600 East Park Avenue Port Angeles, WA 98362 Phone: (206)452-4501	25	12/92	35,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Inventory and Monitor Bald Eagles and Peregrine Falcons	Moorhead, Mr. B. B. National Park Service Olympic National Park 600 East Park Avenue Port Angeles, WA 98362 Phone: (206)452-4501	40	04/95	500 3,000
PNR	OLYM	Relations Between Geomorphology, Beaver Activities, and Salmonid Production	Naiman, Mr. R. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-6920	0	00/99	0 0
PNR	OLYM	Coupled Structural and Fluid Evolution of the Neocene Hoh Accretionary Complex	Orange, Mr. D. University of California Santa Cruz Earth Science Board Santa Cruz, CA 95064 Phone: (408)459-2574	85	06/90	0 5,000
PNR	OLYM	Biology of the Moth Genus Greya and Leafmining Lepidoptera	Pellmyr, Mr. O. Dept. of Ecology and Evolution SUNY Stony Brook, NY 11742 Phone: (516)632-8639	50	08/91	0 1,000
PNR	OLYM	Subalpine Fire Dynamics	Potash, Ms. L. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2688	95	04/89	5,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Layperson's Herbarium Specimens, Hurricane Ridge	Simmons, Mr. J. K. 1442 Kewalo Street, #207 Honolulu, HI 96822 Phone: (808)842-8264	75	09/89	250 0
PNR	OLYM	Collection of Clinocerine Diptera (Flies) from Western North America	Sinclair, Mr. B. Carleton University Department of Biology Ottawa, Ontario, Canada K1S 5B6 Phone: (613)788-3872	100	07/89	0 1,000
PNR	OLYM	Forage Quality In Old-Growth Forests	Starkey, Mr. E. E. NPS-Coop. Park Studies Unit Oregon State University School of Forestry Corvallis, OR 97331 Phone: (503)737-2056	0	00/99	0 0
PNR	OLYM	Myxomycetes	Stephenson, Mr. S. L. Fairmont State College Fairmont, WV 26554 Phone: (304)366-9224	10	10/92	0 150
PNR	OLYM	Genetic Variations in Natural Populations of Black Cottonwood	Stettler, Mr. R. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2723	85	06/90	0 12,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Cytological and Electrophoretic Study of Isoetes From Lake Crescent and Lake Ozette	Taylor, Mr. W. C. Milwaukee Public Museum Botany Section 800 West Wells Street Milwaukee, WI 53233 Phone: (414)278-2760	50	07/90	0 500
PNR	OLYM	Precipitation Chemistry and Ecosystem Function: Baseline Research for Acid Deposition Studies.	Thomas, Mr. T. B. University of Washington College of Forest Resources, AR-10 Seattle, WA 98195 Phone: (206)543-2818	60	12/90	88,000 0
PNR	OLYM	Evaluation of Effects of Outplanting Hatchery Coho Fry in Four Tributaries of the Queets River	Wampler, Mr. P. U.S. Fish and Wildlife Service Fisheries Assistance Office 2625 Parkmont Lane Building A Olympia, WA 98502 Phone: (206)753-9460	100	10/89	0 35,000
PNR	OLYM	Distribution, Age, and Geomorphic Character of Rock Glaciers in the Olympic Mountains	Welter, Mr. S. University of Colorado Department of Geography Boulder, CO 80309 Phone: (303)492-4481	100	00/99	0 0
PNR	OLYM	Pinewood Nematode Survey	Williams, Mr. D. J. Washington State Dept/Agriculture Plant Services Division 1313 W. Meeker, Suite 111 Kent, WA 98032 Phone: (206)872-6480	100	10/89	0 2,520

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	OLYM	Timing, Exit Selection, and Survival of Steelhead and Coho Smolts at Glines Dam, Elwha River	Wunderlich, Mr. R. U.S. Fish & Wildlife Service Fisheries Assistance Office 2625 Parkmont Lane, Building A Olympia, WA 98502 Phone: (206)753-9460	100	01/89	0 5,000
PNR	ORCA	Fire and Forest History at the Oregon Caves	Agee, Mr. J. K. University of Washington Division of Resources Management College of Forest Resources (AR-10) Seattle, WA 98195 Phone: (206)543-2688	80	04/90	10,000 0
PNR	ORCA	Water Quality Monitoring in Oregon Caves	Aley, Mr. T. Ozark Underground Laboratory Route 1 Box 62 Protem, MO 65733 Phone: (417)785-4289	50	00/99	3,000 0
PNR	ORCA	Historic American Building Survey	Klent, Mr. K. 4408 Huntington Way Independence, MO 64055 Phone:	75	09/90	30,000 0
PNR	ORCA	Bat Access Monitoring	Roth, Mr. J. E. National Park Service Oregon Caves National Monument 19000 Caves Highway Cave Junction, OR 97523 Phone: (503)592-2100	50	10/90	100 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	ORCA	Exotic Plant Monitoring in Oregon Caves National Monument	Roth, Mr. J. E. National Park Service Oregon Caves National Monument 19000 Caves Highway Cave Junction, OR 97523 Phone: (503)592-2100	35	10/91	100 0
PNR	ORCA	Cave Climate Monitoring at Oregon Cave	Roth, Mr. J. E. National Park Service Oregon Caves National Monument 19000 Caves Highway Cave Junction, OR 97523 Phone: (503)592-2100	20	05/91	3,000 0
PNR	ORCA	Geologic Mapping of Oregon Caves National Monument	Roth, Mr. J. E. National Park Service Oregon Caves National Monument 19000 Caves Highway Cave Junction, OR 97523 Phone: (503)592-2100	30	09/90	200 0
PNR	ORCA	Surface Pest Plant Monitoring at Oregon Caves	Roth, Mr. J. E. National Park Service Oregon Caves National Monument 19000 Caves Highway Cave Junction, OR 97523 Phone: (503)592-2100	30	06/97	200 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
PNR	ORCA	Vascular Plant Collecting	Roth, Mr. J. E. National Park Service Oregon Caves National Monument 19000 Caves Highway Cave Junction, OR 97523 Phone: (503)592-2100	30	10/91	100 0
PNR	SAJH	Structural Geology of Thrust Vaults	Cowan, Mr. D. S. University of Washington Department of Geological Science Seattle, WA 98195 Phone: (206)543-4033	40	12/91	0 750
PNR	WHMI	Revegetation	Larson, Mr. L. Eastern Oregon State College OSU Agriculture Program La Grande, OR 97850 Phone: (503)963-1547	70	11/91	4,000 9,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ARCH	Interactions between Fraxinus anomala (single leaf ash) and Tropidosteptes sp. (Hemiptera: Miridae): the effect of auto exhaust and road dust on susceptibility to attack.	Graham, Dr. T. Southeast Utah Group National Park Service 125 W. 2nd S. Moab, UT 84532 Phone:	30	12/92	1,000 0
RMR	ARCH	Effectiveness of the herbicide Garlon 3A on Tamarix ramosissima: the role of season of application in tamarisk mortality	Graham, Dr. T. Southeast Utah Group National Park Service 125 W. 2nd S. Moab, UT 84532 Phone:	60	12/90	1,000 0
RMR	ARCH	Coleogyne Ramossissima seedling establishment: the roles of substrate, proximity to mature blackbrush and number of seedlings in a clump on blackbrush seedling survival.	Graham, Dr. T. Southeast Utah Group National Park Service 125 W. 2nd S. Moab, UT 84532 Phone:	60	12/90	1,000 0
RMR	ARCH	Ecology of potholes on the Colorado Plateau: effect of acid deposition on rock pool communities in and near Arches N.P., Utah	Graham, Dr. T. Southeast Utah Group National Park Service 125 W. 2nd S. Moab, UT 84532 Phone:	40	12/91	16,000 0
RMR	ARCH	Preliminary Accessment of Bison Alcove, Arches National Park	Mead, J. I. Northern Arizona University Flagstaff, AZ	50	04/90	5,000 5,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ARCH	An investigation of the Jurassic J-2 Erosional Surface of the Western Interior of the United States- Conditions of Formation and Implications for Basin Tectonics.	Swezey, Mr. C. S. University of Texas Austin, TX	70	01/90	0 10,000
RMR	BADL	Bighorn Sheep Population Size, Dynamics, Distribution and Herd Health	Benzon, Mr. T. S.D. Dept. of Game, Fish, and Parks Wildlife Division 3305 W. South Street Rapid City, SD 57702 Phone:	80	11/90	2,000 25,000
RMR	BADL	Genetic and Reproductive Consequences of Polygyny In Isolated Populations	Berger, Dr. J. University of Nevada - Reno Dept. of Range, Wildlife, & Forest 1000 Valley Road Reno, NV 89512 Phone:	100	10/89	0 0
RMR	BADL	Fossil vertebrates from four superposed channel sandstones in Palmer Creek	Bjork, Dr. P. Museum of Geology South Dakota Sch. of Mines & Tech. 501 E. St. Joseph Street Rapid City, SD 57701-3995 Phone:	0	00/99	0 3,000
RMR	BADL	Determine differences in the Paleofauna of Geographically and temporally separated areas of the Oligocene	Davis, Mr. R. C. University of Utah Campus Utah Museum of Natural History Salt Lake City, UT 84112 Phone:	25	01/93	2,200 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	BADL	Evaluation of The Nature of Sedimentation and Fossil Entombment in Oligocene age sediments	Guensburg, Dr. T. E. Southern Illinois University Dept. of Geography & Earth Science Campus Box 1459 Edwardsville, IL 62026 Phone:	60	06/91	0 0
RMR	BADL	Locomotor Adaptations in Oligocene Herbivores	Hickerson, Mr. W. Georgia College Department of Biology Milledgeville, GA 31061 Phone: (912)453-4062	70	05/90	0 3,000
RMR	BADL	Fire Effects in wooded draws	Hull-Sieg, Ms. C. Rocky Mtn. Forest & Range Exper. St South Dakota Sch. of Mines Campus 501 E. St. Joseph Street Rapid City, SD 57701-9988 Phone: (605)394-1960	20	12/94	0 8,000
RMR	BADL	Geololgic Dating using Magnetic Stratigraphy	Prothero, Dr. D. R. Occidental College Department of Geology Los Angeles, CA 90041 Phone:	80	02/91	0 5,000
RMR	BADL	Microvertebrates in a Chadronian Channel Deposit- Quinn Draw	Shikany, Mr. M. Georgia College Department of Biology Milledgeville, GA 31061 Phone: (912)453-4062	15	00/99	0 3,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	BADL	Evolutionary Relationships and Biomechanics of Perissodactyl	Wall, Dr. W. P. Georgia College Department of Biology Milledgeville, GA 31061 Phone: (912)453-4062	30	05/92	0 3,000
RMR	BADL	Baseline Survey - Lichens	Will-Wolf, Dr. S. University of Wisconsin Department of Biology 124 Birge Hall Madison, WI 53711 Phone: (608)262-6836	25	00/99	0 1,000
RMR	BICA	Fire History in the Bighorn Canyon National Recreation Area.	Knight, Dr. D. H. University of Wyoming Laramie, WY 82071 Phone: (307)766-3291	60	08/90	14,000 2,000
RMR	BICA	Riparian Vegetation Dynamics along the Bighorn River, Wyoming (last portion of the project entitled, "Composition, abundance and distribution of vascular plants in the Bighorn Canyon NRA")	Knight, Dr. D. H. University of Wyoming Department of Botany Laramie, WY 82071 Phone:	100	12/89	0 7,000
RMR	BICA	Cardiac Telemetry, Natality and Genetics of a Recolonized Population of Bighorn Sheep	Schemnitz, Dr. S. D. New Mexico State University Las Cruces, NM	75	00/99	0 21,000
RMR	BLCA	Quantification of Federal reserved water rights	Haas, Dr. G. E. Colorado State University Rec. Res. & Landscape Architecture 233 Forestry Bldg. Ft. Collins, CO 80523 Phone: (303)491-5126	20	01/91	9,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	BLCA	Quantification of Federal reserved water rights	Pettee, Mr. C. W. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8321	40	01/91	20,000 0
RMR	BLCA	Quantification of Federal reserved water rights	Scott, Dr. M. L. U.S. Fish and Wildlife Service National Ecology Research Center 4512 McMurray Avenue Ft. Collins, CO 80525 Phone: (303)226-9475	10	01/91	18,000 0
RMR	BLCA	Quantification of Federal reserved water rights	Ward, Dr. J. V. Colorado State University Department of Biology Ft. Collins, CO 80523 Phone: (303)491-5024	20	01/91	25,000 0
RMR	BRCA	Effects of Air Pollution on Cryptogamic Crusts	Belnap, Ms. J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	BRCA	Biological Surveys on Public Lands (NPS/FWS Interagency Agreement IA-1200-9-0002)	Bogan, Mr. M. A. U.S. Fish & Wildife Service National Ecology Research Center 4512 McMurray Avenue Fort Collins, CO 80525 Phone: (303)226-9463	40	12/93	5,000 5,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	BRCA	Structural Geology of Bryce National Park	Davis, Dr. G. H. University of Arizona Room 605, Administration Building Tucson, AZ 85721 Phone:	10	08/92	0 7,000
RMR	BRCA	Stratigraphy and geologic history of Cretaceous Rocks of the Paunsaugunt Plateau	Eaton, Mr. J. G. Department of Geology Museum of Northern Arizona Flagstaff, AZ 86001 Phone:	20	09/93	0 4,000
RMR	BRCA	Tectonstratigraphy of Late Cretaceous and Paleogene nonmarine rocks of Southwest Utah	Goldstrand, Mr. P. University of Nevada Department of Geology Reno, NV 89557 Phone: (702)747-4037	75	12/90	0 2,000
RMR	BRCA	Stratigraphy, Sedimentology and Diagenesis of the Paleogene Claron Formation, Southwest Utah	Mullett, Mr. D. J. Kent State University Department of Geology Kent, OH 44242 Phone: (216)672-2041	95	05/91	0 8,000
RMR	BRCA	Historical Vegetation, fuel loads and integrated information systems for Bryce Canyon National Park.	Roberts, Mr. D. W. Utah State University College of Natural Resources Dept. of Forest Resources Logan, UT 84322-5215 Phone: (801)750-2416	85	10/90	5,000 3,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	BRCA	Plant Community Distribution and Dynamics in Byrce Canyon National Park.	Roberts, Mr. D. W. Utah State University College of Natural Resources Dept. of Forest Resources Logan, UT 84322-5215 Phone: (801)750-2416	90	03/90	0 0
RMR	BRCA	Analysis of community composition and Habitat of Pediomelum Pariense in Bryce Canyon National Park.	Roberts, Mr. D. W. Utah State University College of Natural Resources Dept. of Forest Resources Logan, UT 84322-5215 Phone: (801)750-2416	90	03/90	1,000 1,000
RMR	CANY	Effects of Air Pollution on Cryptogamic Crusts	Belnap, Ms. J. Canyonlands NP 125 West Second South Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	CANY	Composition, distribution, relative abundance and habitat requirements of endangered, threatened and rare plant species in Canyonlands Complex.	Heil, Mr. K. D. San Juan College	25	05/92	0 7,000
RMR	CANY	Distribution of larval fishes in the Colorado River.	McAda, Mr. C. U.S. Fish and Wildlife Service 529 251/2 Rd., Suite B-110 Grand Junction, CO 81505 Phone:	25	07/92	0 10,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	CARE	Capitol Reef National Park Soil Survey	Allgood, Dr. F. P. U.S. Dept. of Agriculture Soil Conservation Service P.O. Box 11350 Salt Lake City, UT 84147 Phone:	15	00/99	90,000 0
RMR	CARE	Survey of aquatic macroinvertebrates in the Fremont River in Capitol Reef National Park	Baumann, Dr. R. W. Department of Zoology Brigham Young University Provo, UT 84602 Phone: (801)378-5492	100	12/89	200 7,000
RMR	CARE	Effects of Air Pollution on Cryptogamic Crusts	Belnap, J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	CARE	Effects of Air Pollution on Cryptogamic Crusts	Belnap, J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	CARE	Biological Surveys on Public Lands	Bogan, M. A. U.S. Fish & Wildlife Service National Ecology Research Center 4512 McMurray Avenue Fort Collins, CO 80525 Phone: (303)226-9463	20	12/93	5,000 5,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	CARE	Survey of the Macroinvertebrate of the Fremont River	Caprio, J. M. Montana Agricultural Exp. Station	0	00/99	0 0
RMR	CARE	Reconstruction of the Pre-settlement Grasslands, Utah	Cole, K. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone:	90	00/99	0 0
RMR	CARE	Prehistorical Grasslands of Capitol Reef National Park	Fisher, R. F. Utah State University Logan, UT 84322-5215 Phone: (801)750-2455	75	09/90	10,000 14,404
RMR	CARE	Geometry and emplacement history of a basaltic intrusive complex San Rafael and Capitol Reef Areas, Utah	Gartner, A. E. U.S. Geological Survey MS-910 Menlo Park, CA 94025 Phone:	98	03/91	0 0
RMR	CARE	The Ecology of Small Pools in CARE, Utah	Haefner, Dr. J. W. Utah State University Logan, UT 84322 Phone:	60	00/99	0 0
RMR	CARE	Fisheries Impact Analysis of the Proposed Fremont River Hydropower project	Hardy, Dr. T. B. Dept. Civil & Envtl. Engineering Utah State University Logan, UT 84322-4110 Phone: (801)750-2989	100	12/89	0 6,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	CARE	Map Vegetation Communities of Capitol Reef National Park	Heil, K. D. San Juan College 4601 College Blvd. Farmington, NM 87401 Phone:	90	07/90	0 0
RMR	CARE	Map Vegetation Communities of Capitol Reef National Park	Heil, K. D. San Juan College 4601 College Blvd. Farmington, NM 87401 Phone:	90	07/90	0 0
RMR	CARE	Relict Plant Community Survey of Colorado Plateau	Holland, J. Glen Canyon National Recre. Area P.O. Box 1507 Page, AZ 86040 Phone:	25	00/99	0 0
RMR	CARE	Trace fossils and paleoecology of the Torrey Member of the Moenkopi Formation, southeastern Utah	Lennartz, D. University of Utah Department of Geology & Geophysics 717 Browning Building Salt Lake City, UT 84112 Phone: (000)451-5198	10	09/91	0 300
RMR	CARE	A biogeographic analysis of the grasshoppers of the Great Basin	MacMahon, Dr. J. A. Department of Biology Utah State University Logan, UT 84322-5305 Phone: (801)750-2478	95	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	CARE	A biogeographic analysis of the grasshoppers of the Great Basin	MacMahon, Dr. J. A. Utah State University Department of Biology Logan, UT 84322-5305 Phone: (801)750-2478	95	00/99	0 0
RMR	CARE	Reconstruction of Sandy Fluvial Environments	Mohrig, Mr. D. C. University of Washington Seattle, WA	10	00/99	0 0
RMR	CARE	Stratigraphic Study of Lower Triassic Marine Rocks	Paull, Dr. R. A. University of Wisconsin	70	00/99	0 0
RMR	CARE	Analysis of the Jurassic System on the Colorado Plateau	Peterson, Dr. F. U.S. Geological Survey	95	00/99	0 0
RMR	CARE	Water Resources Assessment for CARE, Utah	Rasmussen, T. C. University of Arizona College of Engineering & Mines Tucson, AZ 85721 Phone:	60	00/99	0 0
RMR	CARE	Macroinvertebrates and Chemistry of the Fremont River	Reichert, Mr. M. Bureau of Water Pollution Control	0	00/99	0 0
RMR	CARE	Effects of livestock grazing on small mammal fauna and habitats, Capitol Reef National Park, Utah.	Rosenstock, S. Wingate Eco-Logic P.O. Box 462 Fredonia, AZ 86022 Phone: (602)643-7541	35	08/91	10,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	CARE	Survey and Analysis of Relict Plant Communities Within National Park Service Units of the Colorado Plateau	Van Pelt, Dr. N. Great Basin Field Office The Nature Conservancy P.O. Box 11486, Pioneer Station Salt Lake City, UT 84147-0486 Phone: (801)531-0999	15	12/90	210,000 90,000
RMR	CARE	Some responses of soil microphytic crust to livestock trampling	West, Dr. N. E. Utah State University Department of Range Science Logan, UT 84322-5230 Phone: (801)750-2572	20	07/94	0 45,000
RMR	CARE	Response of Avian Communities to Livestock-induced Changes to Vegetation in Capital Reef National Park, Utah.	Willey, D. W. High Desert Research P.O. Box 136 Torrey, UT 84775 Phone: (801)425-3569	30	09/91	10,000 10,000
RMR	CARE	Distribution and biology of Peregrine Falcons in Capitol Reef National Park and the Escalante and Dirty Devil River Corridors, Utah	Willey, D. W. High Desert Research P.O. Box 136 Torrey, UT 84775 Phone: (801)425-3569	30	08/91	5,000 4,000
RMR	CARE	Ecology of Introduced Bighorn Sheep	Workman, Dr. G. W. Utah State University Logan, UT 84322 Phone:	90	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	CEBR	Plant Community and Rare of Exotic Species Distribution and Dynamics in Cedar Breaks National Monument	Roberts, Mr. D. W. Utah State University Dept. of Forest Resources & Ecology Logan, UT 84322-5200 Phone:	55	06/90	14,000 10,000
RMR	COLM	Bat species abundance and distribution at Colorado National Monument Fruita, Colorado.	Adams, Mr. R. A. University of Colorado Dept. of EPO Biology Boulder, CO 80309-0334 Phone: (303)492-8189	100	09/89	0 1,000
RMR	COLM	Effects of air pollution on Cryptogramic Crusts	Belnap, Ms. J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	COLM	Peregrine Falcon Monitoring	Craig, Mr. J. Colorado National Monument Colorado Division of Wildlife Fruita, CO 81521-0001 Phone:	0	00/99	4,000 0
RMR	COLM	Guide to the Common Insects and Other Arthropods of Colorado National Monument	Kondratieff, Mr. B. C. Colorado State University Department of Entomology Fort Collins, CO 80523 Phone: ( ) -	90	12/90	0 1,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	COLM	Behavioral, Population, and Community Ecology of Iguanid Lizards.	M'Closkey, Mr. R. T. University of Windsor Department of Biological Sciences Windsor, Ontario N9B 3P4 Phone:	10	00/95	0 30,000
RMR	COLM	Baseline Air Quality Monitoring	Taylor, Mr. J. D. Colorado National Monument Air Quality Division Fruita, CO 81521-0001 Phone:	0	00/99	15,000 0
RMR	COLM	Survey and Analysis of Relict Plant Communities within National Park Service Units of the Colorado Plateau.	Van Pelt, Dr. N. S. Utah Public Lands Coordinator P.O. Box 11486 Pioneer Station Salt Lake City, UT 84147-0486 Phone: (801)531-0999	40	01/90	1,000 1,000
RMR	CURE	Surface Water Quality Monitoring	Stahlnecker, Mr. K. National Park Service Curecanti National Recreation Area 102 Elk Creek Gunnison, CO 81230 Phone: (303)641-2337	0	00/99	3,000 0
RMR	DETO	Changes in deciduous woodland plant communities in response to exclosure from deer browsing, Devil's Tower National Monument.	Jones, Mr. G. P. Wyoming Natural Diversity Database The Nature Conservancy Box 3165, University Station Laramie, WY 82071 Phone: (307)766-2720	50	01/90	2,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	DETO	Vegetation Responses to Fire	Marriott, Mr. H. The Nature Conservancy 3165 University Station Laramie, WY 82071 Phone: (307)766-2720	85	01/90	2,000 0
RMR	DINO	Effects of Air Pollution on Cryptogramic Crusts	Belnap, Ms. J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	DINO	Biological Surveys on Public Lands (NPS/FWS Interagency Agreement: IA-1200-9-0002)	Bogan, Mr. M. A. U.S. Fish & Wildlife Service National Ecology Research Center 4512 McMurray Avenue Fort Collins, CO 80525 Phone: (303)226-9463	65	12/93	5,000 5,000
RMR	DINO	Radio - telemetered monitoring of stocked Gila elegans in the Green River, Utah.	Chart, Mr. T. E. Utah Division of Wildlife Resources 152 East 100 North Vernal, UT 84078 Phone: (801)789-3103	85	04/89	0 63,000
RMR	DINO	Inventory of Plant Species of Special Concern and The General Flora of Dinosaur National Monument	Naumann, Ms. T. Colorado Natural Areas Program 1313 Sherman St., Room 618 Denver, CO 80203 Phone: (303)866-3047	80	04/90	14,000 5,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	DINO	Gamefish/endangered Fishes Interactions	Nesler, Mr. T. P. Colorado Division of Wildlife 317 West Prospect Fort Collins, CO 80526 Phone: (303)484-2836	60	12/91	0 85,000
RMR	DINO	Early Tertiary Tectogenic Sedimentation-North Fland of Uinta Mountains	Tollestrup, Mr. A. K. University of Wyoming Department of Geology & Geophysics P.O. Box 3006 Laramie, WY 82070 Phone: (307)766-3386	10	09/90	0 3,000
RMR	DINO	Colorado River Fish Project	Tyus, Mr. H. U.S. Fish and Wildlife Service Colorado River Fish Project 1680 W. Highway 40 Rm 1210 Vernal, UT 84078 Phone: (801)789-0354	0	00/99	0 0
RMR	FOBU	Develop Mini Quarry	Buchheim, Dr. P. Loma Linda University Department og Geological Sciences Riverside, CA 92515 Phone:	100	08/89	0 0
RMR	FOLA	Development of Flight Adaptations of the Little Brown Bat (Myotis lucifugus)	Adams, Mr. R. A. University of Colorado Boulder, CO 80309 Phone:	50	00/99	0 2,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	FOLA	Growth and developmemt of flight morphology in the little brown bat (Myotis lucifugus).	Adams, Mr. R. A. University of Colorado Department of EPO Biology Boulder, CO 80309-0334 Phone:	100	09/89	0 2,000
RMR	FOLA	Prairie Revegetation of Aquired Agricultural Inholdings (Holtzclaw Tract) at Fort Laramie National Historic Site.	Wylie, Mr. T. National Park Service 12795 W. Alameda P.O. Box 25287 Denver, CO 80225 Phone: (303)969-2650	50	08/93	12,000 0
RMR	GLAC	Portraying the physiography of Waterton/Glacier International Peace Park	Alpha, Mr. T. R. U.S. Geological Survey Office of Publications 345 Middleford Road Menlo Park, CA 94025 Phone: (415)329-5013	75	00/92	0 0
RMR	GLAC	Genetic Structure of Trembling Aspen Populations	Barnes, Dr. B. V. University of Michigan School of Natural Resources Dana Bldg., 430 E. University Ann Arbor, MI 48109-1115 Phone:	75	09/89	0 16,000
RMR	GLAC	Postglacial Vegetation and Climate of Glacier National Park	Barnosky, Dr. C. W. Carnegie Museum of Natural History Section of Paleobotany 4400 Forbes Ave. Pittsburg, PA 15213 Phone:	10	12/92	0 40,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	Analysis of Potential Sensitive Mammal Species for Long-term Monitoring in Glacier National Park	Beiswenger, R. E. University of Wyoming Dept. of Geography and Recreation P.O. Box 3371 Laramie, WY 82071 Phone: (307)767-6424	50	04/90	6,085 10,782
RMR	GLAC	Documentation and reconstruction of the Red Bench Fire event.	Bushy, Mr. C. University of Montana Systems for Environmental Mgmt. School of Forestry Missoula, MT 59812 Phone: (406)888-5441	0	00/90	11,970 0
RMR	GLAC	Inventory and monitoring of biodiversity	Debinski, Ms. D. Montana State University Biology Department Bozeman, MT 59717 Phone: (406)994-2332	75	12/89	15,000 1,000
RMR	GLAC	Soil Inventory Demonstration Project	Dutton, Mr. B. Dutton Resource Consulting P.O. Box 9272 Missoula, MT 59807 Phone:	25	06/90	4,000 0
RMR	GLAC	Ecology and distribution of the northern bog lemming, Synaptomys borealis, in Glacier National Park.	Foresman, Ms. K. R. University of Montana Division of Biological Sciences Missoula, MT 59812 Phone: (406)243-4492	15	10/90	0 5

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	A biosystematic study of Rocky Mountain Draba (Cruciferae).	Fox, Mr. L. University of Idaho Biological Sciences Department Moscow, ID 83843 Phone: (406)888-5441	0	00/90	0 0
RMR	GLAC	Basic inventory of horse flies (Tabanidae) and associated spiroplasmas of Glacier National Park	French, Mr. F. E. Georgia Southern College Professor of Biology Statesboro, GA 30460-8042 Phone: (912)681-5487	20	09/91	0 3,000
RMR	GLAC	An analysis of Ion Concentration and Deposition at St. Mary and Fire Weather Station NADP Monitoring Sites, Glacier National Park	Gibson, Mr. J. H. Colorado State University Natural Resource Ecology Lab Fort Collins, CO 80523 Phone: (303)491-1978	0	00/99	2,500 0
RMR	GLAC	Quantification of Federal reserved water rights	Hansen, Mr. W. R. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8333	20	10/91	8,900 0
RMR	GLAC	Exposure of the Lewis Thrust at Marias Pass Deformation in the Overthrust Plane	Heine, N. Federal Republic of Germany An der Muhlenriede 36 3180 Wolfsburg 13 Fed. Rep. of Germany,	10	12/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	Air/Vegetation Monitoring for Flouride.	Hoagland, Ms. E. Columbia Falls Aluminum Company P.O. Box 10 Columbia Falls, MT 59912 Phone: (406)892-3261	0	00/99	0 0
RMR	GLAC	Effects of the 1988 Red Bench Fire on Coleopteran and Hymenopteran Populations in Glacier National Park.	Ivie, Dr. M. A. Montana State University Entomology Research Laboratory Bozeman, MT 59717-0002 Phone: (406)994-4610	33	01/91	25,000 24,194
RMR	GLAC	Terrestrial Studies	Key, Mr. C. H. Glacier National Park Geographer, Research Division West Glacier, MT 59936 Phone: (406)888-5441	50	00/99	49,000 0
RMR	GLAC	Revegetation of the dozer lines that resulted from suppression efforts on the Red Bench Fire	Kurth, Ms. L. Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	25	12/93	25,000 0
RMR	GLAC	Prescribed fire in two grasslands in the North Fork of the Flathead River drainage	Kurth, Ms. L. Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	0	00/93	0 0
RMR	GLAC	Monitoring post-fire vegetation recovery in Ponderosa pine and sedge meadow communities in Glacier National Park, NW Montana.	Kurth, Ms. L. Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	33	09/91	15,570 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	Management of exotic plant populations that burned in the 1988 Red Bench Fire	Lange, Mr. D. Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	25	12/93	0 0
RMR	GLAC	Monitoring the effects of Global Warming Using Peripheral Rare Plants in Wet Alpine Tundra in Glacier National Park, Montana	Lesica, P. P.O. Box 8944 Missoula, MT 59807 Phone:	0	00/99	1,000 0
RMR	GLAC	Baseline monitoring transects in alpine wet tundra.	Lesica, Mr. P. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)888-5441	0	00/91	1,000 0
RMR	GLAC	Gray wolf prey base ecology in the North Fork Flathead River Drainage.	Marcum, Mr. C. L. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)243-6237	2	00/99	15 1
RMR	GLAC	Biology of the Bull Trout (Salvelinus confluentus) in Upper Kintla Lake, Glacier National Park, Montana	Marnell, Dr. L. F. Aquatic Ecologist Glacier National Park West Glacier, MT 59936 Phone:	80	12/91	2,000 0
RMR	GLAC	Fishes of Glacier National Park	Marnell, Dr. L. F. Aquatic Ecologist Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	10	12/91	1,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	Fishery Investigations in the Lake McDonald Basin, Glacier National Park, Montana	Marnell, Dr. L. F. Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	15	12/95	4,500 0
RMR	GLAC	An analysis of potential sensitive plant species for long term monitoring in Glacier National Park.	Maurer, Mr. B. A. Brigham Young University Department of Zoology Provo, UT 84602 Phone: (801)378-2426	0	08/90	0 0
RMR	GLAC	Nesting Ecology of Bald Eagles in Glacier National Park	McClelland, Mr. B. R. Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	60	10/92	20,000 8,000
RMR	GLAC	Characteristics of nest, perch, and roost trees and associated forest stands within home ranges of nesting Bald Eagles in Glacier National Park, Montana	McClelland, Mr. B. R. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)243-5675	80	10/90	2,000 13,000
RMR	GLAC	Higher fungi of Glacier National Park.	Miller Jr., Dr. O. K. VA Tech. & State University Department of Biology Blacksburg, VA 24061 Phone: (703)231-6765	90	00/99	0 0
RMR	GLAC	Mortality of white-tailed deer in an area recently recolonized by wolves.	Pletscher, Mr. D. H. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)243-6364	2	09/91	0 16,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	Gray Wolf Prey Base Ecology (moose)	Pletscher, Mr. D. H. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)243-6364	2	03/92	8 8
RMR	GLAC	Wolf Ecology Project in Glacier National Park.	Ream, Mr. R. R. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)243-4487	50	09/92	92 15
RMR	GLAC	Population dynamics of the alpine annual, Euphrasia arctica	Reynolds, Mr. D. N. Eastern Kentucky University Richmond, KY 40475 Phone: (606)622-2319	25	08/91	0 0
RMR	GLAC	The autumn concentration of bald eagles in Glacier National Park - ecology and management recommendations	Riley, Mr. B. Glacier National Park West Glacier, MT 59936 Phone: (406)888-5441	85	10/91	5,000 14,000
RMR	GLAC	Natural History - Ecology of the Inland Northwest.	Rogers, Sr., Mr. T. H. E. 10820 Maxwell Avenue Spokane, WA 99206 Phone: (509)926-7949	50	10/91	0 1,000
RMR	GLAC	Application of Remote Sensing and Digital Image Analysis for Assessing Wildland Fire Severity	Running, Mr. S. W. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)888-5441	5	05/91	22,900 16,800

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	Remote sensing applications to fire intensity determination, post-fire succession mapping, and burn mosaic quantification.	Running, Mr. S. W. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)888-5441	0	00/91	23,000 0
RMR	GLAC	Divide Creek watershed and flood assessment	Smillie, Mr. G. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8303	0	06/91	2,000 0
RMR	GLAC	Backcountry/Frontcountry Baseline Water Studies	Stanford, Dr. J. University of Michigan Flathead Lake Biological Station Polson, MT 59860 Phone: (406)982-3301	75	12/91	11,000 0
RMR	GLAC	Quantification of Federal reserved water rights	Stanford, Dr. J. A. University of Montana Flathead Lake Biological Station Polson, MT 59860 Phone: (406)982-3301	5	08/91	28,000 0
RMR	GLAC	Delineation of critical park resource areas.	Sundell, Mr. R. C. Northwestern University Argonne National Laboratory 9700 South Cass Avenue Argonne, IL 60439-4815 Phone: (708)972-5341	50	12/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GLAC	Ecology of Fescue Grasslands in Glacier National Park	Tyser, Dr. R. W. University of Wisconsin Department of Biology Madison, WI 54601 Phone: (608)785-8238	50	06/91	14,936 0
RMR	GLAC	Fire effects and vegetative recovery in sedge meadow and ponderosa pine communities.	Wakamoto, Mr. R. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)888-5441	0	00/91	7,800 15,570
RMR	GLAC	Monitoring Post-Fire Vegetation Recovery in Ponderosa Pine and Sedge Meadow Communities in Glacier National Park, NW Montana	Willard, E. E. University of Montana School of Forestry Missoula, MT 59812 Phone: (406)243-6665	40	06/91	0 14,000
RMR	GLAC	Investigation of the Lewis Thrust System in Glacier National Park, Montana.	Yin, Dr. A. University of California Department of Earth & Space Science Los Angeles, CA 90024-1567 Phone: (213)825-8752	50	06/91	0 60,000
RMR	GRKO	Exotic weed composition and distribution on Grant-Kohrs Ranch National Historic Site and recommended control alternatives.	Sawyer, Mr. P. T. Montana College of Mineral Sciences Park Street Butte, MT 59701 Phone: (406)496-4227	75	02/90	3,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GRSA	A Dendroclimatological Research Project for Great Sand Dunes National Monument	Mangimeli, Mr. J. A. White Sands National Monument P.O. Box 458 Alamogordo, NM 88310 Phone: (505)479-6124	100	12/89	0 3,000
RMR	GRSA	Documentation of Scarred Trees, Great Sand Dunes National Monument	Martorano, Ms. M. A. Goodson & Associates, Inc. 11949 West Colfax Avenue Lakewood, CO 80215 Phone: (303)233-2244	100	02/89	2,000 1,000
RMR	GRSA	Great Sand Dunes National Monument, List Classified Structures Inventory	Miller, Mr. S. Western Historical Studies, Inc. 1225 Atlantis Avenue LaFayette, CO 80026 Phone: (303)666-6200	95	02/90	4,000 0
RMR	GRSA	Ground water & the stabilizatioin of sand masses	Stewart, Dr. D. C. Adams State College Department of Geology Great Sand Dunes NM Alamosa, NM 81101 Phone:	5	12/90	10,000 5,000
RMR	GRSA	Cultural Resources Survey of Great Sand Dunes National Monument Developed Area	Williams, Mr. W. Anthro-Evaluations Star Route Ft. Garland, CO 81133 Phone: (719)379-3276	75	02/90	1,000 1,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GRTE	Bison Monitoring Program	Cain, S. Grand Teton National Park P.O. Drawer 170 Moose, WY 83012 Phone: (307)733-2880	0	00/99	5,000 0
RMR	GRTE	Black Bear Monitoring Program	Cain, S. Grand Teton National Park P.O. Drawer 170 Moose, WY 83012 Phone: (307)733-2880	0	00/99	5,000 0
RMR	GRTE	Distribution, Home Range, and Habitat of Boreal Owls in GTNP	Duffy, K. Grand Teton National Park P.O. Box 170 Moose, WY 83012 Phone: (307)733-2880	20	00/99	1,200 2,650
RMR	GRTE	Changes in Geomorhic Processes in the Snake River following impoundment of Jackson Lake and potential changes due to 1988 fires in the watershed.	Marston, R. A. University of Wyoming Dept. of Geography and Recreation P.O. Box 3371, University Station Laramie, WY 82071 Phone: (307)766-6386	30	00/99	28,800 0
RMR	GRTE	Effects of Fire on Hypogeous Fungi, Spore Dispersed and Dependent Flora Establishment Soils	Miller, Dr. S. L. Univeristy of Wyoming Department of Botany Laramie, WY 82071 Phone: (307)766-2235	30	09/92	15,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GRTE	Water-use investigation	Pettee, Mr. C. W. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8321	20	01/91	24,000 0
RMR	GRTE	Great Gray Owl Abundance, Territory Size, and Habitat in GTNP	Reid, M. Grand Teton National Park P.O. Box 170 Moose, WY 83012 Phone: (307)733-2880	30	00/99	3,000 0
RMR	GRTE	Instream gravel extraction impact assessment	Smillie, Mr. G. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8303	30	12/90	0 0
RMR	GRTE	Density Dependent Population Regulation, and the Effects of Fire on Jackson Hole Elk.	Smith, B. U.S. Fish and Wildlife Service 675 E. Broadway P.O. Box C Jackson, WY 83001 Phone: (307)733-9212	10	09/92	15,000 0
RMR	GRTE	Earthquake Hazards	Smith, R. University of Utah Mines and Earth Sciences 717 W.C. Browning Bldg. Salt Lake City, UT 84112-1183 Phone: (801)581-7162	80	05/90	7,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	GRTE	The Movements, Productivity, and Habitat-use Patterns of Trumpeter Swans.	Squires, J. University of Wyoming Cooperative Wildlife Research Unit Laramie, WY 82071 Phone: (307)766-2091	85	08/90	15,000 0
RMR	GRTE	Monitoring and marking of harlequin ducks in GTNP	Wallen, R. Grand Teton National Park P.O. Box 170 Moose, WY 83012 Phone: (307)733-2880	100	09/89	1,150 1,050
RMR	JECA	Bats of Jewel Cave National Monument	Anderson, J. M. Fort Hays State University Department of Biology Hays, KS 67601 Phone: (913)628-5664	100	08/89	300 2,100
RMR	KNRI	Impacts of Prescribed Burning on Archeological and Biological Resources of the Knife River Indian Village NHS.	Sayler, Dr. R. D. University of North Dakota Grand Forks, ND	100	12/89	14,000 0
RMR	MEVE	Effects of Air Pollution on Cryptogramic Crusts	Belnap, Ms. J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	MEVE	Biological Surveys on Public Lands: NPS/FWS Interagency Agreement: IA-1200-9-0002)	Bogan, Mr. M. A. U.S. Fish & Wildlife Service National Ecology Research Center 4512 McMurray Avenue Fort Collins, CO 80525 Phone: (303)226-9463	20	12/93	5,000 5,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	MEVE	The Geology of Mesa Verde	Griffitts, Dr. M. 810 14th Street Boulder, CO 80302 Phone: (303)044-3014	75	00/99	2,000 24,000
RMR	MEVE	A Study of the Geology of Mancos Shale for long term research in Cretaceous Biostratigraphy and Paleoceanography of the Southern Western Interior Seaway: Phase I, Northern San Juan Basin	Leckie, Mr. R. M. University of Massachusetts Morrill Science Center Amherst, MA 01003 Phone: (413)545-2286	50	00/91	0 0
RMR	MEVE	DNA Extraction from Ancient Mummified Human Tissue	O'Rourke, Dr. D. University of Utah Department of Anthropology 102 Stewart Building Salt Lake, UT 84112 Phone: (801)581-7454	20	12/90	0 0
RMR	MEVE	Spruce Tree & Far View Ruins: Solar EFficiency of a Cliff Dwelling and an Open Site Structure at Mesa Verde	Quiatt, Dr. D. University of Colorado Department of Anthropology 1100 14th Street Denver, CO 80202 Phone: (303)629-8313	35	00/99	0 0
RMR	MEVE	Analysis of Mancos Canyon Skeletal Material	White, Dr. T. University of California Department of Anthropology Berkeley, CA 94720 Phone:	90	00/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	NABR	Dendroclimatic Characterizaton of Southwestern Paleoclimate during the Last 2000 years	Dean, Mr. J. S. University of Arizona Laboratory of Tree-Ring Research Tucson, AZ 85721 Phone: ( ) -	28	03/91	0 152,024
RMR	NABR	Ecology of rattlesnakes in disturbed environments: Crotalus viridis concolor densities and movement patterns in the vicinity of the residence/Visitor Center area of Natural Bridges NM.	Graham, Dr. T. National Park Service Southeast Utah Group 125 W. 2nd S. Moab, UT 84532 Phone:	40	05/91	4,000 0
RMR	PISP	Assessment of spring flow decline (Water Rights)	Pettee, Mr. C. W. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8321	70	06/91	0 0
RMR	RMNP	Long-term observation and documentation of condition of Rowe Glacier	Scott, Mr. R. B. 832 N. Lexington Street Arlington, VA 22205 Phone: (703)243-4138	0	00/99	0 0
RMR	ROMO	Faunal survey of the Dytiscidae (Coleoptera) of Colorado.	Barnett Jr., Mr. D. J. 2025 Jerry Murphy Rd. #223 Pueblo, CO 81001 Phone: (719)543-8472	85	11/90	0 0
RMR	ROMO	Effects of Acid Precipitation on Ecosystem	Baron, J. National Park Service	80	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Long-term ecological research in Loch Vale Watershed, ROMO	Baron, Ms. J. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)491-1968	80	09/92	98,600 30,000
RMR	ROMO	Trails as Conduits to Exotic Plant Movement	Benninger, M. Miami University of Ohio	100	00/99	0 0
RMR	ROMO	Verification of Lake Productivity Index	Bergerson, E. Colorado State University Ft. Collins, CO 80523 Phone:	75	00/99	0 0
RMR	ROMO	The Influence of Domestic Herbivores on Plants	Bock, Dr. J. H. University of Colorado EPO Biology Box 334 Boulder, CO 80309 Phone:	100	12/89	0 56,000
RMR	ROMO	Environmental Effects on C4 Photosynthesis	Bowman, Dr. W. D. University of Colorado Department of EPO Biology Campus Box 334 Boulder, CO 80309 Phone: (303)492-2557	5	01/92	0 4,740
RMR	ROMO	Geology of Park	Braddock, W. U.S. Geological Survey	100	00/99	0 0
RMR	ROMO	Implications of Multi-trunk Growth Form of Limber Pine	Carsey, K. 3849 Orion Ct. Boulder, CO 80304 Phone:	75	09/90	0 1,650

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Foraging Strategies of White-Tailed Ptarmigan	Clark, J. A. Washington State University Pullman, WA	100	00/99	0 0
RMR	ROMO	A study of chemical weathering rates in an alpine watershed	Clow, Mr. D. W. University of Wyoming Department of Geology P.O. Box 3006 Laramie, WY 82071 Phone: (307)766-2886	20	12/90	0 0
RMR	ROMO	Abert Squirrel Survey	Connor, J. National Park Service	20	00/99	0 0
RMR	ROMO	Riparian Classification of the Front Range of Colorado	Cooper, Mr. D. 3803 Silver Plume Boulder, CO 80303 Phone: (303)499-6441	75	01/90	0 0
RMR	ROMO	Wetland Plant-Soil-Hydrology in Big Meadows	Cooper, Dr. D. J. Colorado School of Mines Dept. of Environmental Sciences Golden, CO 80401 Phone: (303)499-6441	0	00/99	0 14,000
RMR	ROMO	Riparian Classification of the Front Range of Colorado.	Cooper, Mr. D. 3803 Silver Plume Boulder, CO 80303 Phone: (303)499-6441	75	01/90	0 12,000
RMR	ROMO	Lawn Lake Revegetation	Dott, C. University of Wisconsin	100	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Paleontology of Cascade Site, RMNP	Elias, Mr. S. A. University of Colorado Instaar, Campus Box 450 Boulder, CO 80309 Phone:	20	10/90	0 0
RMR	ROMO	Reproductive Patterns of Solitary versus Clustered Limber Pine	Feldman, R. University of Colorado at Denver Department of Biology 1100 14th St. Denver, CO 80202 Phone: (303)572-8218	98	05/90	0 1,500
RMR	ROMO	Small Owl Study	Figgs, M. Boulder County Nature Assn. Boulder, CO	0	00/99	0 0
RMR	ROMO	Breeding Bird Census in Copeland Willow Carr	Figgs, M. Colorado University Boulder, CO	0	00/99	0 0
RMR	ROMO	Revegetation of the Ouzel Burn	Gellhorn, J.	80	00/99	0
RMR	ROMO	Population Ecology of White-tailed Ptarmigan	Giesen, K. M. Colorado Division of Wildlife 317 West Prospect Ft. Collins, CO 80526 Phone:	95	12/91	0 0
RMR	ROMO	Bedrock Sampling in the Presence of Dunes	Gomez, Mr. B. Indiana State University Department of Geography & Geology Terre Haute, IN 47809 Phone: (812)237-2444	50	07/91	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Effects of Herbage Availability on Foraging Behavior on Bighorn Sheep	Goodson, N. Colorado State University	100	00/99	0 0
RMR	ROMO	Movements and Distribution of Bighorn Sheep in the Never Summer Mountains	Goodson, N. National Park Service Rocky Mountain National Park Estes Park, CO 80517 Phone: (303)586-2371	80	05/90	5,000 3,500
RMR	ROMO	Analysis of Growth Trends and Variation in Conifers from the Colorado Front Range	Graybill, Dr. D. A. University of Arizona Tree-Ring Lab Rm. 105 West Stadium Tuscon, AZ 85721 Phone: (602)621-2945	100	12/89	0 0
RMR	ROMO	Reconstructing the roles of ontogenetic transformations in the hierarchial diversification of floral forms of Besseya (Sorophilorae).	Hafford, Mr. L. University of Minnesota Department of Biology Duluth, MN 55812-2496 Phone:	75	00/99	0 0
RMR	ROMO	Vegetation Cover Map	Hess, K. 712 Stagecoach Dr. Las Cruces, NM 88001 Phone: (505)522-1172	85	12/90	6,550 0
RMR	ROMO	Fire Effects on the High Elevation Forest-Alpine Ecotone: Rates of Regeneration and the Succession of Growth Form	Huckaby, L. S. Colorado State University Dept. of Forest and Wood Sciences Fort Collins, CO 80523 Phone:	80	06/90	0 7,200

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Dissertation research: Sociality & Behavioral Ecology of Wyoming Ground Squirrels, Spermaphilos Elogans.	Hunley, Ms. J. University of Kansas Division of Biology Lawrence, KS 66044 Phone: (913)843-1163	5	09/92	0 150,000
RMR	ROMO	Plant Succession on the Lawn Lake Alluvial Fan	Keigley, R. B. National Park Service Rocky Mountain National Park Estes Park, CO 80517 Phone: (303)586-2371	100	00/90	0 0
RMR	ROMO	Restoration of Plant Communities	Keigley, R. B. Rocky Mountain National Park Estes Park, CO 80517 Phone: (303)586-2371	0	00/93	29,400 0
RMR	ROMO	Riparian Vegetation Distribution in relation to elevation and geomorphology for the Cache la Poudre River, CO.	Kittel, Ms. G. M. University of Wyoming Department of Biology P.O. Box 3165 Laramie, WY 82071 Phone: (307)766-4393	50	10/90	0 1,000
RMR	ROMO	Water Quality Survey	Kondratieff, B. National Park Service	100	00/99	0 0
RMR	ROMO	Glacial Geology and Late Quaternary History of Roaring River Valley, RMNP.	Madole, R. F. U.S. Geological Survey Box 25046, MS 966, DFC Denver, CO 80225 Phone: (303)236-1617	50	10/92	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Vegetation Recovery at Lawn Lake	Mansfield, D. H. Rollins College Winterpark, FL 32789 Phone:	10	00/99	0 0
RMR	ROMO	Black Bear Ecology	McCutchen, H. E. National Park Service Rocky Mountain National Park Estes Park, CO 80517 Phone:	85	09/90	40,000 0
RMR	ROMO	Soil Development and Erosion on a Pinedale Catena, Ten Years After the Ouzel Lake Burn, RMNP.	McMillan, M. E. Department of Geological Sciences Campus Box 250 Denver, CO 80309 Phone: (303)492-2609	75	05/90	0 0
RMR	ROMO	Determine sense of movement on Precambrian Shearzones NE Front Range, CO	Nesse, Mr. W. University of Northern Colorado Department of Earth Sciences Greely, CO 80639 Phone: (303)351-2830	40	09/90	0 0
RMR	ROMO	Butterfly Inventory	Opler, P. Fish and Wildlife Service	30	00/99	0 0
RMR	ROMO	The black flies (Diptera: Simuliidae) of North America	Peterson, Dr. R. V. Department of Agriculture Systematic Entomology Laboratory U.S Nat'l Museum of Natural History Washington, D.C. 20560 Phone:	5	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Colorado Native Plant Society Research Project/RMNP Cooperative Restoration	Richards, Ms. V. 3125 West Momouth Avenue Englewood, CO 80110 Phone: (303)794-5432	20	05/94	0 0
RMR	ROMO	An application of Relative Age Dating Techniques to Front Range Cirques.	Routt, Mr. B. Ohio State University Department of Geology & Minerology 125 South Ovel Mell Columbus, OH 43210 Phone: (614)292-5477	70	06/90	0 0
RMR	ROMO	Breeding Bird Atlas of Colorado	Ryder, Dr. R. A. Colorado State University Wildlife Biology Fort Collins, CO 80523 Phone: (303)484-6547	50	08/92	0 0
RMR	ROMO	Vegetation Community Study	Stevens, D. R. National Park Service	0	00/99	0 0
RMR	ROMO	Aquatic Resource Survey	Stevens, D. R. National Park Service Rocky Mountain National Park Estes Park, CO 80517 Phone: (303)586-2371	0	12/93	5,000 10,000
RMR	ROMO	Ungulate Winter Habitat Conditions and Management	Stevens, D. R. National Park Service Rocky Mountain National Park Estes Park, CO 80517 Phone: (303)586-2371	80	04/93	8,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ROMO	Native Fish Restoration	Stevens, D. R. Rocky Mountain National Park Estes Park, CO 80517 Phone: (303)586-2371	0	00/99	15,000 5,000
RMR	ROMO	Hydrology and Geomorphology of Fall River	Thorne, C.	100	00/99	0
RMR	ROMO	Acidification of Front Range Lakes	Turk, J. U.S. Geological Survey Bldg. 53, MS 415 Denver Federal Center Lakewood, CO 80225 Phone: (303)236-4886	80	00/99	0 30,000
RMR	ROMO	Recovery Patterns of Forest Following Disturbance	Veblen, T. T. Colorado University Fort Collins, CO 80521 Phone:	65	00/99	0 0
RMR	ROMO	Recovery of Alpine Tundra Following Trampling	Willard, B. Colorado School Mines Goldens, CO 80401 Phone:	0	00/99	0 0
RMR	ROMO	A Study of Plant Geography from Southern Wyoming into Rocky Mountain National Park	Williams, R. L. University of Wyoming 1701 South 17th St. Laramie, WY 82070 Phone: (307)742-6543	90	09/90	0 0
RMR	ROMO	Survey of Special Interest Plants	Yeatts, L. 1395 Nile Street Golden, CO 80401 Phone: (303)279-3427	95	09/89	0 265

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	THRO	Experimental Biological Control (Insects) of Leafy Spurge in THRO	Carlson, Dr. R. North Dakota State University Department of Entomology Hultz Hall, Room 202 Fargo, ND 58105 Phone: (701)237-7581	10	00/99	0 0
RMR	THRO	Ecology, Range Use, and Habitat Preference of Reintroduced Elk in THRO	Irby, Dr. L. Montana State University Department of Biology Bozeman, MT 59717 Phone: (406)994-3252	100	10/89	29,000 1,000
RMR	THRO	Feral Horse Movements, Habitat Use, and Population Dynamics in THRO	Marlow, Dr. C. Montana State University Bozeman, MT 59717 Phone: (406)994-3721	20	12/91	5,809 3,085
RMR	THRO	Visitor Expectations and Assessment of External Impacts at THRO	Wallace, Dr. G. University of Colorado Dept. of Recreation & Landscape Arc Ft. Collins, CO 80523 Phone: (303)491-5165	75	06/90	13,000 0
RMR	THRO	Rare Plants Inventory of THRO	Wieland, R. G. North Dakota Parks & Recreation Dep 1424 W. Century Avenue, Suite 202 Bismarck, ND 58501 Phone: (701)224-4887	85	09/90	5,000 3,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	WICA	Patterns of Plant Succession on Abandoned Prairie Dog Towns	Bock, J. H. University of Colorado E.P.O. Biology, Box 334 Boulder, CO 80309 Phone: (303)492-7758	60	03/90	2,000 1,000
RMR	WICA	Investigation of the Hydrologic Parameters of Water Level, Water Temperature, Air Temperature, and Barometric Pressure at Windy City Lake, in Wind Cave.	Greene, E. U.S. Geological Survey, WRD Room 237 - 515 Ninth St. Rapid City, SD 57701 Phone:	90	01/90	670 3,350
RMR	WICA	Vigilance and Group Size Assessment of Black-tailed Prairie Dogs	Kildaw, S. D. University of Alberta Zoology Office Edmonton, Alberta T6G 2E9 Phone:	50	10/90	0 3,000
RMR	WICA	Time Budgets of Black-Tailed Prairie Dogs: Age and Seasonal Effects	Loughry, J. Southwestern University Department of Biology Georgetown, TX 78626 Phone: (512)863-1622	40	09/91	0 2,000
RMR	WICA	Geology of Wind and Jewel Caves	Palmer, A. N. State University of New York Department of Earth Sciences Oneonta, NY 13820-4015 Phone: (607)431-3064	60	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	WICA	The Mammalian Predator Community of Wind Cave National Park	Taylor, R. J. Utah State University Dept. of Fisheries and Wildlife Logan, UT 84322-5200 Phone: (801)750-2465	90	04/90	14,000 4,200
RMR	WICA	Community Change at Wind Cave National Park	Tieszen, L. L. Augustana College Biology Department Sioux Falls, SD 57197 Phone:	85	01/90	3,200 5,300
RMR	YELL	Expansion of Comparative Collection	Adams, Mr. W. R. Indiana University Zooarcheology Lab	1	00/99	0 0
RMR	YELL	Late-Holocene Mammalian Fauna of Lamar Cave and its implications for ecosystems dynamics in Yellowstone National Park, Wyoming.	Agemnbroad, Dr. L. D. Northern Arizona University Flagstaff, AZ 86001 Phone:	50	00/99	20,000 0
RMR	YELL	Postfire Vegetation Dynamics in Lodgepole Pine Communities	Anderson, Mr. J. E. Idaho State University Pocatello, ID	20	00/99	0 0
RMR	YELL	Thermophilic Diatoms from hot springs and geysers in Yellowstone National Park	Andrews, Mr. K. J. Colorado College Colorado Springs, CO 80903 Phone:	45	00/99	0 1,000
RMR	YELL	Dendrochronology in the Yellowstone Fossil Forests.	Arct, Mr. M. Loma Linda University	99	06/90	0 650

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Ecology of Lakes and Streams	Averett, Mr. R. C. U.S. Geological Survey Water Resources Division NRP 5293 Ward Road Arvada, CO 80002 Phone:	70	00/99	0 12,000
RMR	YELL	Environmental Chemistry and biology of the Gibbon River, Yellowstone National Park	Barkan, Mr. D. N.	50	00/99	0 52,101
RMR	YELL	A Scientific Research Opportunity for Elementary Teachers in the State of Wyoming.	Barkan, Mr. D. N. Northwest College Powell, WY 82435 Phone:	50	00/99	0 4,000
RMR	YELL	Late-Quaternary vegetational and climatic history of the Yellowstone/Grand Teton region	Barnosky, Ms. C. W. Carnegie Museum of Natural History	30	00/99	25,771 0
RMR	YELL	Fire history of the Lamar River Drainage, Yellowstone National Park, Wyoming.	Barrett, Mr. S. W. University of Wyoming Missoula, MT	60	00/99	17,700 0
RMR	YELL	INT-4501 Mountain Parks.	Bartos, Mr. D. L. USDA Forest Service	100	00/99	0 900
RMR	YELL	Yellowstone National Park visitor attitudes toward fire and wildlife management issues.	Bath, A. J. University of Calgary Alberta, Canada	40	00/99	20,000 1,000
RMR	YELL	Actualistic Studies of Fire on Contemporary Landscapes: Toward an Understanding of Archaeological Occurrences	Bellomo, R. V. University of Wisconsin Milwaukee, WI	20	00/99	0 16,845

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Habitat Preferences of unexploited pine marten populations in Yellowstone National Park	Bissonette, Dr. J. A. Utah State University Utah Coop.-Fish & Wldlf. Research Logan, UT 84322 Phone:	15	00/99	19,952 16,006
RMR	YELL	Lepidopteran collections	Bowser, G.	70	00/99	0
RMR	YELL	Fire Ecology and management of whitebark pine	Bunting, Mr. S. C. University of Idaho Moscow, ID 83843 Phone:	80	00/99	0 32,641
RMR	YELL	Effects of Winter recreational use on elk in Yellowstone National Park	Cassirer, E. F. University of Idaho Dept. of Fish & Wildlife Resources Moscow, ID 83843 Phone:	75	00/99	31,000 1,000
RMR	YELL	Metabolic Activity of Photosynthetic Microorganisms within Hot Spring Microbial Mats	Castenholz, Dr. R. W. University of Oregon Dept. of Biology Eugene, OR 97403 Phone:	95	00/99	0 0
RMR	YELL	Dating Geomorphologic Surfaces using cosmogenic He.	Cerling, T. E. University of Utah Salt Lake City, UT 84112 Phone:	30	00/99	0 2,000
RMR	YELL	Thermophilic microorganisms as source of heat stable oxidase and peroxidase	Combie, Ms. J. J.K. Research	10	00/99	0 236,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Biomass and nitrogen responses to grazing of upland steppe on Yellowstone's northern winter range.	Coughenour, Mr. M. B. Colorado State University Fort Collins, CO	100	00/99	0 0
RMR	YELL	Effects of 1988 Fires on ecology of coyotes in Yellowstone National Park: Baseline Preceding possible Wolf Recovery	Crabtree, Mr. R. L.	20	00/99	29,700 0
RMR	YELL	Faunal Identification Collection	Creasman, Mr. S. D. Western Wyoming College Archaeological Services Natural History Museum Rock Springs, WY 82901 Phone:	0	00/99	0 0
RMR	YELL	National Register Nomination Preparation for Obsidian Cliff and Obsidian Resource Procurement, Yellowstone National Park	Davis, L. B. Montana State University Department of Sociology Bozeman, MT 59717 Phone:	60	00/99	22,995 0
RMR	YELL	Winter Nutritional Assessment of elk and bison in Yellowstone National Park	DelGiudice, Mr. G. D. Veterans Administration Medical Ctr Research Service-151 1 Veterans Dr. Minneapolis, MN 55417 Phone:	80	00/99	21,000 0
RMR	YELL	Status and distribution of Sandhill and Whooping Cranes summering in Yellowstone National Park	Drewien, Mr. R. C. University of Idaho Wildlife Research Institute Moscow, ID 83843 Phone:	90	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Basic Microbial Enhanced Oil Recovey Research	Dugan, P. R. Idaho National Engineering Lab.	10	00/99	0 550,000
RMR	YELL	Physical processes in large silicic magma systems.	Dzurisin, Mr. D. U.S. Geological Survey Cascades Volcano Observatory	75	00/99	0 50,000
RMR	YELL	Thermoluminescence dating of lake sediments.	Easterbrook, Mr. D. Washington University	0	00/99	0 0
RMR	YELL	Lichens of Yellowstone National Park	Eversman, Ms. S. Montana University Bozeman, MT	95	00/99	0 0
RMR	YELL	Stream classification of the Lamar River Drainage	Ewing, Mr. R. Yellowstone National Park Yellowstone N.P., WY 82190 Phone:	75	00/99	0 0
RMR	YELL	Sedimentology, microbiology, and stable isotope geochemistry of Modern Hot Spings	Farmer, Dr. J. D. University of California Dept. of Earth & Space Sciences Los Angeles, CA	30	00/99	0 1,000
RMR	YELL	Study of Pilobolus from Yellowstone National Park	Foos, Mr. K. M. Indiana University East Richmond, IN 47374 Phone:	80	00/99	0 0
RMR	YELL	Interpretation of the Geochemistry of Thermal Waters	Fournier, R. O. U.S. Geological Survey	50	00/99	0 45,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Grizzly Bear Behavior	French, Dr. S. P. Yellowstone Grizzly Foundation	25	00/99	0 0
RMR	YELL	Monitoring of Thermal Chloride Flux in Yellowstone National Park	Friedman, Mr. I. U.S. Geological Survey Branch of Isotope Geology	0	00/99	20,000 40,000
RMR	YELL	The effect of organic carbon amounts on soil hydrphobicity in canopy burned lodgepole pine forest	Garrett, A. Carleton College Department of Geology Department of Biology Northfield, MN 55057 Phone:	100	03/90	0 0
RMR	YELL	Grizzly Bear Aversive Conditioning Study	Gillin, C. M. Wyoming Game & Fish Dept.	95	00/99	0 70,000
RMR	YELL	Zonation Pattern of Geothermal Vents	Glime, Ms. J. M. Michigan Technological University Houghton, MI	0	00/99	0 0
RMR	YELL	The effects of the 1988 Clover-Mist Fire on the Cutthroat Trout (Oncorhynchus Clarki) Population of Cache Creek, Yellowstone National Park	Gould, Mr. W. R. Montana State University Montana Cooperative Fishery Research Unit Bozeman, MT 59717 Phone:	100	09/89	0 2,000
RMR	YELL	North Boundary Geothermal Connections Program	Hamilton, Mr. W. L. Yellowstone National Park National Park Service Yellowstone N.P., WY 82190 Phone:	60	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Lake Yellowstone Caldera Deformation History	Hamilton, Mr. W. L. Yellowstone National Park-NPS Yellowstone N.P., WY 82190 Phone:	25	00/99	0 0
RMR	YELL	Movements of bald eagles in the Greater Yellowstone Ecosystem	Harmata, Mr. A. Montana State University Biology Department Bozeman, MT 59717 Phone:	95	00/99	50,000 250,000
RMR	YELL	Ecology of the mountain lion in the Yellowstone Ecosystem	Havocher, Mr. M. Wildlife Research Institute	50	00/99	30,000 70,000
RMR	YELL	Flow Structure, Differences between sedimentary and igneous rocks	Heine, N. H. Universitat Braunschweig	10	00/99	0 300
RMR	YELL	Collection of Microorganisms from the Thermal Springs and Pools at Yellowstone National Park	Himmel, Dr. M. E. Solar Energy Research Institute Biotechnology Research Branch	50	00/99	0 5,000
RMR	YELL	Pocket gophers, plant resources, and montane vegetation	Huntly, Dr. N. Idaho State University Pocatello, ID 83843 Phone:	75	00/99	0 30,351
RMR	YELL	Geologic and Hydrothermal Studies of Yellowstone	Hutchinson, Mr. R. A. Yellowstone National Park National Park Service Yellowstone N.P., WY 82190 Phone:	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Effect of Forest Fire Size on Rocky Mountain Landbird Communities.	Hutto, Mr. R. L. University of Montana Missoula, MT 59801 Phone:	50	00/99	0 24,000
RMR	YELL	Finger printing obsidian flows and correlation with archeological specimens.	Johnson, Dr. A. Rocky Mountain Region-NPS	15	00/99	500 0
RMR	YELL	Fishery and Aquatic Management Program in Yellowstone National Park	Jones, Mr. R. D. U.S. Fish & Wildlife Service	0	00/99	133,000 133,000
RMR	YELL	Relationships among birds, willows, and native ungulates in and near northern Yellowstone National Park	Kadlec, Dr. J. A. Utah State University Dept. Fisheries & Wildlife Logan, UT 84322 Phone:	50	00/99	0 10,800
RMR	YELL	The Factors that limit Elk populations in the Greater Yellowstone Ecosystem.	Kay, Mr. C. E. Utah State University Dept. Fisheries & Wildlife Logan, UT 84322 Phone:	90	00/99	0 14,700
RMR	YELL	Multiphase fluid flow in geothermal and volcanic systems	Kieffer, Ms. S. W. Arizona State University U.S. Geological Survey Geology Department Tempe, AZ 85287-1404 Phone:	0	00/99	0 45,000
RMR	YELL	Fetal loss in bison in the Yellowstone Northern Range Herd	Kirkpatrick, Mr. J. F. Eastern Montana College Billings, MT 59101 Phone:	50	00/99	0 4,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	The influence of hydrothermal activity on the biology and chemistry of lakes in Yellowstone National Park	Klump, J. V. University of Wisconsin Center for Great Lakes Studies Milwaukee, WI	50	00/99	0 35,000
RMR	YELL	Firehole River Fisheries Investigations	Koch, Mr. E. D. Idaho State University Pocatello, ID 83201 Phone:	0	00/99	0 21,000
RMR	YELL	Distribution of amphibians and reptiles in Yellowstone National Park	Koch, Mr. E. D. Idaho State University Pocatello, ID 83201 Phone:	0	00/99	0 0
RMR	YELL	Bison Bone Density	Kreutzer, L. A.	50	00/99	0
RMR	YELL	Consequences of Fire on the Coupling of Terrestrial & Aquatic Ecosystems	Lathrop, Mr. R. G. Cook College/Rutgers University Dept. of Environmental Resources	30	00/99	0 70,000
RMR	YELL	The status, distribution and management of mountain goats in the Greater Yellowstone Ecosystem	Laundre, Mr. J. W. Idaho State University Pocatello, ID 83201 Phone:	95	00/99	13,000 0
RMR	YELL	Insect Response to the 1988 Fires in Yellowstone National Park	Lavigne, Mr. R. J. University of Wyoming Laramie, WY 82070 Phone:	60	00/99	9,619 10,171

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Operation of Borehole Tiltmeters in Yellowstone National Park	Levine, J. JILA-University of Colorado Boulder, CO 80309 Phone:	50	00/99	0 140,000
RMR	YELL	A study of Invertebrates of burned and unburned Lodgepole Pine and Sagebrush-grassland communities after the 1988 Yellowstone Fires.	Lowrie, Mr. D. C. New Mexico Museum of Natrl. History	0	00/99	1,300 1,000
RMR	YELL	Visitor Services Project, Yellowstone National Park	Machlis, Dr. G. E. University of Idaho College of Forestry Wildlife and Range Sciences Moscow, ID 83843 Phone:	0	00/99	12,500 0
RMR	YELL	Bacterial Diversity of Thermophilic Anoxygenic Phototrophs	Madigan, Dr. M. T. Southern Illinois University Carbondale, IL 62901 Phone:	50	00/99	0 7,000
RMR	YELL	Aquatic Ecosystem analysis for Soda Butte Creek	Mangum, Dr. F. Brigham Young University U.S. Fish & Wildlife Service Provo, UT 84602 Phone:	75	00/99	3,000 0
RMR	YELL	Changes on Geomorphic Processes in the Snake River Following Impoundment of Jackson Lake and Potential Changes Due to 1988 Fires	Marston, Mr. R. A. University of Wyoming Laramie, WY 82070 Phone:	33	00/99	28,000 10,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Boundary Area Restoration	Maskarinec, Mr. G. Wild Seed, Inc	0	00/99	3,500 0
RMR	YELL	Study of Carex, sedge (Cyperaceae)	Mastrogiuseppe, Ms. J. Washington State University Ownbey Herbarium Pullman, WA 99163 Phone:	50	00/99	0 0
RMR	YELL	Molecular investigation of the origin of the polyploid species, Castilleja crista-galli.	Mathews, Ms. S. Montana State University Department of Biology Bozeman, MT 59717 Phone:	0	00/99	0 350
RMR	YELL	Survey of Backcountry Users Regarding Sightings of Grizzly Bears in the Greater Yellowstone Area	McDonald, Dr. L. University of Wyoming Laramie, WY 82070 Phone:	66	00/99	0 0
RMR	YELL	Annual production, forage quality and utilization rate by elk and bison on the northern range.	McNaughton, Mr. S. J.	80	00/99	79,044 0
RMR	YELL	Bison Ecology	Meagher, Ms. M. Yellowstone National Park National Park Service Yellowstone N.P., WY 82190 Phone:	0	00/99	55,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Animal ecology- Bighorn sheep population recovery/dynamics	Meagher, Ms. M. Yellowstone National Park National Park Service Yellowstone N.P., WY 82190 Phone:	0	00/99	0 0
RMR	YELL	Remote sensing of vegetation recovery in grasslands after the 1988 fires.	Merrill, Ms. E.	20	00/99	9,000 0
RMR	YELL	Holocene and modern geomorphic response to wildfires and climate change in northeastern Yellowstone National Park	Meyer, G. A. University of New Mexico Department of Geology Albuquerque, NM 87131 Phone:	20	00/99	0 14,000
RMR	YELL	Studies of the effects of the 1988 wildfire on Yellowstone stream ecosystems	Minshall, Dr. G. W. Idaho State University Dept. of Biological Sciences Pocatello, ID 83201 Phone:	20	00/99	32,000 20,000
RMR	YELL	Surface Chemistry of Obsidian Cliff Rhyolite Glass	Mogk, Mr. D. W. Montana State University Bozeman, MT 59717 Phone:	50	00/99	0 0
RMR	YELL	Yellowstone River Suspended Sediment and Turbidity Study	Mohrman, J. Yellowstone National Park National Park Service Yellowstone N.P., WY 82190 Phone:	100	00/99	114,550 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	1990 Yellowstone Park Post-fire Sediment Study	Mohrman, Ms. J. Yellowstone National Park National Park Service Yellowstone N.P., WY 82190 Phone:	0	10/90	20,000 15,000
RMR	YELL	The small mammal communities in the first year following the Fan Creek Fire in 1979	Moore, R. E. Montana State University Bozeman, MT 59717 Phone:	100	00/99	3,000 3,000
RMR	YELL	Effects of fire on mosquito populations in Yellowstone National Park	Nielsen, Mr. L. T.	5	00/99	0 0
RMR	YELL	Fire impact studies, geochemical	Norton, Mr. D. R. U.S. Geological Survey	33	00/99	12,000 20,000
RMR	YELL	Thermophilic/pathogenic amoebae from hot pools	O'Dell, Dr. W. D. University of Nebraska Dept. of Biology Omaha, NE	50	00/99	0 835
RMR	YELL	Complementary Management Alternatives in the Greater Yellowstone Area	Omi, Mr. P. N. Colorado State University Fort Collins, CO 80521 Phone:	80	00/99	0 41,000
RMR	YELL	Evaluations of habitat selection patterns in native cervidae: elk	Peek, Dr. J. M. University of Idaho Dept. of Fish and Wildlife Res. Moscow, ID 83843 Phone:	0	00/99	25,000 10,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Visitor Impact on Grizzly Bear Activity in Pelican Valley, Yellowstone National Park	Picton, Mr. H. Montana State University Bozeman, MT 59717 Phone:	100	00/89	0 0
RMR	YELL	Determination of age structure in the Northern elk herd	Picton, Mr. H. D. Montana State University Bozeman, MT 59717 Phone:	30	00/99	0 27,279
RMR	YELL	Recolonization of burned aspen groves by land mollusks	Pillmore, Ms. D. B. University of Colorado Boulder, CO	25	00/99	0 642
RMR	YELL	Influence of organic and inorganic nutrients on blue-green algae in Hebgen Lake	Priscu, J. C. Montana State University Dept. of Biology Bozeman, MT 59717 Phone:	70	00/99	0 300,000
RMR	YELL	Glacial Geology at Yellowstone National Park	Richmond, Mr. G. M. U.S. Geological Survey	60	00/99	0 7,000
RMR	YELL	Grizzly and Black Bear Nutrition	Robbins, Mr. C. T.	10	00/99	0
RMR	YELL	Yellowstone Lake: Patterns in Productivity	Romme, Mr. W. H. Fort Lewis College Durango, CO 81301 Phone:	95	00/99	0 3,000
RMR	YELL	Fire and Landscape Dynamics in Yellowstone National Park	Romme, Mr. W. H. Fort Lewis College Durango, CO 81301 Phone:	95	00/99	0 124,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Mountain Pine and Beetle Outbreaks: Effects on Forest Productivity and Fuels in Yellowstone National Park	Romme, Mr. W. H. Fort Lewis College Durango, CO 81301 Phone:	0	00/99	0 0
RMR	YELL	Investigation of the Impact of Forest Fires on the Chemistry and Water Quality of Ground Water in Yellowstone National Park	Runnells, Dr. D. D. University of Colorado Dept. of Geological Sciences Boulder, CO 80302 Phone:	20	00/99	23,318 0
RMR	YELL	Thermophilic microorganisms for coal biosolubilization	Runnion, Mr. K. J.K. Research	100	00/99	0 50,000
RMR	YELL	Appraisal of Tree, Shrub, and Forb Mortality	Ryan, Mr. K. C. U.S. Forest Service Intermountain Fire Sciences Lab. P.O. Box 8089 Missoula, MT 59807 Phone:	25	00/99	0 1,662
RMR	YELL	The Monarch Project	Sakai, Mr. W. Santa Monica College L.A. County Natural Hist. Museum Santa Monica, CA 90406 Phone:	0	00/99	0 0
RMR	YELL	Dendrogeomorphology of debris flows on active alluvial fans, Yellowstone National Park, Wyoming	Schmitt, Mr. J. G. Montana State University Bozeman, MT 59717 Phone:	80	00/99	0 36,890

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Ecology, behavior, and conservation biology of Yellowstone pronghorn antelope	Scott, Dr. M. D. Yellowstone National Park Research Division Yellowstone N.P., WY 82190 Phone:	25	00/99	33,000 0
RMR	YELL	Did the 1988 Yellowstone fires affect the native soil's growing ability? A comparison of the growing ability in four types of grass.	Seelig, II, J. C. Kalamazoo Mathematics/Science Ctr.	0	00/99	0 750
RMR	YELL	Canada Goose Molting Area Surveys	Serdiuk, Mr. L. Wyoming Game & Fish Dept.	0	00/99	0 0
RMR	YELL	Highway Revegetation in Yellowstone National Park	Sheetz, Mr. J. G. USDA-Soil Conservation Service Plant Materials Center Bridger, MT	50	00/99	0 25,000
RMR	YELL	Effects of fire on Yellowstone Lake as revealed by recent and fossil diatoms	Shero, Dr. B. R. Medaille College 18 Agassiz Circle Buffalo, NY 14214 Phone:	25	00/99	0 2,500
RMR	YELL	Geographic variation, isolation and evolution of Cutthroat trout	Shiozawn, Mr. D. K. Brigham Young University Provo, UT 84602 Phone:	75	00/99	0 35,000
RMR	YELL	Research of fluoride effects in wildlife and vegetation	Shupe, Dr. J. L. Utah State University Logan, UT	95	00/99	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Pumice Fall Layers in Yellowstone National Park	Sigurdsson, Dr. H.	50	00/99	0 30,000
RMR	YELL	Geochemical Investigation of High Temperature Petroleum and Natural Gas from Yellowstone adn Grand Teton National Parks	Simoneit, B. R. Oregon State University College of Oceanography Petroleum Research Group Corvallis, OR 97331 Phone:	85	00/99	0 8,000
RMR	YELL	Zircons and fluids: An experimental investigation with applications for radioactive waste disposal	Sinha, A. K.	60	00/99	0 0
RMR	YELL	Content Analysis and evaluation: Local, Regional and National Coverage of the 1988 Yellowstone-area wildfires	Smith, Mr. C. Ohio State University Columbus, OH 43210 Phone:	60	00/99	4,715 11,250
RMR	YELL	Crustal Deformation and Earthquake Studies of Yellowstone	Smith, Mr. R. B. University of Utah Dept. of Geology and Geophysics Salt Lake City, UT 84112 Phone:	33	00/99	0 0
RMR	YELL	Marketing Yellowstone National Park after the fires of 1988.	Snepenger, Mr. D. J. Montana State University College of Business Bozeman, MT 59717 Phone:	100	00/99	9,500 1,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Hydrophobicity of burned and unburned soils	Sobey, Mr. G. Keystone School San Antonio, TX	15	00/99	0 0
RMR	YELL	Distribution of thermoacidophilic bacteria in solfataric fields	Stetter, Dr. K. O. Universitat Regensburg Lehrstuhl fur Mikrobiologie Universitatsstr. 31, D-8400 Regensburg, F.R.G	30	00/99	0 0
RMR	YELL	Composition of plant communities initiating forest succession following wildfire	Stickney, Mr. P. F. USDA Forest Service Intermountain Research Station	40	00/99	0 1,600
RMR	YELL	Thermophilic bacteria for the removal of sulfur and ash-forming mineral matter from coal.	Stoner, Dr. D. L. Idaho National Engineering Lab.	10	00/99	0 150,000
RMR	YELL	Isotopic Studies of Yellowstone thermal waters; Geochronology of Yellowstone hydrothermal systems by U-series	Sturchio, Mr. N. C. Argonne National Laboratory	75	00/99	0 100,000
RMR	YELL	Gypsy Moth Detection	Sweaney, Mr. J. Yellowstone National Park Yellowstone N.P., WY 82190 Phone:	0	00/99	0 0
RMR	YELL	A study of the Mushroom Flora of Yellowstone National Park for Comparison with Sierra Nevada	Thiers, Mr. H. D. San Francisco State University San Francisco, CA 94122 Phone:	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Spatial heterogeneity of burn severity and first-year vegetation responses following fire on Yellowstone's subalpine plateaus	Turner, Ms. M. G. Oak Ridge National Laboratory Environmental Sciences Division	70	00/99	0 0
RMR	YELL	Correlation of Cretaceous strata in Southwestern Montana	Tysdal, Mr. R. G. U.S. Geological Survey	100	00/99	0 100
RMR	YELL	Antler characteristics of Northern Yellowstone Elk during 1988	Vales, Mr. D. J. University of Idaho Moscow, ID 83843 Phone:	0	00/99	1,000 900
RMR	YELL	Monitor Stromatolite Growth Rates and Inclinations	Vanyo, J. P. University of California Santa Barbara, CA 93106 Phone:	50	00/99	0 4,500
RMR	YELL	Water Quality changes in Yellowstone National Park associated with the fires of 1988.	Vertucci, Dr. F. A. Colorado State University Department of Biology Fort Collins, CO 80521 Phone:	70	00/99	0 10,000
RMR	YELL	Feasibility of DNA Fingerprinting Grizzly Bears	Vyse, Mr. E. R. Montana State University Biology Dept. Bozeman, MT 59717 Phone:	100	00/99	500 600
RMR	YELL	The interaction of fire and grazing on plant growth and community structure	Wallace, Ms. L. L. University of Oklahoma Norman, OK 73069 Phone:	35	00/99	22,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Response of Major Forage Species to Grazing by Bison and Elk	Wallace, Ms. L. L. University of Oklahoma Nolrman, OK 73069 Phone:	0	00/99	66,000 0
RMR	YELL	Determining Wolf Predation on Elk and Moose Through Scat Analysis	Weaver, Mr. J.	45	00/99	7,500 2,500
RMR	YELL	Eruption History of the Sepulcher Formation as Determined by Geochemistry	Webster, Jr., Dr. C. L. Loma Linda University Loma Linda, CA 92354 Phone:	70	00/99	0 9,500
RMR	YELL	Gibbon/Madison Mudslide Hazard Reconnaissance	Wells, II, Mr. W. G. USDA Forest Service Pacific Southwest Forest and Range Experimental Station	90	00/99	0 0
RMR	YELL	Yellowstone Flora	Whipple, Ms. J.	5	00/99	0
RMR	YELL	Thermal features of Yellowstone National Park	White, Mr. D. E. U.S. Geological Survey	0	00/99	0 0
RMR	YELL	Meiofauna of Lake Yellowstone beach sands	Whitman, Mr. R. Indiana Dunes National Lakeshore	0	00/99	0 0
RMR	YELL	Comparison of aquatic insects in stream areas of differing physical and chemical measurements.	Winternitz, B. L. Colorado College Colorado Springs, CO 80903 Phone:	10	00/99	0 800

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	YELL	Turbidimetric Determination of Sulfates	Wittek, E. Montana State University Bozeman, MT 59717 Phone:	100	00/99	0 0
RMR	YELL	Unique microbial enzyme systems	Wolfram, J. H.	15	00/99	0
RMR	YELL	Ecological studies on parasites of the Gibbon Elk Herd	Worley, Mr. D. E. Montana State University Veterinary Research Lab. Bozeman, MT 59717 Phone:	0	00/99	0 0
RMR	YELL	Respiratory physiology and diving performance in two species of water scavenger beetles (Coleoptera: Hydrophilidae)	Ybarrondo, Mr. B. A. University of Vermont Department of Zoology Burlington, VT 05401 Phone:	40	00/99	0 5,900
RMR	YELL	Radar Forest Ecology of Burned Areas	Zebker, Mr. H. A. Jet Propulsion Laboratory	20	00/99	0 10,000
RMR	YELL	Ecology and Physiology of Novel Aerobic and Anaerobic Bacteria from Extreme Environments	Zeikus, Mr. J. G. Michigan State University Michigan Biotechnology Institute East Lansing, MI 48823 Phone:	25	00/99	0 0
RMR	ZION	Quantification of Federal reserved water rights	Anderson, Ms. A. NPS-Rocky Mountain Region P.O. Box 25287 Denver, CO 80025 Phone: (303)969-2875	40	09/91	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ZION	Effects of Air Pollution on Cryptogramic Crusts	Belnap, Ms. J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	20,000 0
RMR	ZION	Quantification of Federal reserved water rights	Boyle, Dr. T. P. NPS-Water Resources Division Colorado State University 301 S. Howes Street, Room 353 Ft. Collins, CO 80521 Phone: (303)491-1452	95	09/90	0 0
RMR	ZION	The Influence of Pinyon Pine Hybrid Zones on Herbivorous Insect Abundances	Christensen, Ms. K. Northern Arizona University Department of Biological Sciences P.O. Box 5640 Flagstaff, AZ 86011-5640 Phone:	30	01/92	0 200,000
RMR	ZION	Habitat Preference of the Virgin River Spinedace	Deacon, Mr. J. E. University of Nevada Department of Biological Sciences Las Vegas, NV	80	01/90	13,000 0
RMR	ZION	Vegetation Communities of Zion National Park (Phase III)	Harper, Ms. K. T. Brigham Young University Dept. of Botany & Range Sciences Provo, UT 84602 Phone:	85	05/90	14,000 17,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
RMR	ZION	Quantification of Federal reserved water rights	Johns, Ms. A. E. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8304	60	07/91	0 0
RMR	ZION	Quantification of Federal reserved water rights	Taylor, Dr. D. W. Biosystems Analysis, Inc. 303 Portrero Street, Ste. 29-203 Santa Cruz, CA 95060 Phone:	70	07/91	4,100 0
RMR	ZION	Threatened and Endangered and Exotic Plant Survey	Welsh, Dr. S. L. Endangered Plant Studies, Inc. 129 N. 1000 E. Orem, UT 84057 Phone:	90	11/91	6,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BICY	Comparison of restoration methods for oil development sites	Best, Dr. G. R. University of Florida Center for Wetlands Gainesville, FL 32611 Phone: (904)392-2424	50	09/91	40 2
SER	BICY	Distribution and Habitat use of the Big Cypress Fox Squirrel	Humphrey, Dr. S. R. University of Florida Florida Museum of Natural History Gainesville, FL 32611 Phone: (904)392-1721	70	03/91	15,000 1,000
SER	BICY	Ecology and population dynamics of the Florida Panther in Big Cypress National Preserve	Jansen, Ms. D. K. National Park Service Big Cypress National Preserve S. R. Box 110 Ochopee, FL 33943 Phone: (813)695-2000	40	09/91	60,000 0
SER	BICY	Population dynamics of white-tailed deer in the Big Cypress National Preserve	Labisky, Dr. R. F. University of Florida Newins-Ziegler Hall Dept. of Wildlife and Range Science Gainesville, FL 32611 Phone: (904)392-4851	35	03/92	100,000 0
SER	BICY	The use of fire in the control of melaleuca	Myers, Dr. R. L. The Nature Conservancy Route 1, Box 678 Tallahassee, FL 32312 Phone: (904)893-4153	45	04/91	2,000 20,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BICY	Wading bird survey	Schortemeyer, Mr. J. L. Florida Game and Fish Commission 566 Commercial Blvd. Naples, FL 33942 Phone: (813)643-4220	90	09/90	6,000 5,000
SER	BICY	Effect of season of burning on prairie plant flowering	Snyder, Dr. J. R. National Park Service Big Cypress National Preserve S.R. Box 110 Ochopee, FL 33943 Phone: (813)695-2000	95	06/89	5,000 0
SER	BICY	Effect of season of burning on resprouting of hardwood shrubs	Snyder, Dr. J. R. National Park Service Big Cypress National Preserve S.R. Box 110 Ochopee, FL 33943 Phone: (813)695-2000	80	06/90	5,000 0
SER	BICY	Survey of rare and endangered vascular plants in Big Cypress National Preserve	Snyder, Dr. J. R. National Park Service Big Cypress National Preserve S.R. Box 110 Ochopee, FL 33943 Phone: (813)695-2000	50	09/90	25,000 0
SER	BICY	Effect of fire on the reproductive biology of Jacquemontia curtisii	Spier, Ms. L. P. National Park Service Big Cypress National Preserve S.R. Box 110 Ochopee, FL 33943 Phone: (813)695-2000	50	09/90	8,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISC	Visual Fish Census at Biscayne Nat'l Park	Bohnsack, Dr. J. Southeast Fisheries Center 75 Virginia Beach Dr. Miami, FL 33149 Phone: (305)361-4252	30	09/93	10,000 0
SER	BISC	Population structure of gorgonian soft corals	Coffroth, Dr. M. State University of New York Dept. of Biological Sciences SUNY @ Buffalo Buffalo, NY 14260 Phone: (716)636-2881	10	12/93	0 5,000
SER	BISC	Effects of Salinity Upon the Leaf Morphology and Leaf Growth Rate of the Dwarf Form of the Red Mangrove (Rhizophora mangle) in Southern Florida.	Cole, Mr. C. A. University of Miami 19 Monastery Rd. Brighton, MA 02135 Phone: (617)787-0138	100	06/89	0 1,500
SER	BISC	Speciation in Hypoplectrus	Domeier, Mr. M. L. University of Miami/RSMAS 4600 Rickenbacker Causeway Miami, FL 33149 Phone: (305)661-2156	40	12/91	0 3,600
SER	BISC	Population Monitoring of the Scchaus Swallowtail Butterfly Population	Emmel, Dr. T. C. University of Florida Department of Zoology 1717 N.W. 45th Ave Gainesville, FL 32605 Phone:	0	12/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISC	The Role of Steroids in the Reproduction of Favia Fragum	Gassman, Ms. N. J. University of Miami, MBF/RSMAS 4600 Rickenbacker Causeway Miami, FL 33149 Phone: (305)361-4642	40	12/90	0 2,000
SER	BISC	Evaluation of growth rates and predation on corals	Glynn, Dr. P. W. University of Miami, RSMAS 4600 Rickenbacker Causeway Miami, FL 33149 Phone:	0	12/89	0 0
SER	BISC	Environmental Contamination of Coral Reef Areas	Jaap, Mr. W. C. Florida Dept. of Natural Resources 100 Eighth Avenue Southeast St. Petersburg, FL 33701 Phone: (813)896-8626	100	07/89	0 30,000
SER	BISC	Plant Identification	Jackson, Dr. J. R. Missouri Southern State 719 W. 3rd Street Joplin, MO 64801 Phone:	0	12/89	0 0
SER	BISC	Tropical Fish Collection	Johnson, Mr. C. Biscayne National Park P.O. Box 1369 Homestead, FL 33030 Phone: (305)247-2044	100	12/89	500 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISC	Algal Collection	Kappes, Mr. J. Miami Southridge Sr. High School 8005 S.W. 199 Terrace Cutler Ridge, FL 33189 Phone: (305) -	0	12/89	0 500
SER	BISC	Regional Groundwater Nutrient Transport	Lapoint, Dr. B. E. International Marine Research Rt 3, Box 297A Big Pine Key, FL	0	12/89	0 0
SER	BISC	Primary Ichthyofaunal Nursery Habitats of Southeast Biscayne Bay	Lindeman, Mr. K. C. University of Miami - RSMAS Div. of Marine Biology & Fisheries 4600 Rickenbacker Causeway Miami, FL 33149 Phone: (305)361-4195	80	08/90	0 150
SER	BISC	Does male sterility lead to outcrossing in Rhizophora mangle L.?	Lowenfeld, R. C. University of Massachusetts Dept. of Botany Amherst, MA 01003 Phone: (413)545-0524	25	01/91	0 1,000
SER	BISC	Occurrence of crocodilians in Biscayne National Park	Mazzotti, Dr. F. J. University of Florida 3245 College Ave. Davie, FL 33314 Phone: (305)370-3725	30	12/91	0 500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISC	Developmental Physiology of CASSIOPEA XAMACHANA	Meier, Ms. O. W. University of Georgia Department of Zoology 724 Biological Sciences Building Athens, GA 30602 Phone:	0	12/89	0 0
SER	BISC	Determinants of Social Organization among Fishes	Myrberg, Dr. A. A. University of Miami, RSMAS 4600 Rickenbacker Causeway Miami, FL 33149-1098 Phone: (305)361-4141	40	12/89	0 40,000
SER	BISC	Long Term Coral Reef Monitoring at Biscayne National Park	Porter, Dr. J. University of Georgia Athens, GA	50	12/93	43,032 0
SER	BISC	Hard Coral Predation	Potts, Dr. D. C. University of California Center for Coastal Marine Studies 2373 Applied Sciences Building Santa Cruse, CA 95064 Phone:	0	12/89	0 0
SER	BISC	Damselfish neurofibromatosis as a model of human NF.	Schmale, Dr. M. C. University of Miami, RSMAS 4600 Rickenbacker Causeway Miami, FL 33149 Phone: (305)361-4140	70	03/92	0 150,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISC	Behavioral and Neural Response of Larval Spiny Lobsters to Food Extracts	Shell, T. B. University of Miami 4600 Rickenbacker Causeway Miami, FL 33149 Phone: (305)445-5410	25	12/92	0 11,600
SER	BISC	Coral Reef Chronology	Shinn, Dr. E. A. U.S. Geological Survey Fisher Island Station Miami Beach, FL 33138 Phone:	0	12/89	0 0
SER	BISC	Ecophysiology of mangroves: water utilization.	Sternberg, Dr. D. O. University of Miami Department of Biology Coral Gables, FL 33124 Phone: (305)284-6436	5	12/92	0 243,000
SER	BISC	A. Control of skeletal banding in reef corals B. Coral skeletons as a source of nutrients for the coral	Szmant, Ms. A. M. University of Miami 4600 Rickenbacker Causeway Miami, FL 33149 Phone: (305)361-4609	20	12/91	0 40,000
SER	BISC	Cryptofaunal and Sediment Collection	Tedesco, Ms. L. University of Miami, RSMAS 4600 Rickenbacker Causeway Miami, FL 33149 Phone: (305) -	0	12/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISC	Incidental Collections	Valentine, Mr. W. H. Biscayne National Park 9700 S.W. 328th Street Homestead, FL 33090 Phone: (305)247-2044	100	12/89	50 0
SER	BISC	THALASSIA AND TURBIDITY: A Continuing Study of the Turtle-Grass of Biscayne Bay	Van Eck, Ms. S. H. National Park Service 19900 Holiday Rd. Miami, FL 33157 Phone: (305)251-7165	100	12/89	0 20
SER	BISO	Mussel Reproduction	Anderson, Mr. R. Tennessee Tech University U.S. Fish & Wildlife Service Co-op Fisheries Unit Cookeville, TN 38502 Phone: (615)372-3094	10	12/90	0 10,000
SER	BISO	Mussel Survey	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	95	12/90	0 16,500
SER	BISO	Landfill Study	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	40	12/89	5,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISO	Bear Creek Study	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	80	10/90	1,000 0
SER	BISO	Duck Box Project	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	90	07/90	1,000 0
SER	BISO	Gypsy Moth Survey	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	0	00/99	1,000 0
SER	BISO	Hazardous Waste Investigation at Obed	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	90	10/90	1,000 20,000
SER	BISO	Obed Mussel Survey	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	10	06/92	1,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISO	Weather Monitoring	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	0	00/99	500 0
SER	BISO	Twin Arches Vegetation Survey	Bakaletz, Mr. S. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	80	07/90	1,000 0
SER	BISO	Land Snail Survey	Caldwell, Dr. R. Lincoln Memorial University Harrogate, TN 37752 Phone: (615)869-3611	70	04/91	2,000 20,000
SER	BISO	Archeological Sites Monitoring Program	Des Jean, Mr. T. National Park Service Route 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	100	05/89	0 50,000
SER	BISO	Summer Public Archeology Program	Des Jean, Mr. T. P. National Park Service Route 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	95	06/90	1,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISO	A History of Southern Clay Manufacturing Company at Robbins, Tennessee.	Des Jean, Mr. T. National Park Service Big South Fork NRRA Oneida, TN Phone: (615)569-6025	90	06/90	321 0
SER	BISO	River Management Plan	Hammitt, Dr. W. University of Tennessee Dept. of Forestry Knoxville, TN 37916 Phone: (615)974-7126	70	12/92	1,000 0
SER	BISO	Black Bear Habitat Suitability Study	Pelton, Dr. M. University of Tennessee Knoxville, TN 37916 Phone: (615)974-7126	60	06/92	5,000 20,000
SER	BISO	Mussel Habitat Suitability Study	Richardson, Mr. J. Tenn. Tech. University Center of Excellence Cookeville, TN 38501 Phone:	100	01/90	0 20,000
SER	BISO	Kentucky Botanical Survey	Risk, Dr. A. KY Nature Preserves Commission 407 Broadway Frankfort, KY 40601 Phone: (502)564-2886	80	03/90	1,000 9,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BISO	Biso Water Quality Monitoring Project	Spradlin, Ms. E. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	0	00/99	13,000 0
SER	BISO	Cemetery Inventory	Spradlin, Ms. E. National Park Service Rt. 3, Box 401 Oneida, TN 37841 Phone: (615)569-6025	95	12/90	2,000 0
SER	BISO	Oil and Gas Survey	Vaculick, Ms. L. National Park Service Denver Service Center Denver, CO	80	06/91	50,000 0
SER	BLRI	Vaccinium and Rubrus breeding and genetics	Ballington, Dr. J. R. North Carolina State University Dept. of Horticultural Science Box 7609 Raleigh, NC 27695-7609 Phone: (919)737-3166	0	00/99	0 1,000
SER	BLRI	Crustacean distribution in the southern Appalachians	Biernbaum, Mr. C. K. College of Charleston Grice Marine Biological Laboratory 205 Ft. Johnson Charleston, SC 29412 Phone: (803)795-3716	5	12/95	0 200

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BLRI	A study of the ecology of the northern flying squirrel	Boynton, Mr. A. C. N.C. Wildlife Resources Comm 209 Ervin Road Morganton, NC 28655 Phone: (704)433-8669	80	06/91	0 6,250
SER	BLRI	A comparative study between two techniques of estimating fish habitat and populations in southern Appalachian headwater streams	Dolloff, Dr. C. A. VA Tech. & State University U.S. Forest Service 138 Cheatham Hall Blacksburg, VA 24061-0321 Phone:	70	06/90	4,000 500
SER	BLRI	Chemical ecology of swallowtail butterflies	Feeny, Dr. P. P. Cornell University Dept. of Ecology and Systematics Corson Hall Ithaca, NY 14853-2701 Phone: (607)255-3093	33	03/92	0 152,000
SER	BLRI	Structural, stratigraphic, and petrologic dissimilarities across the Hayesville Fault in western North Carolina.	Hatcher, Jr., Dr. R. D. University of Tennessee Dept. of Geological Sciences Knoxville, TN 37996-1410 Phone: (615)974-6565	50	12/90	0 5,000
SER	BLRI	Lichenological study on the Blue Ridge Parkway in North Carolina	Heiman, Ms. K. Consulting Biologist 130 Beverly Avenue Hendersonville, NC 28739 Phone:	50	06/90	300 350

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BLRI	Status of Anthophylax hoffmani (Beut.) and other Coleoptera: Cerambycidae on the Blue Ridge Parkway	Huether, Dr. J. P. Cornell University c/o N.Y.S.A.E.S Department of Entomology Geneva, NY 14456 Phone: (315)789-0645	50	12/92	0 900
SER	BLRI	Effects of acid precipitation on salamanders	Ireland, Dr. P. H. Radford University Radford, VA 24142 Phone: (703)831-5642	50	09/92	0 4,000
SER	BLRI	Geochemical and isotopic study of igneous rocks--southwestern Blue Ridge Parkway	Kish, Dr. S. A. Florida State University Dept of Geology B-160 Tallahassee, FL 32306 Phone: (904)644-2064	25	12/91	0 0
SER	BLRI	Distribution and status of the endemic Peaks of Otter salamander (Plethodon hubrichti) on the Blue Ridge Parkway	Mitchell, Dr. J. C. University of Richmond Department of Biology Richmond, VA 23173 Phone: (804)289-8234	75	12/90	600 0
SER	BLRI	Distribution and status of the endangered bog turtle	Mitchell, Dr. J. C. University of Richmond Department of Biology Richmond, VA 23173 Phone: (804)289-8234	80	12/90	500 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BLRI	Snake salvaging project on the Blue Ridge Parkway in Virginia	Mitchell, Dr. J. C. University of Richmond Department of Biology Richmond, VA 23173 Phone: (804)289-8234	0	00/99	0 800
SER	BLRI	Conglomerate deposits of the Grandfather Mountain formation (late Proterozoic): Insight into rifting of the Grenville continent	Neton, Mr. M. J. University of Tennessee Department of Geological Sciences 306 G&G Building Knoxville, TN 37996-1410 Phone: (615)974-2366	20	12/90	0 800
SER	BLRI	Soil survey for the Peaks of Otter, Blue Ridge Parkway	Nicholson, Mr. J. U.S. Soil Conservation Service Room 9201, Federal Building 400 North Eighth Street Richmond, VA 23240 Phone:	75	12/90	3,000 0
SER	BLRI	Comparative isozyme studies of Botrychium simplex	Pittillo, Dr. J. D. Western Carolina University Dept of Biology Cullowhee, NC 28723 Phone: (704)227-7244	20	05/91	0 0
SER	BLRI	Evolution of ethological and postmating isolation in salamanders of the genus Plethodon	Reagan, Ms. N. L. University of Chicago Ecology and Evoluation 940 E. 57th Street Chicago, IL 60637 Phone: (312)702-6001	85	10/90	0 17,850

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BLRI	Geological structure of the Blue Ridge in central Virginia	Spencer, Mr. E. Washington and Lee University Geology Department Lexington, VA 24450 Phone: ( ) -	20	00/99	0 0
SER	BLRI	Studies on plethodontid salamanders	Thurow, Dr. G. R. Western Illinois University Dept. of Biological Sciences Macomb, IL 61455 Phone: (309)298-1595	80	11/91	0 2,500
SER	BLRI	Kinematic analysis and petrology of ductile shear zones northwest of the Grandfather Mountain window, western North Carolina	Trupe, Mr. C. H. University of North Carolina Dept. of Geology CB #3315, Mitchell Hall Chapel Hill, NC 27599-3315 Phone: (919)966-4516	60	12/91	0 960
SER	BLRI	The evolution of ethological and post-mating isolation of salamanders	Verrell, Mr. P. A. University of Chicago Dept. of Ecology and Evolution 940 East 57th Street Chicago, IL 60637 Phone: (312)702-6001	15	07/92	0 98,963
SER	BLRI	Survey of Liatris helleri on Blue Ridge Parkway lands from milepost 299 to 306 (Watauga and Avery Counties, North Carolina)	Wear, Ms. D. Appalachian State University Department of Biology Boone, NC	100	03/89	1,500 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BLRI	Survey of rare and endangered vertebrates of the Blue Ridge Parkway in North Carolina	Weigl, Dr. P. D. Wake Forest University Department of Biology Winston-Salem, NC 27109 Phone: (919)759-5323	100	07/89	20,000 0
SER	BLRI	A study of trail users and their impact on the Tanawha Trail	Williams, Dr. W. Appalachian State University Department of HLES Boone, NC 28608 Phone: (704)262-6335	80	02/90	665 600
SER	BLRI	Patterns in vegetation and plant adaptations in widely disjunct species assemblages	Wiser, Ms. S. University of North Carolina Department of Biology CB #3280 Chapel Hill, NC Phone: (000)000-0000	25	05/92	0 4,000
SER	BUIS	Quantitative Assessment of Selected Components of the Coral Reef Ecosystem and Establishment of Long-term Monitoring Sites at Buck Island Reef National Monument, St. Croix, USVI.	Gladfelter, Ms. E. West Indies Laboratory St. Croix, US/VI Phone: (809)773-9339	50	06/91	40,000 0
SER	BUIS	Buck Island Reef NM Hawksbill Sea Turtle Research Program	Hillis, Ms. Z. National Park Service Buck Island Reef NM P.O. Box 160 St. Croix, USVI 00821-0160 Phone: (809)773-1460	100	12/89	13,735 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	BUIS	A Study of the Geologic Record of the Reefs on Buck Island	Hubbard, Dr. D. West Indies Laboratory St. Croix, USVI Phone: (809)773-9266	75	12/90	31,500 0
SER	CAHA	Management of shrub communities	Bratton, Dr. S. P. University of Georgia National Park Service Institute of Ecology Athens, GA 30602 Phone: (404)542-2968	85	08/91	15,000 0
SER	CAHA	Water Quality Monitoring on Bodie Island/Buxton Woods, CAHA	Cole, Dr. C. A. North Carolina State University P.O. Box 8004 Raleigh, NC 27695-8004 Phone: (919)737-3601	20	10/93	40,000 0
SER	CAHA	Buxton Woods Freshwater Wetlands: Interrelationships among Vegetation, Hydrology and Water Chemistry	Ehrenfeld, Dr. J. G. Rutgers University Center for Coastal & Env. Studies Doolittle Hall New Brunswick, NJ 08903 Phone: (201)932-3609	50	08/90	0 5,000
SER	CAHA	A Survey of Piping Plovers at Cape Hatteras and Cape Lookout National Seashores	Fraser, Dr. J. D. VA Tech. & State University Blacksburg, VA 24061 Phone: (703)231-6064	100	01/90	19,500 6,500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	CAHA	Gypsy Moth Detection Survey	Leonard, Ms. D. S. U.S. Forest Service 200 Weaver Boulevard P.O. Box 2680 Asheville, NC 28802 Phone: (704)257-4329	70	10/95	0 500
SER	CAHA	Benthic Macroinvertebrates of Seven Ponds at Cape Hatteras National Seashore	MacPherson, Ms. P. F. NC Division of Environmental Mgmt. P.O. Box 27667 Raleigh, NC 27611 Phone: (919)733-6946	25	12/90	0 4,000
SER	CAHA	An evaluation of changes in the avian and mammalian faunas of the Cape Hatteras National Seashore	Parnell, Dr. J. F. University of North Carolina-Wilmn. Route 3, Box 303-5 Wilmington, NC 28403 Phone: (919)395-3477	100	06/89	16,000 0
SER	CAHA	Baseline Floral Survey, Cape Hatteras National Seashore	Stalter, Dr. R. St. John's University Department of Biology Grand Central and Utopia Parkways Jamaica, NY 1439 Phone: (718)990-6161	20	09/94	0 1,000
SER	CALO	Piping Plover Distribution and Reproductive Success on Cape Lookout National Seashore	Fraser, Mr. J. D. VA Tech. & State University Dept. of Fisheries and Wildlife Blacksburg, VA 24061 Phone: (703)231-6064	100	03/90	19,500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	CALO	Sea Turtle Monitoring Program, 1989 Annual Report, Cape Lookout National Seashore	Rikard, Dr. M. W. National Park Service 415 Front Street Beaufort, NC 28516 Phone: (919)728-2250	100	12/89	10,000 0
SER	CANA	Biological Assessment for Effects of Constructing Railroad and Road Corridors Through Habitat of Florida Scrub Jay and Eastern Indigo Snake	Breininger, D. R. The Bionetics Corporation Mail Code BIO-2 NASA, Biomedical Operat & Research JFK Space Center, FL 32899 Phone: (407)853-3281	100	07/31	10,000 0
SER	CANA	Yeast Species Associated with Decaying Prickly Pear Cactus, Opuntia stricta And O. humifisa in the Area of Cape Canaveral, FL	Ganter, Dr. P. Barry University Academic Health Sciences Miami Shores, FL 33161 Phone: (305)758-3392	30	12/28	0 2,500
SER	CANA	Utilization of Open Marsh Water Management Rotary Ditches by the Threatened Atlantic Salt Marsh Snake	Goode, G. T. East Volusia Mosquito Control 1600 Aviation Center Parkway Daytona Beach, FL 32114 Phone: (904)252-8144	20	09/89	0 1,000
SER	CANA	Mosquito Lagoon Water Quality Monitoring	Rosenlieb, Mr. G. NPS-Water Resources Division 301 S. Howes, Room 353 Ft. Collins, CO 80521 Phone: (303)221-8325	2	09/92	95,000 6,800

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	CANA	Marine Turtle Nest Protection - Screening Versus Predator Removal	Stiner, J. C. Canaveral National Seashore 2532 Garden Street Titusville, FL 32796 Phone: (407)267-1110	100	10/15	49,900 0
SER	COSW	Survey of the Macrofungi in Congaree Swamp National Monument	Cowley, Dr. G. T. University of South Carolina Department of Biological Sciences 700 Sumter Street Columbia, SC 29208 Phone: (803)777-4141	20	11/93	0 13,750
SER	COSW	Fish Utilization of the Congaree River Floodplain	Dean, Dr. J. M. University of South Carolina Department of Biological Sciences 700 Sumter Street Columbia, SC 29208 Phone: (803)777-3952	45	12/90	0 7,500
SER	COSW	Investigation of the impacts of Clear-cutting, Feral Hogs, and white-tailed deer on the native vegetative resources of Congare Swamp National Monument.	Nix, Dr. L. Clemson University College of Forest Recreation Res. 261 Lehotsky Hall Clemson, SC 29634-1005 Phone: (803)656-3302	30	06/91	0 9,916
SER	COSW	Survey of Beetles in the Genus Methia for Congaree Swamp National Monument	Philips, Mr. T. K. Montana State University College of Agriculture Department of Entomology Bozeman, MT 59717-0002 Phone: (406)994-3860	40	12/90	0 5,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	COSW	Water Quality Research of Myers Creek, Reeves Creek, and Toms Creek at the Congaree Swamp National Monument.	Rikard, Dr. M. Clemson University College of Forest and Recreation 263 Lehotsky Hall Clemson, SC 29634-1005 Phone: (919)728-9950	75	06/90	3,705 2,713
SER	COSW	Forest Structure and Dynamics of Congaree Swamp National Monument	Sharitz, Dr. R. R. University of Georgia Savannah River Ecology Laboratory Drawer E Aiken, SC 29802 Phone: (803)725-2472	20	09/09	308 7,500
SER	CUIS	Reassessment of the Taxonomic Status of the Cotton Mouse (Peromyscus gossypinus anastasae) on Cumberland Island, Georgia, and the Implications of this Information for Conservation.	Boone, Mr. J. University of Georgia School of Forest Resources Athens, GA 30602 Phone:	0	00/00	0 0
SER	CUIS	Reintroduction of Bobcats to Cumberland Island National Seashore	Conroy, Mr. M. J. University of Georgia GA Coop. Fish & Wildlife Research Athens, GA 30602 Phone:	30	12/92	31,037 175,600
SER	CUIS	Inventory and monitoring of fishes, algae and sessil marine invertebrates of the jetty; and an inventory of fishes and water quality monitoring of South End Ponds of Cumberland Island National Seashore: Phase II.	Richardson, Dr. J. P. Savannah State College Marine Biology Program P.O. Box 20583 Savannah, GA 31404 Phone:	75	05/90	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	CUIS	Small mammal populations on Cumberland Island National Seashore	Warren, Mr. R. J. University of Georgia School of Forest Resources Athens, GA 30602 Phone:	60	12/90	500 8,200
SER	CUIS	Mare-foal behavior study of feral horses on Cumberland Island National Seashore.	Warren, Mr. R. J. University of Georgia School of Forest Resources Athens, GA 30602 Phone:	70	12/90	1,000 22,000
SER	CUIS	Habitat preferences of white-tailed deer and feral horses on Cumberland Island National Seashore.	Warren, Mr. R. J. University of Georgia School of Forest Resources Athens, GA 30602 Phone:	80	12/90	6,560 23,000
SER	CUIS	Immunosterilization & genetic management of barrier island horses	Warren, Mr. R. J. University of Georgia School of Forest Resources Athens, GA 30602 Phone:	85	12/90	3,000 63,095
SER	CUIS	Population Ecology of White-tailed Deer on Cumberland Island National Seashore	Warren, Mr. R. J. University of Georgia School of Forest Resources Athens, GA 30602 Phone:	100	12/89	3,000 85,683

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	CUIS	Ecology of armadillos on Cumberland Island National Seashore	Warren, Mr. R. J. University of Georgia School of Forest Resources Athens, GA 30602 Phone:	80	12/90	4,500 25,500
SER	DECA	Marine crustaceans	Quackenbush, Dr. L. S. Florida International University Department of Biological Sciences Tamiami Trail Miami, FL 33199 Phone: (305)348-3101	0	12/89	0 0
SER	EVER	Florida Panther Capture Work	Bass, Mr. O. L. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	66	09/91	40,000 0
SER	EVER	Florida Panther Population Study	Bass, Mr. O. L. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	66	09/91	130,000 0
SER	EVER	Development of an Oil Spill Response Model using GIS	Davis, Mr. B. National Aeronautics & Space Admin. Space & Technology Laboratory Building 1100 SSC, MS 39529 Phone: (601)688-1921	30	05/93	500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	EVER	Wetland Restoration Research in Abandoned Farmland: Everglades National Park - Hole-in-the-Donut	Doren, Mr. R. F. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	60	00/91	15,000 550,000
SER	EVER	East Everglades Exotic Control and Mitigation	Doren, Mr. R. F. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	0	00/00	35,000 60,000
SER	EVER	Plant Ecology Studies in Everglades National Park	Doren, Mr. R. F. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	1	00/99	56,000 0
SER	EVER	Elemental baseline studies on slash pine as indicators of air pollution	Gough, Dr. L. U.S. Geological Survey Denver Federal Center Mail Stop 973 Lakewood, CO 80225 Phone: (303)236-5513	100	01/90	50,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	EVER	Shark Slough Experimental Water Delivery Studies	Johnson, Mr. R. A. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	50	12/90	60,000 0
SER	EVER	Taylor Slough Water Management Impacts Study	Johnson, Mr. R. A. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	100	12/89	55,000 0
SER	EVER	Everglades Aquatic Food Web Study	Loftus, Mr. W. F. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	80	09/90	90,700 4,000
SER	EVER	Air Quality Pine Study	Mangis, Ms. D. R. Department of the Interior National Park Service - Air P.O. Box 25287 Denver, CO 80225-0287 Phone: (303)969-2809	70	09/89	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	EVER	Assessment of Benthic Communities Along Salinity Gradients in Northeast Florida Bay	Montague, C. L. University of Florida Department of Environmental Engineering Sciences Gainesville, FL 32611 Phone: (904)392-0836	90	06/89	0 82,500
SER	EVER	Shark Slough Hydro Pattern Study	Moon, Mr. D. S. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	8	12/92	17,000 0
SER	EVER	Experimental Fire Ecology and Management of Rockridge Habitats in Everglades National Park.	Platt, Mr. W. Louisiana State University Baton Rougue, LA Phone: ( ) -	5	00/99	88,400 0
SER	EVER	Seagrass Bed Deterioration	Robblee, Mr. M. B. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	2	09/92	72,000 0
SER	EVER	Estuary Studies	Robblee, Mr. M. B. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	50	09/90	120,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	EVER	Endangered Species Inventory and Monitoring	Robertson, Mr. W. B. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	100	12/31	27,000 0
SER	EVER	Florida Panther Genetics Study	Roelke, Ms. M. Florida Game Commission Wildlife Research Lab 4005 S. Main Street Gainesville, FL 32601 Phone: (904)376-6481	75	09/91	15,000 30,000
SER	EVER	Criteria Pollutant Monitoring in Everglades National Park	Schmidt, Mr. T. W. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-2381	0	12/90	15,000 0
SER	EVER	Marine Data Management in Everglades National Park	Schmidt, Mr. T. W. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	0	00/99	15,000 0
SER	EVER	Visibility Monitoring in Everglades National Park	Schmidt, Mr. T. W. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	0	12/90	2,500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	EVER	Hydrological Monitoring and Data Management	Sikkema, Mr. D. A. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	0	00/99	162,400 0
SER	EVER	Gamefish Harvest Monitoring	Tilmant, Mr. J. T. Department of the Interior Everglades National Park P.O. Box 279 Homestead, FL 33030 Phone: (305)245-1381	0	00/99	44,300 0
SER	EVER	Water Delivery Schedules for Everglades	Wagner, Mr. J. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)969-2955	90	12/90	0 0
SER	FOJE	Long Term Coral Reef Resources Assessment at Fort Jefferson Nat'l Monument	Jaap, Dr. W. Florida Marine Research Institute 100 8th Avenue S.E. St. Petersburg, FL 33701 Phone: (813)896-8626	50	09/91	37,939 0
SER	GRSM	Stream Ecology Teaching Exercise.	Baranski, Dr. M. J. Catawba College Department of Biology Salisbury, NC 28144 Phone:	100	04/89	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Statistical analysis of elemental concentrations in lichens in GRSM	Bennett, Dr. J. NPS - Coop. Park Studies Unit Institute of Environmental Studies 1040 WARF Bldg, 610 Walnut Street Madison, WI 53705 Phone: (608)262-9937	0	09/99	0 0
SER	GRSM	Crustacean Distribution in the Southern Appalachians.	Biernbaum, C. K. College of Charleston Grice Marine Biological Laboratory 205 Ft. Johnson Charleston, SC 29412 Phone: (803)795-3716	2	12/95	0 200
SER	GRSM	Life History of the Pigmy Salamander, Desmognathus wrighti.	Bruce, R. C. Executive Director Highlands Biological Station P.O. Box 580 Highlands, NC 28741 Phone:	5	12/91	0 250
SER	GRSM	The Effects of Biannual Removals of Rainbow Trout on Brook Trout and Rainbow Trout Populations in Lost Bottoms Creek of the Great Smoky Mountains.	Carter, B. 6524 Lambent Lane Knoxville, TN 37918 Phone: (615)689-2006	25	05/91	0 4,050
SER	GRSM	Algae of The Great Smoky Mountains National Park.	Cox, Dr. E. R. Tennessee Wesleyan College Department of Biology Athens, TN 37303 Phone: (615)745-7504	5	12/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Eastern White Pine Genetic Variation Study: Southern Appalachian Region.	Cox, R. A. Tennessee Division of Forestry P.O. Box 2666 Knoxville, TN 37901 Phone: (615)594-6432	10	12/00	0 500
SER	GRSM	Plant Systematics Field Trip.	DeLanglade, Dr. R. A. Wittenberg University Department of Biology Box 720 Springfield, OH 45501 Phone: (513)327-6475	100	05/89	0 600
SER	GRSM	Determinants of the quality of Wildlife Viewing in Cades Cove, Great Smoky Mountains National Park.	Dulin, J. University of Tennessee P.O. Box 1071 Knoxville, TN 3901 Phone: (659)747-126	50	08/90	0 12,000
SER	GRSM	Site and Stand Characteristics Associated with Potential Decline and Regeneration Success of Spruce-Fir Stands in the Southern Appalachians.	Durr, P. C. Great Smoky Mountains National Park Resource Management & Science Div. Route 2 Gatlinburg, TN 37738 Phone: (615)436-7120	99	12/89	0 24,000
SER	GRSM	Temporal Revegetation Patterns of Landslides in the Southern Appalachians.	Dyer, J. University of Georgia Department of Geography Athens, GA 30602 Phone: (404)542-2856	5	12/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Rare Plant and Animal Inventory and Monitoring (Natural Heritage Program).	Emmott, R. Great Smoky Mountains National Park Resource Management & Science Div. Gatlinburg, TN 37738 Phone: (615)436-1298	50	12/90	25,000 0
SER	GRSM	Immobilization of Radionuclides.	Eng, W. University of Tennessee Department of Microbiology Knoxville, TN 37996 Phone: (615)574-7334	10	05/90	0 115,000
SER	GRSM	Fishes of Great Smoky Mountains National Park.	Etnier, D. A. University of Tennessee Department of Zoology Knoxville, TN 37996 Phone: (615)974-3107	85	10/90	2,500 0
SER	GRSM	Histology of ozone injured leaves	Evans, Dr. L. Manhattan College Lab of Plant Morphogenesis Bronx, NY 10472 Phone: (212)920-0266	50	05/91	10,000 0
SER	GRSM	Scent Station Index Study.	Farmer, J. A. Great Smoky Mountains National Park Resource Management & Science Div. Route 2 Gatlinburg, TN 37738 Phone: (615)436-7120	90	07/90	800 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Mating Systems of Marasmioid Fungi (With Emphasis on Marasmius).	Gordon, S. A. University of Tennessee Department of Botany Knoxville, TN 37916 Phone: (615)974-6217	75	08/90	0 100
SER	GRSM	Interspecific and Intraspecific Mating Behavior of P. jordani and P. glutinosus.	Hairston, Dr. N. G. University of North Carolina Department of Biology CB #3280 Chapel Hill, NC 27599 Phone: (919)966-4405	25	09/91	0 0
SER	GRSM	Spiders of the Great Smoky Mountains National Park.	Harp, J. M. UT/OR Graduate School Oak Ridge National Laboratory P.O. Box 2009 Oak Ridge, TN 37831 Phone: (615)576-2685	25	12/90	0 0
SER	GRSM	Illustrated Guide to the Common Bryophytes of the Great Smoky Mountains National Park.	Heilman, Dr. A. S. University of Tennessee Department of Botany Knoxville, TN 37996 Phone: (615)974-2256	10	12/92	0 200
SER	GRSM	Experiments on the Effects of Trampling and Camping and Implications for Low-Impact Wilderness Use.	Johnson, B. University of Georgia Institute of Ecology Athens, GA 30602 Phone: (404)354-1758	100	10/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Fraser Fir Insect and Disease Resistance Screening and Genetic Variation Study.	Johnston, G. University of Tennessee Department of Forestry, Wildlife and Fisheries Knoxville, TN 37901 Phone: (615)974-7126	30	07/95	0 0
SER	GRSM	American Chestnut Collection.	Johnston, G. University of Tennessee Department of Forestry, Wildlife and Fisheries Knoxville, TN 37901 Phone: (615)974-7126	25	07/95	0 0
SER	GRSM	Geochemical and Isotopic Studies of Mafic Igneous Rocks of the Great Smoky Mountains.	Kish, S. A. Florida State University Department of Geology B-160 Tallahassee, FL 32306 Phone: (904)644-5860	30	12/92	0 0
SER	GRSM	Inventory of Natural Resources - Plants and Invertebrates.	Langdon, K. R. Great Smoky Mountains National Park Resource Management & Science Div. Gatlinburg, TN 37738 Phone: (615)436-1250	0	12/90	0 0
SER	GRSM	Evolution of Trichomycete Gut Fungi in Winter-Emerging Stonefly Nymphs (Allocapnia spp.).	Lichtwardt, R. W. University of Kansas Department of Botany Lawrence, KS 660445 Phone: (913)864-4301	60	06/90	0 7,563

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Atmospheric Deposition Monitoring.	Lindberg, S. E. Oak Ridge National Laboratory P.O. Box 2008 MS-6038 Oak Ridge, TN 37831 Phone: (615)574-7857	75	12/90	0 100,000
SER	GRSM	Effects of Wild Boar on Small Mammals in GRSM National Park.	Lusk, M. R. North Carolina State University Department of Forestry Box 8002 Raleigh, NC 27695 Phone:	35	05/90	0 3,500
SER	GRSM	Stream Recovery from Acid and Heavy Metal Contamination from Disturbed Anakeesta Formation.	Maas, Dr. R. P. University of North Carolina Environmental Studies Asheville, NC 28804 Phone: (704)251-6441	100	12/89	700 0
SER	GRSM	Age and Growth of Rainbow Trout in Little River.	Masterson, S. 8427 Kodak Road Knoxville, TN 37914 Phone: (615)933-6388	25	06/91	0 4,050
SER	GRSM	Collection of Selected Lichen Specimens.	McGrath, J. K. Delaware Valley Conservation, Inc. Box 393 Lansdowne, PA 19050 Phone:	10	12/90	0 1,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Ozone Effects Monitoring Program.	Neufeld, Dr. H. S. Great Smoky Mountains National Park Uplands Research Laboratory Route 2 Gatlinburg, TN 37738 Phone: (704)202-2683	75	12/90	65,000 0
SER	GRSM	Spiraea Virginiana Britton.	Ogle, D. W. Virginia Highlands Comm. College Associate Professor of Biology P.O. Box 828 Abingdon, VA 24210 Phone: (703)628-6094	100	12/89	0 500
SER	GRSM	Visitor Survey.	Overton, D. J. Great Smoky Mountains National Park Uplands Field Research Lab Gatlinburg, TN 37738 Phone: (615)436-7120	100	10/89	0 0
SER	GRSM	Preservation and Evaluation of Pieris floribunda and Fagus grandifolia.	Owings, R. C. The North Carolina Arboretum Route 3 Box 1249-B Asheville, NC 28806 Phone: (704)665-2492	0	12/89	0 0
SER	GRSM	Regeneration Patterns of Fraser Fir in the Great Smoky MOuntains.	Pauley, E. F. University of Tennessee Department of Ecology 691 Dabney Hall Knoxville, TN 37916 Phone: (615)974-3065	100	08/89	0 922

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Benthic Macroinvertebrate Ambient Network.	Penrose, D. NC Department of Environment, Health & Natural Resources P.O. Box 27687 Raleigh, NC 27611 Phone: (919)733-6946	100	12/89	0 0
SER	GRSM	Study of Intergradation in Plethodon jordani.	Petranka, J. W. University of North Carolina Department of Biology Asheville, NC 28804 Phone:	100	12/89	0 0
SER	GRSM	Small Mammal-Fisher Study.	Powell, R. A. North Carolina State University Department of Zoology Raleigh, NC 27695 Phone:	95	03/90	31,100 0
SER	GRSM	Investigation of the Boundary of the Bryson City Gneiss.	Prosser, J. University of Kentucky Department of Geological Sciences Bowman Hall Lexington, KY 40506 Phone: (606)257-3758	40	06/90	0 1,200
SER	GRSM	Native Plant/Seed Collection for Foothills Parkway Revegetation.	Ray, L. L. USDA-Soil Conservation Service Plant Materials Center Quicksand, KY 41363 Phone: (606)666-5069	10	12/94	0 7,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Erosion Control Feasibility Study at Two-Mile Interchange, West Prong of Pigeon River.	Sheehan, R. W. Sherwood Industries 715 West Locust Street P.O. Box 881 Johnson City, TN 37605 Phone: (615)929-0380	90	12/90	0 0
SER	GRSM	Genetic Variability Among and Between Populations of the Deer Mouse and Red-Backed Vole in the Southern Appalachians.	Steele, Dr. M. A. Wilkes University Department of Biology Wilkes-Barre, PA 18766 Phone: (919)761-5000	0	09/89	0 0
SER	GRSM	Collection of Fruiting Bodies of Mushrooms (Species of Russula and Boletus).	Steglich, W. c/o Dr. Raymond W. Holton University of Tennessee Department of Botany Knoxville, TN 37996 Phone: (615)974-2256	100	09/89	0 0
SER	GRSM	Land Snail Distributions: Polygyridae.	Thompson, Dr. F. G. University of Florida Florida Museum of Natural History Gainesville, FL 32611 Phone: (904)392-1721	20	11/92	0 3,600
SER	GRSM	Systematics of the Genus Desmognathus Salamanders in the Southern Appalachian Mountains.	Tilley, S. G. Smith College Department of Biological Sciences Northampton, MA 01063 Phone: (413)585-3817	0	12/89	0 4,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GRSM	Atmospheric Deposition and Red Spruce Nutrition in the GRSM National Park--Testing the Al Toxicity Nutrient Deficiency Hypothesis for Red Spruce Decline.	Van Miegroet, H. Oak Ridge National Laboratory Environmental Sciences Division P.O. Box 2008 Oak Ridge, TN 37831 Phone: (615)574-8286	75	12/89	0 350,000
SER	GRSM	Forest-Site-Soil Relationships in Great Smoky Mountains.	Weaver, G. T. Department of Forestry, Wildlife, and Fisheries P.O. Box 1071 Knoxville, TN 37901 Phone: (615)974-7126	100	11/89	0 500
SER	GRSM	Class Exercise on Geographical Variation in Salamanders.	Wiley, Dr. R. H. University of North Carolina Department of Biology Chapel Hill, NC 27599 Phone: (919)962-1340	0	12/90	0 0
SER	GUIS	Bibliography of scientific research for Gulf Islands National Seashore	Claxon, P. G. Rutgers University Doolittle Hall New Brunswick, NJ 08903 Phone: (201)932-3738	60	10/86	20,000 0
SER	GUIS	Perdido Key environmental monitoring	Dean, R. G. University of Florida Engineering Experiment Station 310 Weil Hall Gainesville, FL 32611 Phone: (904)392-4646	5	08/93	0 585,201

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GUIS	Ecology of Barrier Island Mammal Populations	Esher, R. J. Mississippi State University MSU Research Center Stennis Space Center, MS 39569 Phone: (601)688-2480	100	06/88	30,000 0
SER	GUIS	Vegetation monitoring before and after beach renourishment on Perdido Key	Gibson, D. J. University of West Florida Department of Biology Pensacola, FL 32514 Phone: (904)474-2648	5	07/94	0 43,694
SER	GUIS	Study of the composition and dynamics of the brackish and marine macroinvertebrates of Horn and Ship islands, Mississippi, and Perdido Key, Florida.	Heard, R. W. Gulf Coast Research Laboratory Beach Drive Ocean Springs, MS 39564 Phone: (601)374-5550	80	06/89	32,000 0
SER	GUIS	Biological monitoring study of intertidal and subtidal invertebrate populations at Perdido Key, Florida in conjunction with beach renourishment operations.	Heard, R. W. Gulf Coast Research Laboratory Beach Drive Ocean Springs, MS 39564 Phone: (601)374-5550	5	01/93	0 115,000
SER	GUIS	Reestablishment of the Perdido Key Beach Mouse (Peromyscus polionotus trissyllepsis) on Gulf Islands National Seashore.	Holler, N. R. Auburn University U.S. Fish & Wildlife Services 331 Funchess Hall Auburn, AL 36849 Phone: (205)826-4796	100	09/88	5,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GUIS	Beach Mouse research program: Gulf Islands National Seashore beach renourishment project	Holler, N. R. Auburn University U.S. Fish and Wildlife Service 331 Funchess Hall Auburn, AL 36849 Phone: (205)826-4796	10	08/94	0 94,016
SER	GUIS	Utilization of Gulf Coast barrier islands by migratory birds.	Moore, F. R. University of Southern Mississippi Department of Biological Sciences Hattiesburg, MS 39406 Phone: (601)266-4923	80	04/90	14,975 2,000
SER	GUIS	Processes and responses of coastal change, Perdido Key, Gulf Islands National Seashore.	Psuty, N. P. Rutgers University Doolittle Hall New Brunswick, NJ 08903 Phone: (201)932-3738	80	06/88	29,500 0
SER	GUIS	Restoration of Bald Eagle Populations	Simons, T. R. National Park Service Gulf Islands National Seashore 3500 Park Road Ocean Springs, MS 39564 Phone: (601)875-9057	100	06/89	20,000 5,000
SER	GUIS	Ecology of marine bird and Osprey populations	Simons, T. R. National Park Service Gulf Islands National Seashore 3500 Park Road Ocean Springs, MS 39564 Phone: (601)875-9057	50	03/95	10,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	GUIS	Red Wolf propagation and research project	Simons, T. R. National Park Service Gulf Islands National Seashore 3500 Park Road Ocean Springs, MS 39564 Phone: (601)875-9057	20	08/94	0 15,000
SER	GUIS	Geographic information system development	Williams, D. L. University of Southern Mississippi Department of Geography Hattiesburg, MS 39406 Phone: (601)266-4733	30	09/90	12,554 0
SER	MACA	Development of restoration techniques for removing grease, soot, and similar residues from cave surfaces in Mammoth Cave National Park, Phase II investigations.	Aley, Mr. T. Ozark Underground Laboratory Rt1. Box 62 Protem, MO 65733 Phone: (417)785-4289	75	00/90	8,998 0
SER	MACA	Resource Protection Studies to Accompany Test Re-Lighting of a Portion of Mammoth Cave, Mammoth Cave National Park, Kentucky	Aley, Mr. T. Ozark Underground Laboratory Rt. 1 Box 62 Protem, MO 65733 Phone: (417)785-4289	30	00/99	8,000 0
SER	MACA	Study of the fresh water fauna in the Green River, Mammoth Cave National Park	Cicerello, Mr. R. R. KY State Nature Preserves Comm. 407 Broadway Frankfort, KY 40601 Phone: (502)564-2886	100	01/90	0 8,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	MPS$/Other$
SER	MACA	Mega Lineaments and Fracture Trace Influence on Caves	George, Mr. A. I. 1869 Trevilian Way Louisville, KY 40205 Phone: (502)454-7713	50	00/99	0 1,000
SER	MACA	Investigation of Saltpeter Mining in Mammoth Cave	George, Mr. A. I. 1869 Trevilian Way Louisville, KY 40205 Phone: (502)454-7713	10	00/99	0 7,000
SER	MACA	Origin of Sulfates in Caves	George, Mr. A. I. 1869 Trevilian Way Louisville, KY 40205 Phone: (502)454-7713	0	00/99	0 0
SER	MACA	Pseudo Karst in Mammoth Cave National Park	George, Mr. A. I. 1869 Trevilian Way Louisville, KY 40205 Phone: (502)454-7713	100	03/88	0 300
SER	MACA	Survey, exploration, and mapping of the of Mammoth Cave National Park	House, Mr. R. S. Cave Research Foundation 2159 Londell Road Arnold, MO 63010 Phone:	1	00/99	0 0
SER	MACA	An Examination of Freshwater Mussels Within The Green River in Mammoth Cave National Park	Manzano, Mr. B. L. NPS, SE Archeological Center P.O. Box 2416 Tallahassee Tallahassee, FL 32316 Phone: (904)561-9106	50	08/90	600 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	MACA	Geology of Mammoth Cave	Palmer, Dr. A. N. State University of New York Oneonta, NY 13820-1380 Phone: (607)432-6024	70	08/10	0 0
SER	MACA	Comparison of terrestial cave communities	Poulson, Dr. T. L. University of Illinois at Chicago P.O. Box 4348 Chicago, IL 60680 Phone: (312)996-4537	50	00/99	0 4,000
SER	MACA	Aquatic cave communities, comparison of streams.	Poulson, Dr. T. L. University of Illinois at Chicago P.O. Box 4348 Chicago, IL 60680 Phone: (312)996-4537	50	00/99	0 2,000
SER	MACA	Narrative Description of Mammoth Cave	Sutton, Mr. M. Cave Research Foundation Route 1, Box 110A Annapolis, MO 63620 Phone: (314)546-2864	4	00/99	0 2,000
SER	MACA	An Archaeological Survey of Prehistoric Gypsum Crystal Mining in the Mammoth Cave System	Tankersley, Dr. K. Illinois State Museum Spring and Edwards Springfield, IL 62706 Phone: (217)782-6700	50	00/99	0 2,000
SER	MACA	Archeology of the Mammoth Cave area.	Watson, Dr. P. J. Washington University 1 Brookings Drive St, Louis, MO 63130-4899 Phone:	80	06/00	0 7,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	NATR	Studies of lichens occurring in the southeastern United States with emphasis on Saxicolous calciphiles.	Dey, Mr. J. P. Illinois Wesleyan University Department of Biology Bloomington, IL 61702 Phone: (309)556-3057	25	08/91	0 0
SER	NATR	Developmental Stability and Heterozygosity in Two Introduced Fire Ants and their Hybrid.	Ross, Dr. K. G. University of Georgia Department of Entomology Athens, GA 30602 Phone: (404)542-7699	100	12/89	0 53,080
SER	NATR	A Plant Survey of Attala County, Mississippi.	Winstead, Mr. R. Mississippi State University Department of Biology Route 4, Box 56 Kosciusko, MS 39090 Phone: (601)289-4625	100	12/89	0 0
SER	PINE	Tree Age Structure of Five Selected Pinelands.	Toops, Mr. P. L. Slippery Rock University Department of Parks & Recreation Route 1, Box 49L Guntown, MS 38849 Phone: (601)348-2470	100	04/89	200 2,000
SER	ROSE	Native plant seed collection	Owings, Mr. R. The North Carolina Arboretum Route 3, Box 1249-B Asheville, NC 28806 Phone: (704)665-2492	5	00/99	0 50

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	TORT	Seasonal phenologyof the tufted apple budmoth, Platynota idaeusalis (Walker)	Rock, Mr. G. C. North Carolina State University Entomology Department Box 7626, Grinnells Laborator Raleigh, NC 27695-7626 Phone:	60	11/91	0 1,000
SER	VIIS	Long Term Monitoring of Fisheries in the Virgin Islands National Park	Beets, Mr. J. Virgin Islands Fish and Wildlife Red Hook, St. Thomas Phone: (809)775-6762	50	09/91	14,000 0
SER	VIIS	1)Ecophysiology of Millepora alcicornis. 2)Extent and significance of Black Band disease in Lameshur Bay. 3)Coral bleaching and hurricane monitoring: destruction and recovery.	Edmunds, Dr. P. J. Eastpoint Nahant, MA 01908 Phone: (617)581-7370	100	12/89	500 7,000
SER	VIIS	1) Algal census - Yawzi Point, St. John, Virgin Islands; 2) Seagrass monitoring- Great Lameshur Bay, St. John, USVI	Muehlstein, DI. L. K. University of the Virgin Islands St. John, USVI Phone: (809)776-9200	50	06/90	0 2,000
SER	VIIS	Dry Forest Restoration Research on VINP Degraded Sites	Ray, Mr. G. J. National Park Service Virgin Islands National Park P.O. Box 710 Cruz Bay, St. John, USVI 00830 Phone: (809)776-4704	30	03/91	0 58,000
SER	VIIS	St. John Forest Dynamics and Flora Project	Reilly, Ms. A. E. New York Botanical Garden New York, NY	60	01/93	10,000 22,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SER	VIIS	Water Quality Monitoring	Rogers, Dr. C. National Park Service Virgin Islands National Park P.O. Box 710 Cruz Bay, St. John, USVI 00830 Phone: (809)776-4704	100	12/89	0 0
SER	VIIS	Windspirit anchor damage study	Rogers, Dr. C. National Park Service Virgin Islands National Park P.O. Box 710 Cruz Bay, St. John, USVI 00830 Phone: (809)776-4704	0	12/89	0 0
SER	VIIS	Bleached coral monitoring project	Rogers, Dr. C. National Park Service Virgin Islands National Park P.O. Box 710 Cruz Bay, St. John, USVI 00830 Phone: (809)776-4704	0	12/89	0 0
SER	VIIS	Peter Bay Reef Monitoring Project	Rogers, Dr. C. National Park Service Virgin Islands National Park P.O. Box 710 Cruz Bay, St. John, USVI 00830 Phone: (809)776-4704	0	12/89	0 0
SER	VIIS	Long-term monitoring of Coral Reefs, Lameshur Bay, St. John	Rogers, Dr. C. Virgin Islands Nat'l Park P.O. Box 710 Cruz Bay, St. John 00831 Phone: (809)776-4704	0	00/99	13,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BAND	Landscape Ecology of the Jemez Mountains	Allen, Dr. C. D. University of California Berkeley, CA	100	01/89	0 0
SWR	BAND	A Flora of Bandelier National Monument	Jacobs, B. F.	100	01/90	0
SWR	BAND	Resource - Efficiency and Ecosystem Function in Pinyon-Juniper Communities along an Elevation Gradient in Northern New Mexico.	Lajtha, Dr. K. Boston University Boston, MA	50	1/90	0 13,000
SWR	BIBE	Reproductive Biology and Pollination Ecology of "Opuntia kleiniae" complex (Cactaceae) in Trans-Pecos Texas.	Allred, Ms. C. Sul Ross State University 906 N. 10th. Alpine, TX 79830 Phone: (915)837-5112	75	12/90	0 100
SWR	BIBE	Vegetative Analysis on a Species By Species Basis	Amos, Dr. B. Angelo State University Department of Biology San Angelo, TX 76909 Phone: (915)942-2189	85	11/90	12,176 4,300
SWR	BIBE	Systematics of Curculionidae (Coleoptera).	Anderson, Dr. R. S. Texas A&M University Department of Entomology College Station, TX 77843 Phone:	65	00/99	0 0
SWR	BIBE	Upper Cretaceous Floras at Big Bend National Park	Baghai, Ms. N. University of Texas Department of Botany Austin, TX 78713 Phone: (512)471-5858	2	06/92	0 300

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Geohydrology and Potential for Contamination of Oak Spring, Big Bend National Park, Texas.	Baker, Jr., Dr. E. T. U.S. Geological Survey 8011 Cameron Rd. Bldg. 1 Austin, TX 78753 Phone: (512)832-5791	99	10/89	80,000 0
SWR	BIBE	Magmatic History of Pine Canyon Caldera, Chisos Mountains	Barker, Dr. D. S. The University of Texas at Austin Department of Geological Sciences Austin, TX 78713 Phone:	95	00/99	0 300
SWR	BIBE	Ecology, behavior (vocalizations) and Summer and Winter distribution of the Gray Vireo "Vireo vicinior"	Barlow, Dr. J. C. Royal Ontario Museum Department of Ornithology 100 Queen's Park Toronto, Ontario M5S 2C6 Phone: (416)586-5522	98	12/91	0 1,500
SWR	BIBE	Sources of Interpopulational Variation in Body Size of the Mottled Rock Rattlesnake "Crotalus lepidus" and the Blacktailed Rattlesnke "Crotalus molossus".	Beaupre, Mr. S. J. University of Pennsylvania Leidy Laboratory of Biology Philadelphia, PA 19104 Phone: (215)898-8419	25	09/92	0 5,800
SWR	BIBE	Habitat Use and Herd Social Structure of the Collared Peccary "Tayassu tajacu", in Southwestern Texas.	Benzing, Ms. C. J. University of California Department of Biology Grad. Office 405 Hilgard Avenue Los Angeles, CA 90024 Phone: (213)206-6514	5	12/92	0 2,600

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Fishery Survey of the Rio Grande in Big Bend National Park.	Bestgen, Mr. K. R. University of New Mexico Department of Biology Albuquerque, NM 87110 Phone: (505)277-5340	0	00/99	0 0
SWR	BIBE	Gambusia gaigei Broodstock Acquisition and Maintenance	Brooks, Mr. J. E. U.S. Fish & Wildlife Service P.O. Box 219 Dexter National Fish Hatchery Dexter, NM 88230 Phone:	0	00/99	0 2,000
SWR	BIBE	Modern Pollen Rain in the Big Bend Region of Texas	Bryant, Jr., Dr. V. M. Texas A&M University Department of Anthropology College Station, TX 77843 Phone:	90	12/90	0 1,025
SWR	BIBE	Petrology of the Alamo Creek Basalt, Big Bend National Park.	Carman, Jr., Dr. M. F. University of Houston Department of Geosciences Houston, TX 77204-5503 Phone: (713)749-3705	95	07/90	0 450
SWR	BIBE	Preliminary Analysis of Local Response to National Park Service Administration in Big Bend National Park: A Case Study in Three Selected Community Clusters.	Carroll, Dr. M. S. Washington State University Dept. of Natural Resource Sciences 123 Johnson Hall Pullman, WA 99164-6410 Phone: (509)335-2235	100	05/89	0 2,282

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Systematics and Ecology of Bees in the Genus "Perdita" (Andrenidae).	Danforth, Mr. B. N. The University of Kansas Department of Entomology Lawrence, KS 66045-2106 Phone: (913)864-4303	100	06/89	0 0
SWR	BIBE	Geology of the Sierra Quemada Caldera.	Deux, Mr. T. W. University of SW Louisiana Geology Department USL Box 44530 Lafayette, LA 70504 Phone: (318)231-6468	75	12/90	0 2,000
SWR	BIBE	An Analysis of Lithic Material from 10 Archeological Sites Recorded During the Archeological Survey on Phase II of the West Entrance Highway Project, Big Bend National Park, Texas.	Dickson, Dr. B. Texas A&M University Department of Anthropology College Station, TX 77843 Phone: (409)845-5242	60	03/90	0 1,000
SWR	BIBE	Long-term variation in the life history and demography of the iguanid lizards "Sceloporus merriami" and "Urosaurus ornatus".	Dunham, Dr. A. E. University of Pennslyvania Department of Biology Philadelphia, PA 19104-6018 Phone: (215)898-4117	0	12/91	0 95,000
SWR	BIBE	History of the Castolon Area	Elam, Dr. E. H. Sul Ross State University Center for Big Bend Studies Alpine, TX 79832 Phone: (915)837-8179	20	08/92	0 3,688

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Insect Fossils and Late Quaternary Environments of Western Texas.	Elias, Mr. S. A. University of Colorado Institute of Artic & Alpine Reseach Boulder, CO 80309 Phone: (303)492-5158	100	12/89	0 25,000
SWR	BIBE	Black-capped Vireo Headstart Project	Fleming, Mr. C. M. National Park Service Big Bend National Park Big Bend Nat'l Park, TX 79834 Phone: (915)477-2251	80	09/90	821 747
SWR	BIBE	A Paleomagnetic and Isotopic Study of the Gabbro Sills Exposed at Mariscal Mountain Anticline, Big Bend National Park, TX.	Geissman, Dr. J. W. University of New Mexico Department of Geology Albuquerque, NM 87131 Phone: (505)277-4204	95	12/90	0 0
SWR	BIBE	A Plan for Providing GIS Workstations and Database Development and Support for Big Thicket National Preserve, Big Bend National Park, and Padre Island National Seashore.	Graham, Dr. L. A. Texas A&M University Department of Entomology College Station, TX 77843-2475 Phone: (303)498-1746	100	04/89	66,537 0
SWR	BIBE	Genetic Improvement of "Acer grandidentatum"	Greene, Dr. T. A. Texas Forest Service Forest Science Laboratory College Station, TX 77843-2585 Phone: (409)845-2523	20	01/96	0 1,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Survey of Black-capped Vireos in Big Bend National Park, Texas	Griffin, Mr. B. Royal Ontario Museum Department of Ornithology Toronto, Ontario M5S 2C6 Phone: (416)586-5522	100	09/89	0 800
SWR	BIBE	Preliminary Survey of Aculeate Hymenoptera in Big Bend National Park.	Griswold, Dr. T. L. Utah State University Bee Bilogy and Systematics Lab. Logan, UT 84322-5310 Phone: (801)750-2525	100	12/89	0 0
SWR	BIBE	Systematics and Evolution of Choroptera (Ephemeriptera:Leptphlebiidae)	Henry, Jr., Mr. B. C. Pan American University Department of Biology Edinburg, TX 78539-2991 Phone: (512)381-2011	100	05/89	0 0
SWR	BIBE	Distribution and Density of Scorpions in Big Bend National Park.	Henson, Dr. R. N. Appalachian State University Department of Biology Boone, NC 28608 Phone: (704)262-2677	35	00/99	0 0
SWR	BIBE	Systematics of Orasema (Hymenoptera: Eucharitidae)	Heraty, Dr. J. M. Texas A&M University Department of Entomology College Station, TX 77840 Phone:	40	12/92	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Comparative Biology and Karyotypes of East Texas and West Texas Populations of "Achurum sumichrasti" (Orthoptera: Acrididae).	Hilliard Jr., Dr. J. R. Sam Houston State University Department of Biology Huntsville, TX 77341 Phone: (409)294-1031	80	12/91	0 0
SWR	BIBE	Systematic Implications of Electrophoretic Variation in Subspecies of the White-winged Dove in the Trans-Pecos Region of Texas.	Hogan, Mr. K. Sul Ross State University Department of Biology Alpine, TX 79832 Phone: (915)837-8112	95	09/89	0 4,200
SWR	BIBE	Analysis of Eggshell Thinning and Prey Utilization by Nesting Peregrine Falcons in Big Bend National Park	Hogan, Mr. K. M. Texas A&M University Department of Biology College Station, TX 77843 Phone: (409)845-7792	100	09/89	1,000 0
SWR	BIBE	Biosystematic Study of Some Species of Stipa from Southwest United States and Northern Mexico.	Hoge, Ms. P. S. Utah State University Department of Biology Logan, UT 84322-5305 Phone: (801)750-1584	25	12/90	0 6,000
SWR	BIBE	Dipteran Fauna of Big Bend National Park, Texas.	Judd, Ms. D. Texas A&M University Department of Entomology College Station, TX 77843 Phone: (409)845-9719	20	12/94	0 225

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Lepidoptera Life History Studies of Big Bend National Park.	Kendall, Dr. R. O. Florida State Coll. of Arthropods 5598 Mt. McKinley Drive NE San Antonio, TX 78251-9609 Phone: (512)684-2518	30	00/99	0 0
SWR	BIBE	Successional Processes in Plant and Small Mammal Communities Following Fire in Big Bend National Park, Texas.	Kinucan, Dr. R. J. Sul Ross State University Division of Range Animal Science Alpine, TX 79832 Phone: (915)837-8204	5	08/89	0 400
SWR	BIBE	Fungi of Big Bend National park.	Knaphus, Dr. G. Iowa State University Department of Botany Ames, IA 50011 Phone: (515)294-2351	75	12/90	0 13,178
SWR	BIBE	Lepidoptera of Big Bend National Park	Knudson, Dr. E. C. 804 Woodstock Bellaire, TX 77401 Phone:	100	12/89	0 0
SWR	BIBE	Geochemical Study of the Mid-Cenozoic Basaltic Rocks of Big Bend National Park.	Kuentz, Dr. D. C. University of California Earth Sciences Dept. Santa Cruz, CA 95064 Phone: (408)459-4924	10	12/90	0 10,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Paleosols of the Javelina Formation	Lehman, Dr. T. M. Texas Tech University Department of Geosciences Lubbock, TX 79409-1053 Phone: (806)742-3102	80	12/89	0 5,000
SWR	BIBE	Study of Trans-Pecos Treehole Mosquito Distribution	Long, Dr. J. D. Sam Houston State University Department of Biology Huntsville, TX 77341 Phone: (409)294-1550	20	12/95	0 500
SWR	BIBE	Sedimentology and Paleoecology of a Transgressive Sandstone Complex, Late Cretaceous Aguja Formation, Trans-Pecos, Texas	Macon, Mr. C. C. Texas Tech University Department of Geosciences Lubbock, TX 79409 Phone: (806)742-3102	80	03/90	0 1,800
SWR	BIBE	Structural Geology of the Lower Dead Horse Mountains and Boquillas Canyon.	Maler, Mr. M. O. The University of Texas Department of Geology Austin, TX 78713-7909 Phone: (512)471-5172	100	06/89	0 750
SWR	BIBE	Rescue and Propagation of the Chisos Mountain Hedgehog Cactus from Alongside Rt. 12.	Miller, Mr. D. J. Chihuahuan Desert Research Inst. P.O. Box 1334 Alpine, TX 79831 Phone: (915)837-8370	50	00/99	500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Ecotourism Development Strategy: A Conceptual Framework.	Miller, Ms. F. J. Texas A&M University Dept. of Wildl.& Fisheries Sciences College Station, TX 77843-2258 Phone: (409)845-5777	15	08/90	0 26,000
SWR	BIBE	The Deposition of the Boquillas Formation of Southwest, Texas	Miller, Mr. R. University of Texas Department of Geology Box 19049 Arlington, TX 76019 Phone: (817)795-6424	20	12/90	0 500
SWR	BIBE	Peregrine Falcon Monitoring, Big Bend National Park	Moore, Ms. B. P.O. Box 173 Terlingua, TX 79852 Phone: (915)371-2489	100	09/89	6,200 0
SWR	BIBE	Pilot Demonstration of Ethnobotanical Input into the NPFLORA Data Base for the Desert Biosphere Reserves (Organ Pipe and Big Bend).	Nabhan, Dr. G. P. Desert Botanical Garden 1201 North Galvin Parkway Phoenix, AZ 85008 Phone: (602)941-1225	60	06/90	8,000 6,000
SWR	BIBE	Geochemistry of Igneous Rocks of the Big Bend National Park, Texas.	Nelson, Dr. D. O. NASA SN2 NASA/JSC Houston, TX 77058 Phone:	100	06/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	The Ecology of Juvenile Desert Amphibians: Biophysical Ecology and Population Structure.	Newman, Dr. R. A. VA Tech. & State University Department of Biology Blacksburg, VA 24061 Phone: (703)231-3817	15	09/91	0 3,000
SWR	BIBE	A Plan for Providing GIS Workstations and Database Development and Support for the National Park Service Southwest Region	O'Doherty, Dr. E. C. U.S. Forest Service 3825 East Mulberry St. Fort Collins, CO 80524 Phone: (303)498-1746	20	09/90	16,750 0
SWR	BIBE	Geochemical Study of the Cenomanian-Turonian Extinction Interval in Big Bend National Park	Orth, Dr. C. J. Los Alamos National Laboratory Isotope and Nuclear Chem. Div. Group INC-11, MS J514 Los Alamos, NM 87545 Phone: (505)667-4785	75	12/90	0 50,000
SWR	BIBE	Behavior of High Risk Mountain Lions in Big bend National Park, Texas.	Packard, Dr. J. M. Texas A & M University Dept. of Wildlife & Fisheries Sci. College Station, TX 77843-2258 Phone: (409)845-5777	50	12/90	67,785 16,773
SWR	BIBE	Evaluating the Potential Use of Landsat Thematic Mapper Digital Data for Monitoring Desertified Land in Big Bend National Park, Texas.	Parker, Ms. A. M. 2491 Sawmill Rd. #1310 Santa Fe, NM 87505 Phone: (505)988-6333	95	02/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Improving Mapping Accuracies of Vegetation Cover Types within Big Bend National Park, Texas.	Plumb, Dr. G. A. University of Oklahoma Department of Geography Norman, OK 73019 Phone: (405)325-4380	80	03/90	8,000 0
SWR	BIBE	Status Report on Festuca ligulata	Poole, Ms. J. M. Texas Parks and Wildlife Department Texas Natural Heritage Program 4200 Smith School Road Austin, TX 78744 Phone: (512)389-4363	100	09/89	300 1,400
SWR	BIBE	Survey for Sensitive Plants along Trails to be Renovated in the Chisos Mountains of Big Bend National Park.	Poole, Ms. J. M. Texas Parks and Wildlife Department Texas Natural Heritage Program 4200 Smith School Road Austin, TX 78744 Phone: (512)389-4363	100	10/89	500 200
SWR	BIBE	Propagation of Rare Plants of the Chisos Mountains of Big Bend National Park, Texas	Poole, Ms. J. M. Texas Parks & Wildlife Department 4200 Smith School Road Austin, TX 78744 Phone: (512)389-4363	10	09/92	300 720
SWR	BIBE	Revegetation, Chisos Basin New Construction.	Powell, Dr. A. M. Chihuahuan Desert Research Inst. P.O. Box 1334 Alpine, TX 79831 Phone: (915)837-8370	100	12/89	10,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Biochemical genetics and status of "Trachemys gaigeae" and of the "Trachemys scripta" complex in Texas.	Price, A. H. Texas Parks and Wildlife Department Texas Natural Heritage Program 4200 Smith School Road Austin, TX 78744 Phone:	55	12/90	0 1,000
SWR	BIBE	Insects Attacking Tamarix.	Richerson, Dr. J. V. Sul Ross State University Department of Biology Alpine, TX 79832 Phone: (915)837-8111	50	06/90	0 3,500
SWR	BIBE	An Environmental Evaluation of the Rio Grande Water Quality in the Big Bend Area.	Roberts, Ms. J. L. Sul Ross State University Department of Biology Alpine, TX 79832 Phone:	100	05/89	500 0
SWR	BIBE	Stratigraphy, Sedimentology, and Vertebrate Paleontology of Eocene Rocks, Big Bend region, Texas.	Runkel, Dr. A. C. The University of Texas Department of Geology/Paleotology Austin, TX 78712 Phone: (512)471-6088	100	11/89	0 0
SWR	BIBE	Hydrologic and Geomorphic Features of Telephone Canyon, Big Bend National Park, Brewster, Co. Texas.	Saunders, Mr. G. P. University of Texas at Austin 4910 Pelham Drive Austin, TX 78727 Phone: (512)837-4890	85	05/90	0 1,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Paleontological, Sedimentological and Paleomagnetic Investigations of the Late Cretaceous and Early Tertiary Rocks of Big Bend National Park.	Schiebout, Dr. J. A. Louisiana State University LSU Museum of Geoscience Baton Rouge, LA 70803 Phone: (504)388-6884	50	05/94	0 10,000
SWR	BIBE	Pollination Ecology of Ocotillo	Scott, Dr. P. E. The University of Texas Department of Zoology Austin, TX 78712 Phone: (512)471-7472	100	08/89	0 0
SWR	BIBE	Structural Geology of Black Peaks, Grapevine Hills, Rosillos Mountains, and Dawson Creek Regions in the Big Bend National Park, Brewster, County, Texas	Seiler, Mr. T. J. Sul Ross State University Department of Geology Alpine, TX 79832 Phone:	99	02/90	0 3,000
SWR	BIBE	A Survey for Spotted Owls in Davis, Chisos, and Sierra Del Carmen Mountains of West Texas and Northern Coahuila.	Skaggs, Dr. R. W. New Mexico State University Department of Biology Las Cruces, NM 88003-0032 Phone: (505)646-1332	100	12/89	0 1,930
SWR	BIBE	Air Quality Monitoring	Skiles, Jr., Mr. J. R. Big Bend National Park Big Bend Nat'l Park, TX 79834 Phone: (915)477-2251	0	00/99	2,500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Habitat Selection by Foliage Insectivorous Birds in Mixed Pine-Oak-Juniper Woodland	Smallwood, Mr. J. A. University of California Department of Integrative Biology 405 Hilgard Avenue Los Angeles, CA 90024-1606 Phone: (213)825-1327	40	09/91	0 12,450
SWR	BIBE	Paleontological and Geological Research on the Estufa Canyon Area of Big Bend National Park.	Stevens, Dr. M. S. Lamar University Dept. of Geology, P.O. Box 10031 Beaumont, TX 77710 Phone: (409)880-8236	75	00/99	0 1,000
SWR	BIBE	Scorpions of Texas.	Stockwell, Dr. S. A. U.S. Army RDNE Center Attn: STRNC-YMT Natick, MA 01760-5020 Phone: (508)651-4596	99	12/90	0 0
SWR	BIBE	Annotated List of the Invertebrates (excluding insects) of Big Bend National Park; Visitor Checklist of Common Insects	Van Pelt, Dr. A. F. Greensboro College Biology Professor Emeritus Greensboro, NC 27408 Phone: (919)272-7102	90	02/90	800 800
SWR	BIBE	Ecology of Mountain Lions in Big Bend National Park.	Waid, Mr. D. Texas Tech. University Range & Wildl. Sci. Box 4169 Lubbock, TX 79409 Phone: (806)742-2841	99	12/90	0 200

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BIBE	Petrified Woods of Big Bend National Park	Wheeler, Dr. E. North Carolina State University Dept. of Wood & Paper Sciences P.O. Box 8005 Raleigh, NC 27695 Phone: (919)737-3181	5	09/94	0 1,100
SWR	BIBE	Ecology and Evolution of Grassland Grasshoppers	Whitcomb, Dr. R. F. U.S. Dept. of Agriculture Agricultural Research Service Beltsville Agri. Research Center Beltsville, MD 20705 Phone: (301)344-2339	30	00/99	0 2,000
SWR	BIBE	Vegetation and Flora of the Rosillos Mountains and Vicinity, Big Bend National Park, Texas.	Whitefield, Mr. M. P. Sul Ross State University Biology Department Alpine, TX 79831 Phone: (915)877-8112	75	05/90	0 1,000
SWR	BIBE	Documentation and Analysis of Boot Canyon Permanent Plots, 1964 - 1987.	Whitson, Dr. P. D. University of Northern Iowa Department of Biology Cedar Falls, IA 50614-0421 Phone: (319)273-6034	100	04/89	3,019 2,411
SWR	BIBE	The Petrology and Geochemistry of the Government Spring Laccolith, Big Bend National park, Texas.	Yew, Mr. L. Sul Ross State University Department of Geology Alpine, TX 79831 Phone: (915)837-8259	75	12/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BITH	A plan for providing GIS Workstations and Database Development and Support for Bif Thicket National Preserve, Bif Bend National Park and Padre Island National Seashore.	Graham, L. A. Texas A&M University Department of Entomology College Station, TX 77843 Phone:	100	00/99	0 0
SWR	BITH	Testing scale dependence of models of resource competition	Harcombe, P. A. Rice University Phone: ( ) -	20	01/92	0 49,000
SWR	BITH	Demographic analysis of tree populations and the implications for forest regeneration	Harcombe, P. A. Rice University Phone: ( ) -	80	07/90	0 25,000
SWR	BITH	Air Quality Monitoring Program	McHugh, D. Big Thicket National Preserve 3785 Milam Beaumont, TX 77701 Phone: (409)839-2690	10	00/99	0 0
SWR	BITH	A Plan for Providing GIS Workstations and Database Development and Support for the National Park Service Southwest Region.	O'Doherty, E. C. Interagency Resource Tech. Lab. Fort Collins, CO Phone: ( ) -	20	09/90	0 0
SWR	BITH	Water Quality Monitoring Program	Wesloh, E. J. Big Thicket National Preserve 3785 Milam Beaumont, TX 77701 Phone: (409)839-2690	10	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	BUFF	Selection and Development of Photopoints in Fitton Cave	Huddleston, I. J. North Arkansas Community College Pioneer Ridge Harrison, AR 72601 Phone: (501)743-3000	100	05/89	0 4,500
SWR	CACA	Stable isotope study of cave waters in Carlsbad Cavern.	Chapman, J. B. Water Resources Center Desert Research Institute 2505 Chandler Ave., Suite 1 Las Vegas, NV 89120 Phone: (702)798-8882	70	12/90	0 0
SWR	CACA	Study of the Barite Crystals in Lechuguilla Cave.	Jagnow, D. H. CRF 2175 La Tierra Los Alamos, NM 87544 Phone: (505)662-0553	100	12/89	0 1,000
SWR	CACA	Evidence in support of a barrier reef model of deposition for the Capitan reef complex.	Kirkland, Ms. B. L. Louisiana State University Dept. of Geology and Geophysics Baton Rouge, LA 70803 Phone: (504)388-8328	45	12/90	0 200
SWR	CACA	Tepee structures - A comparison of Tepee structures involving Permian and Cretaceous Formations.	McDaniel, Mr. B. K. Sul Ross State University 2nd & Scott St c/o BLM Battle Mountain, NV 89820 Phone: (702)635-5101	75	07/90	0 1,055

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	CACA	Paleoecological studies on the ancient bat guano deposits of New Cave and Ogle Cav, Carlsbad Caverns National Park.	McFarlane, Dr. D. A. Natural History Museum of L.A. Co. Sec. of Mammalogy 900 Exposition Blvd. Los Angeles, CA 90007 Phone: (213)744-3369	70	12/90	0 1,000
SWR	CACA	Petrology & Geochemistry of Lechuguilla Cave.	Palmer, Mr. A. N. State University of New York Department of Earth Sciences Onenta, NY 13820-4015 Phone: (607)431-3064	7	12/00	0 0
SWR	CHIC	Geologic Evaluation of the Area Near and Including the Chickasaw National Recreation Area	Cates, S. W. U.S. Geological Survey RM. 621 Old Post Office Building 215 Dean A. McGee Avenue Oklahoma City, OK 73102 Phone: (405)231-4256	100	04/89	3,600 1,800
SWR	CHIC	Assessment of spring flow decline (Water Rights)	Pettee, Mr. C. W. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8321	0	00/99	5,500 0
SWR	GUMO	Systematics, Biogeography and Evolution of Leaf Litter Dwelling Weevils.	Anderson, Dr. R. S. Texas A&M University College Station, TX 77843 Phone: (409)845-9766	50	12/90	0 1,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	GUMO	Fairy Shrimps, Clam Shrimps, and Tadpole Shrimps of Texas	Belk, Dr. D. Our Lady of the Lake University Biology Dept. San Antonio, TX 78207-4666 Phone: (512)434-6711	100	12/89	0 1,000
SWR	GUMO	Phytophagous Insects of Baccharis pteronioides	Boldt, Mr. P. E. U.S. Dept. of Agriculture Soil & Water Res. Lab Temple, TX 76502 Phone: (817)770-6530	67	03/91	0 2,000
SWR	GUMO	Movements, Habitat Use, and Population Dynamics of Elk in Guadalupe Mountains National Park.	Carpenter, Mr. J. C. Texas A&M University College Station, TX 77840 Phone: (409)845-5777	90	03/90	14,000 12,072
SWR	GUMO	Silicification and Taphonomy in Permian Carbonates of the Southwestern United States.	Erwin, Dr. D. H. Michigan State University Dept. of Geological Sciences E. Lansing, MI 48824-1115 Phone: (517)353-6493	10	12/92	0 2,000
SWR	GUMO	Paleoecology and Roles of Calcareous Sponges in the Origin of the Capitan Limestone.	Fagerstrom, Dr. J. A. University of Colorado Dept. of Geological Sciences Boulder, CO 80309 Phone: (303)459-3266	35	06/92	0 1,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	GUMO	Aquatic Invertebrate Survey of McKittrick Canyon in Guadalupe Mountains National Park, Texas.	Green, Mr. T. M. Texas A&M University Dept. of Biology College Station, TX 77843 Phone: (915)584-2985	40	01/91	1,500 2,000
SWR	GUMO	The Bee and Stinging Wasp Fauna of Guadalupe Mountains National Park.	Griswold, Mr. T. L. U.S. Dept. of Agriculture Utah State University Logan, UT 84322 Phone: (801)750-2559	10	08/94	0 2,000
SWR	GUMO	Deep-Water Sediment Gravity Flow Deposits	Handford, Mr. C. R. Arco Oil and Gas Company 2300 W. Plano Parkway Plano, TX 75075 Phone: (214)754-6869	100	12/89	0 2,000
SWR	GUMO	Comparison of Scorpion Populations in Different Life Zones of Guadalupe Mountains National Park.	Henson, Dr. R. N. Appalachian State University Boone, NC 28608 Phone: (704)262-2677	5	12/94	0 2,000
SWR	GUMO	Mississippi Valley-Type Ore Deposits in the Guadalupe Mountains.	Hill, Ms. C. A. Box 5444A Albuquerque, NM 87123 Phone: (505)296-2705	50	01/95	0 100
SWR	GUMO	McKittrick Canyon Rainbow Trout Evaluation	Hutson, Mr. P. Texas Parks and Wildlife Dept. P.O. Box 947 San Marcos, TX 78667 Phone: (512)353-0313	15	03/93	0 5,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	GUMO	Evidence in Support of a Barrier Reef Model of Deposition for the Capitan Reef Complex.	Kirkland, Ms. B. L. Louisana State University Dept. of Geology and Geophysics Baton Rouge, LA 70803 Phone: (504)388-8328	45	06/91	0 200
SWR	GUMO	Lepidoptera of Guadalupe Mountains National Park	Knudson, Dr. E. C. 804 Woodstock Bellaire, TX 77401 Phone: (713)795-5623	30	06/93	0 1,000
SWR	GUMO	Paleobiology and Biostratigraphy of the Cutoff Formation-Guadalupe Mountains National Park, West Texas and New Mexico.	Lambert, Mr. L. L. University of Iowa Iowa City, IO 52242 Phone: (319)335-1818	10	05/90	0 1,800
SWR	GUMO	Depositional Facies and Diagenesis of Reef and Back-reef Facies in The Capitan Reef Complex, New Mexico and Texas.	Mazzullo, Dr. S. J. Wichita State University Department of Geology Wichita, KS 67208 Phone: (316)652-9430	25	01/94	0 500
SWR	GUMO	The Origin and Timing of Dolomitization of the Forereef Facies of the Permian Capitan Formation, Guadalupe Mountains, Texas-New Mexico.	Melim, Ms. L. A. Southern Methodist University Dept. of Geological Sciences Dallas, TX 75275 Phone: (214)692-2750	80	03/91	0 5,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	GUMO	Investigation, Surveillance, and Control of Plague and Other Zoonoses in Guadalupe Mountains National Park.	Moore, Mr. G. M. Texas Dept. of Public Health 6090 Surety Drive P.O. Box 10736 El Paso, TX 79997 Phone: (915)779-8014	50	06/92	0 500
SWR	GUMO	Selective Collections of Vascular Plants in the Guadalupe Mountains National Park, Texas to Determine Threatened and Endangered Species.	Powell, Dr. M. A. Sul Ross State University Dept. of Biology Alpine, TX 79832 Phone: (915)837-8112	40	12/92	0 1,500
SWR	GUMO	Geology of the Guadalupe Mountains National Park	Pray, Dr. L. C. University of Wisconsin Madison, WI 53706 Phone: (608)833-5657	0	06/61	0 1,000
SWR	GUMO	Survey of Birds in Guadalupe Mountains National Park	Wauer, Mr. B. W. National Park Service HC 60, Box 400 Salt Flat, TX 79847 Phone: (915)828-3251	100	12/89	100 0
SWR	HOSP	Investigation of Thermophyllic Photosynthetic Bacteria	Favinger, J. L. Indiana University Biology Department 3710 Fullerton Pike Bloomington, ID 47401 Phone:	50	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	HOSP	Quantification of Thermal Water Flow	Gann, E. U.S. Geological Survey 2301 Federal Building Little Rock, AR 72201 Phone: (501)378-6391	75	00/99	14,000 0
SWR	HOSP	Ostracod Inventory	Gutentag, Dr. E. U.S. Geological Survey Denver Federal Center Denver, CO 80225 Phone: (303)236-0549	40	06/90	1,000 1,250
SWR	HOSP	Survey of Fish in Hot Springs National Park	Horn, K. L. Northeast Louisiana University Dept. of Biology Garrett Hall Monroe, LA 71209 Phone: (318)342-3103	100	12/89	0 0
SWR	HOSP	Inventory of Phormidium Treleasei at Hot Springs National Park	Meyer, Dr. R. University of Arkansas Dept. of Botany & Microbiology 401 Science Engineering Building Fayetteville, AR 72701 Phone: (501)575-4901	100	12/89	0 600
SWR	HOSP	Landscape Management Plan: Bathhouse Row	Walling, L. National Park Service Denver Service Center Denver, CO Phone: (303)327-2100	100	04/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	LYJO	Phase II, Hereford Herd Management	Baker, Dr. J. F. Texas A&M University Department of Animal Science College Station, TX 77843 Phone:	100	05/90	0 2,500
SWR	PAIS	National Marine Debris Survey	Bjork, J. L. National Park Service - PAIS 9405 South Padre Island Drive Corpus Christi, TX 78418 Phone: (512)949-8173	25	09/93	5,000 0
SWR	PAIS	Analysis of Water Samples from Oil/Gas Operations	Bjork, J. L. Padre Island National Seashore 9405 South Padre Island Drive Corpus Christi, TX 78418 Phone: (512)949-8173	100	10/89	8,500 0
SWR	PAIS	Water Quality of Swimming Beaches on Padre Island National Seashore	Bjork, J. L. Padre Island National Seashore 9405 South Padre Island Drive Corpus Christi, TX 78418 Phone: (512)949-8173	100	09/89	8,500 0
SWR	PAIS	White Pelican Parasite Study/Management	Chapman, B. R. Padre Island National Seashore 9405 South Padre Island Drive Corpus Christi, TX 78418 Phone: (512)991-6810	100	01/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	PAIS	Evaluation of Vehicular Impacts from Geophysical Seismic Survey on Survival and Regrowth on Padre Island National Seashore	Drawe, Dr. L. Welder Wildlife Refuge P.O. Box 1400 Sinton, TX 78387 Phone: (512)364-2643	100	09/89	5,500 0
SWR	PAIS	Visitor Use Survey at Bird Island Basin	Gramman, J. H. Texas A&M University Dept./Recreation, Park, Tourism Sci College Station, TX 77843 Phone: (409)845-4920	100	05/89	15,000 0
SWR	PAIS	Perigrine Falcon Migration Study	Morizot, D. University of Texas M.D. Anderson Cancer Sci. Cen. P.O. Box 389 Smithville, TX 78957 Phone: (512)237-2403	0	00/99	0 100,000
SWR	PAIS	Quantification of Sediment Erosion/Deposition in the Bird Island Basin Visitor Use Are of Padre Island National Seashore	Prouty, Dr. J. S. Coastal Research Associates 9350 South Padre Island Dr. #147 Corpus Christi, TX 78418 Phone: (512)994-2436	100	09/89	14,100 0
SWR	PAIS	Kemp's Ridley Sea Turtle Restoration and Enhancement Program	Shaver, D. J. Padre Island National Seashore 9405 South Padre Island Drive Corpus Christi, TX 78418 Phone: (512)949-8173	0	00/99	10,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	PAIS	Sea Turtles in South Texas Inshore Waters	Shaver, D. J. Padre Island National Seashore 9405 South Padre Island Drive Corpus Christi, TX 78418 Phone: (512)949-8173	60	05/90	20,000 0
SWR	PAIS	Red Tide Effects on Fish and Plakton	Shaver, D. J. Padre Island National Seashore 9405 South Padre Island Drive Corpus Christi, TX 78418 Phone: (512)949-8173	100	07/89	0 0
SWR	PAIS	Vegetative History of Padre Island National Seashore	Sherrod, C. L. Horizon Environmental Service 5524 Bee Cave Road Austin, TX 78746 Phone: (512)245-2178	100	06/89	15,000 0
SWR	PAIS	Study of Freshwater Ponds in Padre Island National Seashore	Sissom, Dr. S. Southwest Texas State University Department of Biology San Marcos, TX 78666 Phone: (512)245-2178	33	09/90	6,799 0
SWR	PAIS	Analysis of Benthic Organisms Near Bird Island Basin	Wicksten, Dr. M. Texas A&M University Department of Biology College Station, TX 77843 Phone: (409)845-3388	90	01/90	0 18,000
SWR	PAIS	Computer Conversion of Incubation Program and Data.	Wood, B. 9408 Morrow Corepus Christi, TX 78410 Phone: (512)241-4406	100	09/89	15,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
SWR	PAIS	Redhead Duck Ecology	Woodin, M. U.S. Fish & Wildlife Service 6300 Ocean Drive Campus Mail Box 339/CCSU Corpus Christi, TX 78412 Phone: (512)888-3372	50	00/99	0 85,000
SWR	WUPA	Minority Studies Program	Powell, Dr. S. Northern Arizona University	100	08/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	CABR	Lichen Transplant Study	Bratt, C. C. Santa Barbara Museum Of Nat Hist 2559 Puesta Del Sol Road Santa Barbara, CA 93105 Phone: (805)682-4711	100	01/89	0 0
WR	CABR	National Status & Trends For Marine Environmental Quality	Lissner, Dr. A. L. Science Applications Intl Corp. 476 Prospect Street La Jolla, CA 92037 Phone: (619)456-7462	40	01/00	0 0
WR	CABR	Distribution And Abundance Of Intertidal Turf Algae In San Diego County	Stewart, Dr. J. G. Scripps Institute Of Oceanography Marine Biol. Bldg Rm 3405 Mail Code A-002 La Jolla, CA 92093 Phone: (619)534-4245	10	12/99	0 500
WR	CHIR	Vegetation Monitoring for Prescribed Burn Program	Anderson, R. L. National Park Service Chiricahua National Monument HCR 2, Box 6500 Willcox, AZ 85643 Phone: (602)824-3560	0	00/99	0 0
WR	CHIR	Natural Resources Monitoring Program	Bennett, P. S. NPS-Coop. Park Studies Unit University of Arizona P.O. Box 41058 Tucson, AZ 85717 Phone: Bennett	30	09/91	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	CHIR	Annotated Checklist of Vascular Plants of the Chiricahua Mountains	Bennett, Mr. P. S. NPS-Coop. Park Studies Unit University of Arizona P.O. Box 41058 Tucson, AZ 85717 Phone: (602)629-6896	30	09/91	0 0
WR	CHIR	Fourteen Years of Vegetation Change in the Madrean Oak Woodland with Special Reference to the Role of Fire in Oak Woodlands at Chiricahua National Monument and Coronado National Memorial, Arizona.	Bennett, Mr. P. S. NPS-Coop. Park Studies Unit University of Arizona P.O. Box 41058 Tucson, AZ 85717 Phone: (602)670-6896	10	09/93	0 0
WR	CHIR	Annotated Checklist of the Flora of the Chiricahua Mts., Arizona	Bennett, Mr. P. S. NPS-Coop. Park Studies Unit University of Arizona P.O. Box 41058 Tucson, AZ 85717 Phone: (602)670-6896	30	09/93	0 0
WR	CHIR	Air Quality Monitoring, IMPROVE Network, Fine Particualtes.	Beveridge, P. University of California Crocker Nuclear Lab Davis, CA 95616 Phone: (916)752-1120	0	00/99	0 0
WR	CHIR	Gypsy Moth Monitoring	Boyd, K. Ariz Ag. and Hort. Commission 1688 West Adams Phoenix, AZ 85007 Phone: (602)255-4373	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	CHIR	Gypsy Moth Monitoring	Boyd, K. Ariz Ag. and Hort. Commission 1688 West Adams Phoenix, AZ 85007 Phone: (602)255-4373	0	00/99	0 0
WR	CHIR	Air Quality Monitoring, Visibility	Dietrich, D. Air Resources Specialists, Inc. 1901 Sharp Piont Drive Suite E Fort Collins, CO 80525 Phone: (303)484-7941	0	00/99	0 0
WR	CHIR	Elemental Content of Tree Rings, Foliage and Soils	Ferenbaugh, R. W. Los Alamos National Laboratory P.O.Box 1663 Los Alamos, NM 87545 Phone: (505)667-0811	70	12/90	0 0
WR	CHIR	Analysis of Growth Trends and Variations in Conifers from Arizona	Graybill, D. University of Arizona Lab of Tree Ring Research 105 West Stadium Tucson, AZ 85721 Phone:	70	12/90	0 0
WR	CHIR	National Dry Deposition Network Monitoring	Hodges, M. Hunter/ESE Environmental Services P.O. Box 1703 Gainesville, FL 32602-1703 Phone: (904)332-3318	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	CHIR	Bibliography of Natural Resources	Horn, R. National Park Service Western Arch. Conservation Center P.O.Box 41058 Tucson, AZ 85717 Phone: (602)670-6501	30	09/91	0 0
WR	CHIR	Annotated Checklist of the Flora of the Chiricahua Mts., Arizona	Johnson, R. R. National Park Service P.O. Box 41058 1415 N. 6th Ave. Tucson, AZ 85717 Phone: (602)670-6896	0	12/90	0 0
WR	CHIR	Annotated Checklist of Birds of the Chiricahua Mountains	Johnson, Dr. R. R. National Park Service P.O. Box 41058 1415 N. 6th Ave. Tucson, AZ 85717 Phone: (602)670-6896	70	09/90	0 0
WR	CHIR	Live Fuel Moisture Monitoring Program	King, A. National Park Service Chiricahua National Monument Dos Cabezas Route, Box 6500 Willcox, AZ 85643 Phone: (602)824-3560	0	00/99	0 0
WR	CHIR	Reptiles and Amphibians of Chiricahua National Monument	Lowe, Dr. C. University of Arizona Dept of Renewable Natural Resources Tucson, AZ 85717 Phone: (602)000-0000	90	09/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	CHIR	Volcanic and Petrologic History of the Turkey Creek Caldera	Pallister, J. S. U.S. Geological Survey Office of Earthquakes and Volcanoes Box 25046, M.S. 903 Denver, CO 80225 Phone: (303)236-1023	30	12/99	0 0
WR	CHIR	Fire and Flood in a Canyon Woodland: The Effect of Floods and Debris Flows in the Past Fire Regime	Swetnam, Dr. T. W. University of Arizona Lab of Tree-Ring Research Building #58 Tucson, AZ 85721 Phone: (602)621-2112	10	12/91	1 9
WR	CHIR	Air Quality Monitoring, Visibility, Transmissometer	Tree, R. Air Resources Specialists, Inc. 1901 Sharp Point Drive Suite E Fort Collins, CO 80525 Phone: (303)484-7941	0	00/99	1 14
WR	CHIS	SRI Beach Monitoring Design Study	Davis, Mr. G. E. National Park Service Channel Islands National Park 1901 Spinnaker Drive Ventura, CA 93001 Phone: (805)644-8157	70	09/90	37,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	CHIS	Terrestrial Vegetation	Halvorson, Dr. W. L. National Park Service Channel Islands National Park 1901 Spinnaker Drive Ventura, CA 93001 Phone: (805)644-8157	80	12/92	75,350 2,000
WR	CHIS	Dudleya Traskiae Population Biology Study	Halvorson, Dr. W. L. National Park Service Channel Islands National Park 1901 Spinnaker Drive Ventura, CA 93001 Phone: (805)644-8157	95	12/89	3,000 7,700
WR	CHIS	Exotic Plant Species Control Study	Halvorson, Dr. W. L. National Park Service Channel Islands National Park 1901 Spinnaker Drive Ventura, CA 93001 Phone: (805)644-8157	90	12/90	37,350 1,000
WR	CHIS	Black Rat Control Study	Halvorson, Dr. W. L. National Park Service Channel Islands National Park 1901 Spinnaker Drive Ventura, CA 93001 Phone: (805)644-8157	95	12/90	18,500 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	CHIS	Rare Plant Species Management Study	Halvorson, Dr. W. L. National Park Service Channel Islands National Park 1901 Spinnaker Drive Ventura, CA 93001 Phone: (805)644-8157	80	12/90	4,350 1,000
WR	DEVA	Monitoring water levels of Devil's Hole	Albright, Mr. J. S. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8306	0	00/99	5,000 0
WR	DEVA	Possible insectivorous characteristics of Desert Rocknettle	Barland, B. University of Puget Sound Biology Department 1500 N. Warner Tacoma, WA 98416 Phone: (206)756-3121	10	05/91	0 0
WR	DEVA	Flora and Vegetation Analysis of the Panamint Mountains, Death Valley National Monument	Bradney, D. J. 4332 Eastern Ave. N. Seattle, WA 98103 Phone:	90	09/90	0 0
WR	DEVA	Yucca Mountain Project Environmental Radiological Monitoring Activity	Costa, C. U.S. Envtl. Protection Agency P.O. Box 93478 Las Vegas, NV 89193-3478 Phone: (702)798-2305	4	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	DEVA	An Investigation of Desert Bighorn Ecology in Death Valley	Douglas, Dr. C. L. NPS-Coop. Park Studies Unit University of Nevada Dept. of Biological Sciences Las Vegas, NV 89154 Phone: (702)739-3219	0	00/98	4,000 0
WR	DEVA	A Study of Vegetational Recovery Following Burro Removal in Death Valley National Monument	Douglas, Dr. C. L. NPS-Coop. Park Studies Unit University of Nevada Dept. of Biological Sciences Las Vegas, NV 89154 Phone: (702)739-3219	80	00/99	0 0
WR	DEVA	Thermal IR Spectral Properties of Saline Terrains	Eastes, J. W. U.S. Army Remote Sensing Division USAETL Ft. Belvoir, VA 22060-5546 Phone:	100	10/89	0 0
WR	DEVA	Biochemical Systematics of Pupfish	Echelle, A. A. Oklahoma State University Zoology Dept. Stillwater, OK 74078 Phone: (405)744-9681	20	12/92	0 0
WR	DEVA	Controls on nutrient levels in desert winter annuals	Field, C. Carnegie Institution 290 Panama St. Stanford, CA 94305 Phone: (415)325-1521	100	06/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	DEVA	Geothermal fluid genesis in the Great Basin	Flynn, T. University of Nevada Division of Earth Sciences 100 Washington St. #201 Reno, NV 89503 Phone:	85	05/90	0 0
WR	DEVA	A survey of Pilobolus from Death Valley	Foos, M. K. Indiana University East 2325 Chester Blvd. Richmond, IN 47374 Phone:	0	00/99	0 0
WR	DEVA	Lead isotope constraints on the age and origin of gold and silver mineralization in the Panamint Mountains, California	Gecy, R. Dartmouth College Dept. of Earth Sciences Hanover, NH 03755 Phone: (603)646-2373	50	09/90	0 0
WR	DEVA	Relictual populations of Great Basin invertebrates	Giuliani, D. 170 Flower Alley Big Pine, CA 93513 Phone:	65	12/96	0 0
WR	DEVA	Radar roughness/aeolian roughness	Greeley, R. Arizona State University Dept. of Geology Tempe, AZ 85287-1404 Phone: (602)965-7029	10	01/93	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	DEVA	Biogeography and water chemistry of aquatic insect habitat	Herbst, D. B. University of California Sierra Nevada Aquatic Research Lab Route 1, Box 198 Mammoth Lakes, CA 93546 Phone: (619)935-4256	25	00/99	0 0
WR	DEVA	Tectonometamorphism of the Funeral Mountains	Hoisch, T. D. Northern Arizona University Dept. of Geology Box 6030 Flagstaff, AZ 86011 Phone:	70	06/91	0 0
WR	DEVA	Uplift history of the Black Mountains crustal section, Death Valley region, California	Holm, D. K. Harvard University 24 Oxford St. Cambridge, MA 02138 Phone: (617)495-9717	60	05/90	0 0
WR	DEVA	Magnetostratigraphy of a section of Plio-Pleistocene lake sediments in the southern Confidence Hills, Death Valley, California	Kirschvink, J. L. Calif. Inst. of Technology M.S. 170-25 Pasadena, CA 91125 Phone: (818)356-6187	60	05/90	0 0
WR	DEVA	Assessing the variables that affect albedo in an arid environment	Knapp, D. E. University of Illinois Dept. of Geogr., 220 Davenport Hall 607 S. Mathews Urbana, IL 61801 Phone: (217)333-3129	20	08/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	DEVA	A Study of Vegetational Reinvasion Following the Saline Fire in Death Valley National Monument	Leary, Dr. P. J. Clark County Community College Dept. Science & Health 3200 E. Cheyenne Las Vegas, NV 89030 Phone: (702)643-6060	80	00/99	0 0
WR	DEVA	A magnetotelluric investigation of the crust in the California Basin and Range	Mackie, R. Massachusetts Inst. of Tech. Room 54-614 Cambridge, MA 02139 Phone: (617)253-1909	50	12/89	0 0
WR	DEVA	Structural and kinematic evolution of the Badwater Turtleback, Death Valley, California	Miller, M. University of Washington Dept. of Geol. Sci., AJ-20 Seattle, WA 98195 Phone:	50	05/92	0 0
WR	DEVA	Bighorn use of Quartz Spring	Raggio, V. Volunteer for Bill Dunn 30472 San Francisco Cyn. Rd. Saugus, CA 91350 Phone:	0	00/99	0 0
WR	DEVA	Aerosolic dust additions to soils in southern Nevada and southern California	Reheis, M. C. U.S. Geological Survey MS-913 Federal Center, Box 25046 Lakewood, CO 80225 Phone:	50	10/95	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	DEVA	Neogene uplift and fault history of the Black Mountains crystalline block in Death Valley, California	Serpa, L. F. University of New Orleans Dept. of Geology and Geophysics New Orleans, LA 70148 Phone: (504)286-6325	80	01/91	0 0
WR	DEVA	Paleontology of the Lower Cambrian Wood Canyon Formation, eastern California and western Nevada	Signor, P. W. University of California Dept. of Geology Davis, CA 95616 Phone: (916)752-0846	60	12/89	0 0
WR	DEVA	Tamarix Ecology in Death Valley, Lake Mead, and Petrified Forest	Smith, Dr. S. D. University of Nevada Dept. of Biological Sciences Las Vegas, NV 89154 Phone:	100	05/89	0 0
WR	DEVA	A pilot study of desert kit fox at Death Valley National Monument	Stockwell, C. University of Nevada Department of Biology Reno, NV 89557 Phone:	85	02/90	0 0
WR	DEVA	Upper Paleozoic stratigraphy of the Death Valley region	Stone, P. U.S. Geological Survey 345 Middlefield Rd. MS 975 Menlo Park, CA 94025 Phone: (415)329-4958	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	DEVA	Quaternary regional hydrology	Stuckless, J. S. U.S. Geological Survey Box 25046, MS 963 Denver Federal Center Denver, CO 80225-0046 Phone: (702)776-7886	1	12/93	0 0
WR	DEVA	Nevada Nuclear Waste Site Investigation, Yucca Mountain Project, Paleohydrology Studies	Talbot, W. R. U.S. Geological Survey M.S. 421 Box 25046, DFC Denver, CO 80225 Phone: (303)236-0463	5	01/96	0 0
WR	DEVA	Petrologic investigations of the Death Valley volcanic field	Thompson, R. A. U.S. Geological Survey Box 25046, MS 913 Denver Federal Center Denver, CO 80225 Phone:	50	09/91	0 0
WR	DEVA	Miocene evolution of the Amargosa Chaos basin, southern Death Valley, California	Topping, D. J. University of Washington Dept. of Geol. Sci., AJ-20 Seattle, WA 98195 Phone: (206)543-1996	30	12/90	0 942
WR	DEVA	Geologic map of the Funeral Mountains (Chloride Cliff 15' quad, and parts of the Big Dune and Stovepipe Wells Quads)	Troxel, B. W. 2961 Redwood Avenue Napa, CA 94568 Phone:	95	11/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	DEVA	Monitoring impact of groundwater withdrawals	Williams, Mr. O. R. NPS-Water Resources Division 301 S. Howes Street, Rm 353 Ft. Collins, CO 80521 Phone: (303)221-8301	0	00/99	0 0
WR	DEVA	Paleoclimatology and paleohydrology of the southern Great Basin	Winograd, I. J. U.S. Geological Survey National Center (432) Reston, VA 22092 Phone: (703)648-5849	60	01/94	0 0
WR	FOBO	Vegetation of Fort Bowie National Historic Site	Warren, P. L. The Nature Conservancy 300 E. University Blvd., Suite 230 Tucson, AZ 85705 Phone: (602)622-3861	80	09/90	0 0
WR	GOGA	Potential for control of an exotic weed by a native insect.	Bernays, Dr. E. A. University of California Division of Biological Control 1050 San Pablo Ave. Albany, CA 94706 Phone: (415)642-0674	75	08/90	0 35,000
WR	GOGA	Genetics of California Bay (Umbelluraria californica)	Davies, Dr. H. M. Cal Gene, Inc. 1920 Fifth St. Davis, CA 95616 Phone: (916)753-6313	100	12/89	0 100

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	GOGA	Land Use Shifts during the Protohistoric Period in Southern Marin County, California	Duncan, Ms. F. L. 726 38th Ave. San Francisco, CA 94121 Phone:	100	12/89	0 2,000
WR	GOGA	West Coast Raptor Migration	Howell, Mr. J. A. National Park Service Golden Gate NRA Fort Mason, 201 San Francisco, CA 94123 Phone: (415)556-9506	33	01/04	15,000 40,000
WR	GOGA	Molecular Population Genetics of Island Isopods	Lawson, Dr. R. Stanford University Herrin Laboratories Center for Conservation Biology Stanford, CA 94305 Phone: (415)325-9863	75	06/90	0 0
WR	GOGA	Geomorphic Investigations - Tennessee Valley, Marin County, California	Montgomery, Mr. D. R. University of California Dept. of Geology & Geophysics Berkeley, CA 94720 Phone: (415)642-9116	90	11/90	0 2,000
WR	GOGA	Marin Headland Bobcat Research Project	Oswald, Mr. B. National Park Service Golden Gate NRA Ft. Cronkhite, Bldg 1056 Sausalito, CA 94965 Phone: (415)331-3812	50	12/92	2,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	GOGA	Diet and Reproductive Performance of the Western Gull, Larus occidentalis, on Alcatraz Island.	Pierotti, Dr. R. University of Arkansas Dept. of Zoology Fayetteville, AR 72701 Phone: (501)575-6709	60	07/93	0 1,500
WR	GOGA	Macroalgal Study, Land's End	Smith, Ms. M. 750 Phelps St. San Francisco, CA 94124 Phone:	95	05/89	0 0
WR	GRBA	The Evolution of a Park: A Case Study of Great Basin National Park	Brown, Mr. P. J. Oregon State University Department of Forest Resources Corvallis, OR 97331 Phone: (503)737-2056	0	00/99	0 0
WR	GRBA	Effects of Floral Characteristics on Foraging Behavior of Pollinators	Coley, P. D. University of Utah Department of Biology 201 Biology Building Salt Lake City, UT 84112 Phone: (801)581-7088	100	06/89	0 0
WR	GRBA	Microhabitat Use by Small Rodents	Coley, P. D. University of Utah Department of Biology 201 Biology Building Salt Lake City, UT 84112 Phone: (801)581-7088	100	06/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	GRBA	Livestock Grazing Management Planning and Research	Eddleman, Mr. L. Oregon State University Department of Rangeland Resources Corvallis, OR 97331 Phone: (503)737-8434	0	00/99	0 0
WR	GRBA	Post-glaciopluvial Co-Dispersal of Truffles and Trees in the Great Basin	Fogel, Dr. R. University of Michigan Herbarium North University Building Ann Arbor, MI 48109 Phone: (313)764-5546	0	09/89	0 0
WR	GRBA	Stable Isotope Study of Water in Lehman Caves, Nevada	Ingraham, Dr. N. L. Water Resources Center Desert Research Institute 2505 Chandler Ave. Las Vegas, NV 89120 Phone: (702)798-8882	0	00/99	0 0
WR	GRBA	Alpine Flora of Great Basin National Park	Johnson, Dr. R. E. Washington State University Charles R. Conner Museum Pullman, WA 99164 Phone: (509)335-1977	90	12/90	0 0
WR	GRBA	Moths of the Great Basin National Park	Mckown, S. 1201 Avenue "K" Boulder City, NV 89005 Phone: (702)294-1062	40	05/92	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	GRBA	Ecological systems monitoring at Great Basin National Park, Nevada: phase I Baseline Water Quality Monitoring.	Metcalf, Dr. R. C. Lockheed Engineering and Sciences Environmental Programs 1050 E. Flamingo Road Las Vegas, NV 89119 Phone: (702)734-3221	95	08/90	0 0
WR	GRBA	Biogeography and Biodiversity of the Leafhoppers of the Great Basin (Homoptera:Cicadellidae).	Nielson, Dr. M. W. Brigham Young University Monte Bean Life Museum Provo, UT 84602 Phone: (801)378-6356	1	10/92	0 0
WR	GRBA	Zooplankton Community Ecology in the High Elevation Lakes of Great Basin National Park	Starkweather, Dr. P. L. University of Nevada Dept. of Biological Sciences Las Vegas, NV 89154 Phone:	50	00/99	0 0
WR	GRCA	Rock Art Investigations in the Western Grand Canyon	Allen, Ms. M. K. 181 East 200 North Washington, UT 84780 Phone: (801) -	0	00/99	0 0
WR	GRCA	Grandview and Hermit Trails Historical Research Study, Grand Canyon National Park, Arizona	Avery, Dr. V. T. Northern Arizona University Center for Colorado Plateau Studies P.O. Box 5613 Flagstaff, AZ 86011 Phone: (602)523-2562	90	03/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	GRCA	Environmental Interpretation of the Surprise Formation	Beus, Dr. S. S. Northern Arizona University Department of Geology P.O. Box 6030 Flagstaff, AZ 86011-0630 Phone: (602)523-4561	80	12/92	0 0
WR	GRCA	Ecology of Wintering Bald Eagles at Nankoweap Creek, Grand Canyon National Park	Brown, Dr. B. T. SWCA Environmental Consultants P.O. Box 3741 Tucson, AZ 85722 Phone: (602) -	0	00/99	0 0
WR	GRCA	Grand Canyon Peregrine Falcon Population Study	Brown, Dr. B. T. SWCA Environmental Consultants P.O. Box 3741 Tucson, AZ 85722 Phone: (602)327-3630	80	09/90	0 0
WR	GRCA	Pacific-Arizona Crustal Experiment - North Rim Extension	Cipar, Mr. J. Solid Earth Geophysics Division Earth Sciences U.S Air Force Geophysics Laboratory Hanscom AirForceBase, MA 01731-5000 Phone:	100	09/89	0 0
WR	GRCA	A Sedimentologic and Petrologic Study of the Walcott Member of the Late Proterozoic Chuar Group, Grand Canyon, Arizona	Cook, Mr. D. A. Northern Arizona University Department of Geology P.O. Box 6030 Flagstaff, AZ 86011-6030 Phone: (602)523-2562	50	01/91	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	GRCA	Imaging the Transition from the Colorado Plateau to the Basin and Range Provinces in North Central Arizona Using Teleseismic Tomography	Dawson, Mr. P. U.S. Geological Survey, Seismology Earthquakes, Volcanoes &Engineering 345 Middlefield Road, Mail Stop 977 Menlo Park, CA 94025 Phone:	67	06/91	0 1,900
WR	GRCA	A Survey of Pilobolus from Grand Canyon National Park	Foos, Dr. K. M. Indiana University East Department of Biology 2325 Chester Boulevard Richmond, IN 47374 Phone:	90	12/90	0 7,000
WR	GRCA	Refining Fire Prescriptions by Predicting Fuel Loading and Fuel Reduction in Ponderosa Pine at Grand Canyon National Park, Arizona	Fule, Mr. P. Northern Arizona University School of Forestry P.O. Box 4098 Flagstaff, AZ 86011-4098 Phone: (602)523-2562	40	09/90	0 0
WR	GRCA	Colorado River Flow Gaging for Glen Canyon Environmental Studies	Hart, Mr. R. J. U.S. Geological Survey Water Resources Division 2255 North Gemini Drive Flagstaff, AZ 86001 Phone: (602)527-5270	0	00/99	0 0
WR	GRCA	A Survey of Paleosols in the Grand Canyon	Holland, Dr. H. D. Harvard University Dept. of Earth & Planetary Sciences Hoffman Laboratory, 20 Oxford St. Cambridge, MA 02138 Phone: (617)495-2351	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	GRCA	Tectonic Geomorphology of the Toroweap Fault, Western Grand Canyon, Arizona	Jackson, Mr. G. University of Arizona Department of Geosciences Tucson, AZ 85721 Phone: (602)523-2562	90	03/90	0 18,000
WR	GRCA	Northern Arizona University Research on Precambrian Rocks of the Grand Canyon and the Transition from the Colorado Plateau to the Basin and Range Province.	Karlstrom, Dr. K. E. Northern Arizona University Department of Geology P.O. Box 6030 Flagstaff, AZ 86011-6030 Phone: (602)523-4561	65	06/92	0 0
WR	GRCA	Proposed Seismic Recording in the Grand Canyon National Park, Arizona	McCarthy, Dr. J. U.S. Geological Survey Earthquakes, Volcanoes, Engineering 345 Middlefield Road;Mail Stop 977 Menlo Park, CA 94025 Phone:	50	09/92	0 0
WR	HALE	Biosystematics of Gunnera (Gunneraceae) in the Hawaiian Islands.	Doyle, Dr. M. F. Rancho Santa Ana Botanic Garden 1500 North College Avenue Claremont, CA 91711 Phone: (714)625-8767	90	01/92	0 2,000
WR	HALE	Vegetation Analysis on the Wet Slope of Mount Haleakala---Island Species Distribution Patterns in Comparison to a Continental Tropical High Mountain System---	Kitayama, Mr. K. 3190 Maile Way Honolulu, HI 96822 Phone: (808)948-8044	70	12/90	0 3,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	HALE	Isozyme variation in strawberry guava.	Manshardt, Dr. R. M. University of Hawaii at Manoa St. John Plant Science Lab 102 3190 Maile Way Honolulu, HI 96822 Phone: (808)948-8044	100	10/89	500 3,000
WR	HALE	Assessment of Potential Impact of Diachasmimorpha tryoni on Non-Target Organisms	Wong, Mr. T. Agricultural Research Service P.O. Box 2280 Honolulu, HI 96804 Phone: (808)988-2158	70	12/90	0 20,000
WR	HAVO	Vesiculation of the Kilaurea Caldera lava pond of July 1974.	& Roger Dealinger, R. H. Washington University U.S. Geological Survey School of Oceanography WB-10 Seattle, WA 98195 Phone:	0	00/99	0 3,000
WR	HAVO	Plant-Ant Associations	Black, H. Brigham Young University Department of Zoology WIDB 537 Provo, UT 84602 Phone: (801)378-4553	0	00/99	0 0
WR	HAVO	Small mammals; Alien plant herbicide project	Cuddihy, Ms. L. W. Hawaii Volcanoes National Park P.O. Box 994 Volcano, HI 96785 Phone: (808)967-7737	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	HAVO	General collection / Geology-Physical Science	Dooley, R. L. Gavilan College 5055 Santa Teresa Blvd. Gilroy, CA 95020 Phone:	0	00/99	0 500
WR	HAVO	Reproductive isolation and genetic variation in two Honeycreeper Taxa	Fleischer, Mr. R. University of North Dakota Department of Biology Grand Forks, ND 58202 Phone: (701)777-3439	80	06/90	0 11,300
WR	HAVO	Patterns of host utilization and range expansion of the Mediterranean fruit fly in Hawaii Volcanoes National Park	Foote, Mr. D. University of California Department of Genetics Davis, CA 95616 Phone: (916)752-0200	50	07/90	0 10,000
WR	HAVO	Leaf Pubescence of Metrosideros polymorpha (including other morphological leaf characteristics)	Geeske, Mr. J. Stanford University Department of Biological Sciences Stanford, CA 94309 Phone: (415)725-1858	90	09/89	0 0
WR	HAVO	Adaptive Radiation in the Hawaiian spider genus, Tetragnatha	Gillespie, Ms. R. G. University of Hawaii-Manoa Department of Zoology Honolulu, HI 96822 Phone: (615)598-6146	0	00/99	0 400

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	HAVO	Isolation of Entomopathogenic Nematodes in the Hawaiian Islands	Hara, Mr. A. H. University of Hawaii Beaumont Experimental Station 461 W. Lanikaula St Hilo, HI 96720 Phone:	10	11/90	0 0
WR	HAVO	Evolutionary studies on native Hawaiian arthropods	Hoch, H. Bishop Museum Department of Entomology P.O. Box 1900-A Honolulu, HI 96817 Phone: (808)848-4165	20	00/99	0 23,000
WR	HAVO	Vesiculation of the Kilauea Caldera lava pond of July 1974	Holcomb, R. University of Washington School of Oceanography WB-10 U.S. Geological Survey Seattle, WA 98195 Phone:	0	00/99	0 3,000
WR	HAVO	Laboratory culture of (Exalloscaptomyza) caliginosa	Kaneshiro, Dr. K. University of Hawaii Hawaiian Evolutionary Biology Prog. 3050 Maile Way, Gilmore 310 Honolulu, HI 96822 Phone:	10	00/99	0 20

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	HAVO	Karyology of Rubiaceae and Gesnenaceae of the Hawaiian Islands	Kiehn, Dr. M. Bishop Museum Botany Department P.O. Box 1900-A Honolulu, HI 90817 Phone:	25	12/90	0 700
WR	HAVO	Collaborative research on the role of Myrica Faya in altering primary succession in Hawaii Volcanoes National Park. Ecosystem constraints to Myrica invasion.	Lipp, Ms. C. Hawaii Volcanoes National Park P.O. Box 994 Volcano, HI 96785 Phone: (808)967-7737	45	09/90	0 0
WR	HAVO	Control of Western yellowjacket in Haleakala & Hawaii Volcanoes National Parks to protect endemic biota	Loope, L. Haleakala National Parkota P.O. Box 369 Makawao, HI 96718 Phone: (808)572-1983	85	09/90	10,000 41,800
WR	HAVO	Control of Werstern yellowjacket in Haleakala & Hawaii Volcanoes National Parks to protect endemic biota	Loope, Dr. L. Haleakala National Park Box 369 Makawao, HI 96768 Phone: (808)572-1983	85	09/90	10,000 41,800
WR	HAVO	Ecosystem Threats Study	Loope, Dr. L. L. Hawaii Volcanoes National Park P.O. Box 994 Volcano, HI 96785 Phone: (808)967-7737	90	09/90	31,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	HAVO	Ant/Wasp Control Study	Loope, Dr. L. L. Hawaii Volcanoes National Park P.O. Box 994 Volcano, HI 96785 Phone:	60	12/90	8,000 42,600
WR	HAVO	Survey of Isozyme Variation in Strawberry Guava	Manshardt, Dr. R. M. University of Hawaii Department of Horticulture 3190 Maile Way Honolulu, HI 96822 Phone: (808)948-6063	100	10/89	500 3,000
WR	HAVO	Systematic and populational studies of Hawaiian ferns	Ranker, Mr. T. University of Hawaii at Manoa Hawaiian Evolutionary Biology Progm 3050 Maile Way, Rm 310 Honolulu, HI 96822 Phone: (808)948-8884	0	00/99	0 17,000
WR	HAVO	Methods of determination of the Paleointensities of the Earth's magnetic field	Roperch, P. Oregon State University College of Oceanography Ocean Admin. Building 104 Corvallis, OR 97331-5503 Phone:	0	00/99	0 0
WR	HAVO	The evolutionary genetics of acoustical communication in the Hawaiian swordtail cricket.	Shaw, K. Washington University Department of Biology Campus Box 1137 St. Louis, MO 63130 Phone:	10	06/92	0 11,950

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	HAVO	The evolutionary genetics of acoustical communications in the Hawaiian swordtail cricket	Shaw, K. Washington University Campus 1137 Department of Biology St. Louis, MO 63130 Phone:	10	06/92	0 11,950
WR	HAVO	Rock Collection	Sim, B. L. Telfer Gold Mine Telfer 6762 Western Australia, Australia	100	09/89	0 0
WR	HAVO	Biology of Endemic Arthropods in Hawaii (Neuroptera)	Tauber, Mr. M. J. Cornell University Department of Entomology Ithaca, NY 14853-0999 Phone:	0	00/90	0 0
WR	HAVO	Dispersal of Mediterranean Fruit Fly Using Rubidium as as Internal Physiological Marker	VanSteenwyk, Dr. R. A. University of California Dept. of Entomological Sciences 201 Wellman Hall Berkeley, CA 94720 Phone: (415)642-5565	100	10/89	0 1,000
WR	HAVO	Propagation of Touchardia latifolia Guad. by meristem culture.	Yoshina, Mr. L. H. Panaewa Rainforest Zoo 25 Aupuni St Hilo, HI 96720 Phone:	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	HOMO	Evolutionary studies on native Hawaiian arthropods: Behavioral ecology of surface-dwelling and cavernicolous planthoppers (Insecta: Homoptera: Fulgoroidea: Cixiidae, Delphacidae)	Hoch, Dr. H. Bishop Museum Department of Entomology P.O. Box 19000-A Honolulu, HI 96817 Phone: (808)847-3511	20	00/00	0 23,000
WR	JOTR	Effects of Air Pollution on Cryptogamic Crusts	Belnap, J. National Park Service 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	0 1,110
WR	JOTR	Effects of Air Pollution on Cryptogamic Crusts	Belnap, J. National Park Service 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	0 1,110
WR	JOTR	A multidimensional analysis of geographic variation in the Plain Titmouse (Parus inornatus)	Cicero, C. University of California 2444 Hilgard Ave, #5 Berkley, CA 94709 Phone:	15	04/92	0 0
WR	JOTR	Aculeale Hymenoplera (and their predators); pollination biology- especially of Lotus species	Cooper, Dr. K. W. University of California 4497 Picacho Dr. Riverside, CA 92507-4873 Phone:	10	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	JOTR	Environmental Factors Affecting the Population Dynamics of the Joshua Tree, Yucca brevifolia Engelmann	Cornett, J. W. Palm Springs Desert Museum 101 Museum Dr Palm Springs, CA 92262 Phone:	10	02/98	0 0
WR	JOTR	Butterfly Survey of Joshua Tree National Monument	Emmel, Dr. J. 26500 Rim Road Hemet, CA 92344 Phone: Emmel	65	11/93	0 0
WR	JOTR	Arachnids of Joshua Tree	Hebert, B. Calif. State Univ. Northridge 157 N. Allen Ave #2 Pasadena, CA 91106 Phone: (818)795-5170	0	00/99	0 18,000
WR	JOTR	Joshua Tree air pollution biomonitoring garden	Heuston, Mr. M. Joshua Tree NM Resource Management Division 74485 National Monument Drive Twentynine Palms, CA 92277 Phone: (619)367-7511	0	00/99	3,000 0
WR	JOTR	San Mateo Union High School District Desert Ecology Class	Holm, E. San Mateo High School 506 N. Delaware San Mateo, CA 94401 Phone:	100	00/99	25,000 0
WR	JOTR	Distribution and Abundance of Desert Tortoise in Joshua Tree National Monument	Karl, A. E. 1758 N. Academy Sanger, CA 93657 Phone: (209)875-6373	100	12/89	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	JOTR	Dynamics of the plant communities of Covington Flats	Kornoelje, T. A. 17904 Clarkdale Artesia, CA 90701 Phone:	0	00/99	0 0
WR	JOTR	A Study of Vegetational Reinvasion Following Natural Fire in Joshua Tree National Monument	Leary, Dr. P. J. Clark County Community College Dept. Science & Health 3200 E. Cheyenne Las Vegas, NV 89030 Phone: (702)643-6060	90	00/99	0 0
WR	JOTR	Theraphosidae (Tarantulas) of JTNM	Prentice, T. R. 2536 Gonzaga Ln Riverside, CA 92507 Phone:	60	12/90	0 0
WR	JOTR	Distribution of Bracheopod Shrimp in Joshua Tree	Sassaman, C. A. University of California 3570 Valencia Hill Dr Riverside, CA 92507 Phone:	50	12/90	0 0
WR	JOTR	Revisionary studies of Jerusalem crickets (Stenspelmatus)	Weissman, D. B. 15431 Francis Oaks Way Los Gatos, CA 95032 Phone:	50	00/98	1 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	LABE	Dating geomorphologic surfaces using cosmogenic helium isotopes.	Cerling, Mr. T. E. Kline Geology Laboratory Department of Geology & Geophysics P.O. Box 6666 New Haven, CT 06511 Phone:	20	07/91	0 5,000
WR	LABE	Cave invertebrate inventory and monitoring at Lava Beds National Monument.	Crawford, Mr. R. University of Washington Burke Museum (DB-10) Seattle, WA 98195 Phone: (206)543-9853	25	09/90	2,505 5,945
WR	LABE	Studies of the Brazilian Free-tailed Bat, Bat Cave, Lava Beds National Monument: Measuring Population Levels and Influencing Factors Pertaining to Brazilian Free-tailed Bats at Bat Cave.	Cross, Mr. S. P. Southern Oregon State College Department of Biology Ashland, OR 97520 Phone:	100	07/89	3,500 0
WR	LABE	Visitation Impact on Crystal Cave, Lava Beds National Monument.	Denbo, Mr. D. W. Battelle Marine Sciences Lab 1800-8 The Bluff Port Angeles, WA 98362 Phone: (206)683-4151	70	12/90	14,010 0
WR	LABE	Medicine Lake volcano (MLV)	Donnely-Nolan, Dr. J. U.S. Geological Survey, MS910 345 Middlefield Rd. Menlo Park, CA 94025 Phone: (415)329-5210	95	12/93	0 80,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	LABE	Photomonitoring of cave resources.	Frantz, Mr. B. 16345 Englewood Ave. Los Gatos, CA 95032 Phone: (408)356-8506	10	03/92	1,378 1,700
WR	LABE	Inventory and monitoring of cave-roosting bats (Plecotus townsendii).	Perkins, Mr. J. M. 5130 S.W. Idaho Portland, OR 97221 Phone: (503)244-6613	50	09/90	2,490 0
WR	LABE	Cave mapping.	Sims, Mr. M. 505 Roosevelt St. Oregon City, OR 97045 Phone: (503)796-3302	20	03/92	1,910 7,576
WR	LABE	Reconnaissance cave inventory.	Sims, Mr. M. 505 Roosevelt St. Oregon City, OR 97045 Phone: (503)796-3302	10	03/92	924 1,920
WR	LABE	Ice level monitoring.	Sims, Mr. M. 505 Roosevelt St. Oregon City, OR 97045 Phone: (503)796-3302	0	03/92	704 1,695
WR	LABE	General cave resource inventory.	Sowers, Dr. J. Cave Research Foundation 5844 San Jose Ave. Richmond, CA 94804 Phone: (415)528-6515	10	06/92	168 500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	LABE	Monitoring of speleothem breakage.	Sowers, Dr. J. Cave Research Foundation 5844 San Jose Ave. Richmond, CA 94804 Phone: (415)528-6515	20	06/92	94 80
WR	LABE	Prevalence of Lyme Borreliosis in Rodents and Ticks, Tulelake, CA.	Theis, Dr. J. University of California School of Medicine Dept. of Med. Microbio. and Immun. Davis, CA 95616 Phone: (916)752-3427	90	12/89	0 500
WR	LABE	Dust monitoring and sedimentology.	Tinsley, Mr. J. Cave Research Foundation 1040 Oakland Ave. Menlo Park, CA 94025 Phone: (415)327-2368	10	05/92	300 600
WR	LAME	Grapevine Mesa Desert Bighorn Sheep Movement Study.	Cavenaugh, R. Arizona Game and Fish Department 2222 West Greenway Road Phoenix, AZ 85023 Phone: (602)942-3000	50	10/90	0 0
WR	LAME	A Study of Desert Bighorn Movements and Habitat use in Relation to the Proposed Black Canyon Bridge (Nevada)	Douglas, Dr. C. University of Nevada Department of Biological Sciences Las Vegas, NV 89154 Phone: (702)739-3219	33	12/91	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	LAME	Development of computer simulation model of river mountain herd, Lake Mead National Recreation Area.	Douglas, Dr. C. L. NPS Coop. Park Studies Unit University of Nevada Dept. of Biology Las Vegas, NV 89154 Phone: (702)739-3219	75	00/99	0 0
WR	LAME	An Investigation of Desert Bighorn Sheep Movements in Relation to The Proposed Black Canyon Bridge Project (Arizona)	Glinski, R. 2222 West Greenway Road Phoenix, AZ 85023 Phone: (602)942-3000	10	08/91	0 0
WR	LAME	Aquatic Cover Enhancement	Haley, J. S. Nevada Department of Wildlife State of Nevada Mailroom Complex Las Vegas, NV 89158 Phone: (702)486-5127	0	00/99	0 0
WR	LAME	Food Habits and Food Resources of Bighorn in the River Mountains, Lake Mead National Recreation Area	Longshore, K. University of Nevada Dept. of Biology Las Vegas, NV 89154 Phone: (702)739-3122	80	00/99	0 0
WR	LAME	Desert Tortoise Distribution and Abundance, Lake Mead National Recreation Area.	Niles, Dr. W. University of Nevada Department of Biological Sciences Las Vegas, NV 89154 Phone:	50	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	LAME	Lake Mead Artificial Fertilization Experiment	Paulson, Dr. L. J. University of Nevada Environmental Research Center 4505 S. Maryland Parkway Las Vegas, NV 89109 Phone: (702)739-3381	85	07/90	0 0
WR	LAME	Lake Mead Cover Enhancement Project	Paulson, Dr. L. J. University of Nevada Environmental Research Center 4505 S. Maryland Parkway Las Vegas, NV 89109 Phone: (702)739-3381	100	12/89	0 0
WR	LAME	Water Quality Monitoring in Lake Mead.	Paulson, Dr. L. J. University of Nevada Environmental Research Center 4505 S. Maryland Parkway Las Vegas, NV 89109 Phone: (702)739-3381	100	12/89	0 0
WR	LAME	Trace Element Analysis of Bighorn Sheep Horns	Weigel, P. G. P.O. Box 74 Antelope, OR 97001 Phone:	100	12/89	0 0
WR	LAVO	Fungi of Lassen Volcanic National Park	Cooke, Dr. W. B. 1135 Wilshire Court Cincinnati, OH 45230 Phone: (513)231-8439	0	00/00	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	LAVO	Geoecology and Process Geomorphology of Talus and Debris Slopes in Lassen Volcanic National Park	Perez, Dr. F. L. University of Texas Department of Geography Austin, TX 78712 Phone: (512)471-5116	75	08/92	0 7,500
WR	LAVO	Forest Change in Lassen Volcanic National Park	Taylor, Dr. A. H. University of Maryland-Balt.Campus Department of Geography Baltimore, MD 21228 Phone: (301)455-3149	75	08/91	0 6,000
WR	ORPI	Monitoring impact of ground-water development	U.S. Geological Survey Arizona District	0	00/99	17,600 0
WR	ORPI	Intensive Archeological Inventory Survey of Selected Portions of Organ Pipe Cactus National Monument	Anderson, Dr. K. M. W.A.C.C. Tucson, AZ	1	08/89	0 0
WR	ORPI	Southwest Boll Weevil Eradication Program	Antilla, Mr. L. SW Boll Weevil Eradication Project P.O. Box 820 El Centro, CA 92244 Phone:	66	00/91	0 0
WR	ORPI	Land Use Trends Surrounding Organ Pipe Cactus National Monument	Brown, Mr. B. Great Western Research 1601 E. McKellips Mesa, AZ 85203 Phone: (602)962-0968	90	03/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	ORPI	Investigate and Control Accelerated Erosion	Brown, Mr. B. Great Western Research 1601 E. McKellips Mesa, AZ 85203 Phone: (602)962-0968	100	06/89	7,900 0
WR	ORPI	Monitor Mexican Urbanization and Agricultural Development	Brown, Mr. B. Great Western Research 1601 E. McKellips Mesa, AZ 85203 Phone: (602)962-0968	50	12/90	8,000 0
WR	ORPI	Study European Honey Bee Pollination	Buckmann, Dr. S. L. USDA-ARS Carl Hayden Bee Research Center 2000 East Allen Road Tucson, AZ 85719 Phone: (602)629-6709	40	12/91	0 0
WR	ORPI	Geochemistry of Arid - Zone Infiltration	Claassen, Dr. H. C. US Geological Survey, WRD Box 25046, MS 412 Denver Federal Center Denver, CO 80225 Phone:	5	00/94	0 190,000
WR	ORPI	The Effects of Variation in Seasonal Precipitation on the Clutch Size and Fledgling Success of the Greater Roadrunner, Geococcyx californianus	Cornett, Dr. J. W. Palm Springs Desert Museum P.O. Box 2288 101 Museum Drive Palm Springs, CA 92263 Phone:	16	05/92	0 3,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	ORPI	Biochemical Systematics of Pupfishes	Echelle, Dr. A. A. Oklahoma State University Dept. of Zoology Stillwater, OK 74078 Phone:	20	01/92	0 130,000
WR	ORPI	Conduct Inventory and Assessment: Non-Native Plants of Organ Pipe Cactus National Monument	Felger, Dr. R. 2003 E. 4th. Street Tucson, AZ 85719 Phone: (602)624-7888	90	08/90	9,900 0
WR	ORPI	Survey of Bacteria Associated with Necrotic Cactus Tissues	Fogleman, Dr. J. University of Denver Department of Biological Sciences Denver, CO 80208 Phone:	80	06/90	0 18,600
WR	ORPI	Investigations into the Distribution and Status of Agave schottii Engelm. var. treleasei (Toumey) K. & P. in Organ Pipe Cactus National Monument	Hodgson, Ms. W. Desert Botanical Garden 1201 N. Galvin Parkway Phoenix, AZ 85008 Phone: (602)941-1225	0	12/91	0 0
WR	ORPI	Sonoran Pronghorn Habitat Use	Hughes, Mr. K. S. AZ Coop. Fish & Wildlife Research 210 Biological Sciences East University of Arizona Tucson, AZ 85721 Phone:	75	12/89	0 30,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	ORPI	Death in Saguaro Associates	Hutto, Dr. R. L. University of Montana Division of Biological Sciences Dept. of Zoology Missoula, MT 59812 Phone: (406)243-5122	100	03/89	0 400
WR	ORPI	Special Status Avian Species at Organ Pipe Cactus National Monument.	Johnson, Dr. R. R. National Park Service P.O. Box 41058 1415 N. 6th Ave. Tucson, AZ 85717 Phone: (602)670-6896	90	12/90	0 0
WR	ORPI	Conduct Inventory and Assessment: Birds	Johnson, Dr. R. R. National Park Service CPSU/University of Arizona P.O. Box 41058 Tucson, AZ 85718 Phone: (602)629-6886	90	08/90	15,000 0
WR	ORPI	Reproductive Ecology and Natural History of Acuna Cactus, Echinomastus erectrocentrus var. acunensis	Johnson, Dr. R. A. 6519 S. Rita Lane Tempe, AZ 85283 Phone:	100	12/89	0 4,840
WR	ORPI	Ecology of Invertebrates of Organ Pipe Cactus National Monument	Kingsley, Dr. K. J. 3801 N. Swan Tucson, AZ 85718 Phone: (602)577-8639	66	09/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	ORPI	Statewide Environmental Radiation Monitoring Program	Lamb, Mr. J. E. AZ Radiation Regulatory Agency Environmental Surveillance Lab. 4814 South 40th St. Phoenix, AZ 85040 Phone:	0	00/99	0 0
WR	ORPI	Vegetation Structure and Diversity in Natural Populations at Organ Pipe Cactus National Monument, Arizona	Lowe, Dr. C. H. University of Arizona Dept. of Ecology & Evol. Biology Tucson, AZ 85721 Phone:	50	03/91	49,312 7,500
WR	ORPI	Ecology of the Amphibians and Reptiles of Organ Pipe Cactus National Monument	Lowe, Dr. C. H. University of Arizona Dept. of Ecology & Evol. Biology Tucson, AZ 85721 Phone: ( ) -	67	12/90	55,012 14,375
WR	ORPI	Population Status, Foraging Behavior and Reproductive Biology of the Leafcutting Ant, Atta mexicana	Mintzer, Dr. A. C. 1550 S. Marmora Tucson, AZ 85713 Phone: (602)624-6283	70	00/99	0 6,600
WR	ORPI	Genetic and Morphological Studies of the Desert Pupfish, Cyprinodon macularius.	Mitton, Dr. J. B. University of Colorado 122 Ramaley Campus Box 334 Boulder, CO 80309 Phone: (303)492-8956	50	07/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	ORPI	Pilot Demonstration of Ethnobotanical input into the NPFLORA Data Base for the Desert Biosphere Reserves (Organ Pipe and Big Bend)	Nabhan, Dr. G. P. Desert Botanical Garden 1201 N. Galvin Parkway Phoenix, AZ 85008 Phone: (602)941-1225	80	06/90	8,000 5,500
WR	ORPI	Conduct Inventory and Assessment: Small Mammals	Petryszyn, Dr. Y. University of Arizona 3018 N. Edith Blvd. Tucson, AZ 85716-1605 Phone: (602)621-7291	90	07/90	9,500 0
WR	ORPI	Research: Leptonycteris sanborni	Petryszyn, Dr. Y. University of Arizona 3028 N. Edith Blvd. Tucson, AZ 85716-1605 Phone: (602)621-7291	0	07/90	0 0
WR	ORPI	Special Status Plants - Organ Pipe Cactus National Monument	Ruffner, Dr. G. A. 212 S. Marina Prescott, AZ 86303 Phone: (602)258-1724	75	09/90	20,297 0
WR	ORPI	Ecology of Feral and Africanized Honey Bees in Organ Pipe Cactus National Monument	Schmidt, Dr. J. O. Carl Hayden Bee Research Center USDA - ARS 2000 E. Allen Rd. Tucson, AZ 85719 Phone:	50	09/91	0 3,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	ORPI	A Study of the Effects of Climate Change, Mountain Range Elevation, and Drainage Basin Lithology on the Formation of Alluvial Fans in Organ Pipe Cactus National Monument, Arizona	Simpson, Mr. D. T. University of New Mexico Dept. of Geology, Northrop Hall Albuquerque, NM 87131 Phone: (505)277-3214	40	09/90	0 10,350
WR	ORPI	A Study of the Occurrence and Habitat Utilization of Rothschildia cincta (Tepper) (Saturniidae:Lepidoptera) in OPCNM	Tuttle, Mr. J. P. The Lepidopterists' Society 3838 Fernleigh Ave. Troy, MI 48083 Phone: (313)689-6687	50	01/90	0 0
WR	ORPI	Further Packrat Midden Studies in Organ Pipe Cactus National Monument	Van Devender, Dr. T. R. Arizona-Sonora Desert Museum 2021 N. Kinney Road Tucson, AZ 85743 Phone: (602)883-1380	100	07/89	0 4,141
WR	ORPI	Study Boundary Vegetation Patterns	Warren, Mr. P. L. The Arizona Nature Conservancy 300 E. University Blvd. Suite 230 Tucson, AZ 85705 Phone: (602)622-3861	90	09/90	27,000 0
WR	ORPI	Investigate Ecosystem Recovery from Past Cattle Grazing	Warren, Mr. P. L. The Arizona Nature Conservancy 300 E. University Blvd. Suite 230 Tucson, AZ 85705 Phone: (602)622-3861	90	09/90	10,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PEFO	Plant Biostratigraphy and Upper Triassic Paleoclimatology of Petrified Forest National Park, Arizona	Ash, Dr. S. R. Weber State College Dept. of Geology Ogden, UT 84408-2507 Phone: (801)626-6908	50	00/99	0 0
WR	PEFO	Ambient Air Quality Monitoring	Bowman, Mr. C. B. National Park Service Petrified Forest National Park P.O. Box 217 Petrified Forest NP, AZ 86028 Phone: (602)524-6228	0	00/99	0 0
WR	PEFO	Astragalus xiphoides (Gladiator Milk Vetch) Survey	Bowman, Mr. C. B. National Park Service Petrified Forest National Park P.O. Box 217 Petrified Forest NP, AZ 86028 Phone: (602)524-6228	25	00/99	0 0
WR	PEFO	Control of salt cedar (Tamarix ramossisima) in Petrified Forest National Park	Bowman, Mr. C. B. National Park Service Petrified Forest National Park P.O. Box 217 Petrified Forest NP, AZ 86028 Phone: (602)524-6228	75	09/90	0 0
WR	PEFO	Volcanic hazard studies for the Yucca Mountain Project	Crowe, B. Los Alamos Yucca Mountain Project Suite 860 101 Convention Center Drive Las Vegas, NV 89109 Phone:	60	09/95	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PEFO	Lichens of the Petrified Forest National Park	Davis, Mr. W. C. Arizona State University Botany Department Tempe, AZ 85287 Phone: (602)965-7735	30	06/91	0 2
WR	PEFO	Ecology and Social Behavior of Gunnison's Prairie Dogs	Hoogland, Dr. J. L. University of Maryland Appalachian Environmntl. Laboratory Forstburg, MD 21523 Phone: (301)689-3115	15	06/95	0 0
WR	PEFO	Palynostratigraphy of fossil vertebrate sites, Petrified Forest National Park, Arizona	Litwin, Dr. R. J. U.S. Geological Survey MS 970 National Center Reston, VA 22092 Phone: (703)648-5284	0	00/99	0 0
WR	PEFO	Chalcedony Park: A History of Arizona's Petrified Forest	Lubick, Dr. G. M. Northern Arizona University History Department Box 6023 Flagstaff, AZ 86011 Phone:	95	05/90	0 0
WR	PEFO	Stratigraphic Micropaleontology of the Petrified Forest Member of the Chinle Formation, Petrified Forest National Park, Arizona.	Lucas, Dr. S. K. New Mexico Museum of Natl. History P.O. Box 7010 Albuquerque, NM 87194-7010 Phone: Lucas	40	09/90	1 5

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PEFO	Kookopolo Project	Malotki, Dr. E. Northern Arizona University Department of Modern Languages Box 6004 Flagstaff, AZ 86011 Phone: (602)779-2033	5	08/92	0 0
WR	PEFO	Surface polish study of suspected gastroliths	Manley, Dr. K. Los Alamos National Laboratory 4691 Ridgeway Drive Los Alamos, NM 86544 Phone: (505)662-6163	75	12/90	0 0
WR	PEFO	Vertebrate microfossils, biostratigraphy and paleoecology of the Chinle Formation, Petrified Forest National Park, Arizona	Murry, Dr. P. A. Tarleton State University Department of Physical Sciences Stephenville, TX 76402 Phone:	50	05/90	0 0
WR	PEFO	Termite Fossils in Petrified Logs from the Early Mesozoic	Myles, Dr. T. G. University of Arizona Department of Entomology Tucson, AZ 85721 Phone: (602)621-1151	50	12/90	0 0
WR	PEFO	Depositional Environments and paleogeomorphology of fossil accumulations in the Upper Triassic Chinle Formation, Petrified Forest National Park.	Parrish, Dr. J. M. Northern Illinois University Department of Biological Sciences DeKalb, IL 60115 Phone: (815)753-3200	50	09/91	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PEFO	Paleoclimatic data obtained from growth rings in fossil trees, Chinle Formation, Petrified Forest National Park	Parrish, Dr. J. T. University of Arizona Department of Geosciences Tucson, AZ 85721 Phone: (602)621-4595	25	08/90	0 0
WR	PEFO	Neutron Activation Study of Petrified Wood	Weigand, Dr. P. C. Museum of Northern Arizona Anthropology Department Route 4 Box 720 Flagstaff, AZ 86001 Phone: (602)774-5211	30	12/91	0 0
WR	PEFO	Geochemistry, sedimentology and clay minerology of the upper Petrified Forest Member paleosols, Petrified Forest National Park, Arizona	Zuber, Mr. D. Northern Arizona University Geology Department Flagstaff, AZ 86011 Phone:	90	04/90	0 0
WR	PORE	Pinnipeds of Point Reyes Peninsula. Biomonitoring of Harbor seals and northern elephant seal populations at Point Reyes.	Allen, Ms. S. G. Point Reyes Bird Obsevatory 4990 Shoreline Highway Stinson Beach, CA 94970 Phone: (415)868-1221	0	00/00	0 0
WR	PORE	Song dialects and social interaction in white-crowned sparrows	Baptista, Dr. L. F. California Academy of Sciences Dept of Ornithology & Mammalogy Golden Gate Park San Francisco, CA 94118 Phone: (415)750-7176	0	00/00	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PORE	The effects of defoliation by the western Tussock Moth (Orgyia vetusta) on the yellow bush lupine (Lupinus arboreus)	Bentley, Dr. B. State University of New York Dept. of Ecology & Evolution Stony Brook, NY 11794 Phone: (516)632-8589	100	08/89	0 80,000
WR	PORE	Planktonic and benthic invertebrates and algae of Tomales Bay.	Brumbaugh, Dr. J. H. Sonoma State University Dept of Biology Rohnert Park, CA 94928 Phone: (707)539-2219	0	00/00	0 200
WR	PORE	Intrusive Geochronology	Champion, Dr. D. W. U.S. Geological Survey 345 Middlefield Rd Menlo Park, CA 94025 Phone: (415)329-4671	30	00/00	0 0
WR	PORE	The study of preservation of the zoogeographical history of the fossil mammals on the Point Reyes Peninsula.	Chan, Dr. G. L. College of Marin Biology Department Kentfield, CA 94094 Phone: (415)485-9537	0	00/00	0 1,100
WR	PORE	Autocological and population study of Chorizanthe valida, the Sonoma spineflower.	Davis, Mr. L. Sonoma State University Biology Department Rohnert Park, CA 94928 Phone: (707)664-2189	0	00/00	0 200

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PORE	Recovery and necropsy of marine mammal carcasses in and near Point Reyes National Seashore	Deiter, Id. R. L. 288 Mesa Rd P.O. Box 1039 Bolinas, CA 94924 Phone: (415)868-2129	60	12/95	0 12,000
WR	PORE	Baseline collection of Point Reyes peninsula marine plants.	Dickey, Ms. K. University of California Herbarium 6701 San Pablo Ave. Oakland, CA 94702 Phone: (415)642-6019	20	09/92	0 50
WR	PORE	Genetic, environmnetal and maternal influences on grasshopper life histories.	Dingle, Dr. H. University of California Department of Entomology Davis, CA 95616 Phone: (916)752-2480	50	12/91	0 50,000
WR	PORE	Biology and host-plant selection of Colletes fulgidus, more particularly pre-adult imprinting to host-flower odors in nest provisions.	Dobson, Dr. H. E. University of California Dept of Integrative Biology Berkeley, CA 94720 Phone: (415)841-8920	60	09/92	0 500
WR	PORE	Plants as indicators of contact: shifts in land use during the protohistoric period in southern Marin County, California.	Duncan, Ms. F. L. Mesa Verde National Park Box 68 Mesa Verde, CO 81330 Phone:	20	12/90	0 2,300

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PORE	Mountain Beaver Ecology and Distribution	Fellers, Dr. G. M. National Park Service Point Reyes National Seshore Point Reyes, CA 94956 Phone: (415)663-8522	60	12/92	0 200
WR	PORE	Big-eared bat ecology	Fellers, Dr. G. M. National Park Service Point Reyes National Seshore Point Reyes, CA 94956 Phone: (415)663-8522	25	03/92	0 250
WR	PORE	Movement of the San Andreas Fault	Galehouse, Dr. J. S. San Francisco State University Geology Department San Francisco, CA 94132 Phone:	0	00/00	0 1,450
WR	PORE	Biomonitoring of landbird populations	Geupel, Dr. G. R. Point Reyes Bird Observatory 4990 Shoreline Highway Stinson Beach, CA 94970 Phone:	0	00/00	0 20,000
WR	PORE	Population dynamics of coastal scrub landbirds	Geupel, Dr. G. R. Point Reyes Bird Observatory 4990 Shoreline Highway Stinson Beach, CA 94970 Phone:	0	00/00	0 30,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PORE	Vegetation Patterns in Grasslands of Redwood National Park	Grenier, K. H. Redwood National Park P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	100	12/89	250 13,000
WR	PORE	Successional and seasonal variation of the central and northern California rocky intertidal communities as related to natural and human-induced disturbances.	Hardin, Mr. D. Moss Landing Marine Labs P.O. Box 450 Moss Landing, CA 93950 Phone: (408)755-8658	0	00/00	0 200,000
WR	PORE	The role of fog-drip in ground water recharge on the Point Reyes Peninsula	Ingram, Mr. N. University of California Department of Geology Davis, CA 95616 Phone: (916)752-0179	0	00/00	0 700
WR	PORE	Geochemical Analysis of California Oils	Kennicutt II, Mr. M. C. Texas A & M University 10 S. Graham Rd. College Station, TX 77840 Phone: (409)690-0095	40	12/90	0 0
WR	PORE	Ecological studies of Lyme Disease at Point Reyes National Seashore.	Lane, Dr. R. S. University of California Department of Entomology 201 Wellman Hall Berkeley, CA 94720 Phone: (415)642-4385	0	00/00	0 500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	PORE	Pinewood nematode and pitch canker survey 81-501	McCartney, W. O. 9201 Thilow Drive Sacramento, CA 95826 Phone: (916)363-6360	0	00/00	0 209
WR	PORE	Investigations of the late Quaternary slip rate of the northern San Andreas fault in Marin County.	Niemi, Ms. T. M. Stanford University Geology Department Stanford, CA 94305 Phone: (415)723-4754	65	12/90	0 15,000
WR	PORE	Snowy plover populations at Point Reyes National Seashore.	Page, Mr. G. Point Reyes Bird Observatory 4990 Shoreline Highway Stinson Beach, CA 94970 Phone: (415)868-1221	90	12/89	0 2,100
WR	PORE	An assessment of the Point Reyes Region as a bald eagle translocation site.	Roemer, Mr. G. W. Institute for Wildlife Studies P.O. Box 127 Arcata, CA 95521 Phone: (707)822-4258	100	01/90	19,240 0
WR	PORE	Malaria prevalence in an island bird population	Super, P. E. University of California Wildlife and Fisheries Biology Davis, CA 95616 Phone: (916)752-3355	45	03/90	0 800
WR	PORE	Evolution of self-incompatibility systems of Armeria maritima.	Verkemans, Dr. X. Universite Libre de Bruxelles Jardin Experimental J. Massart 1850 Ch. de Wavre 1160 Brussels, Belgium	0	00/00	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	MPS$/Other$
WR	PORE	Stratigraphic investigations of chert in the Miocene Monterey Formation.	White, Dr. L. U.S. Geological Survey 345 Middlefield Rd MS 144 Menlo Park, CA 94025 Phone: (415)329-4004	100	12/89	0 100
WR	REDW	Monitoring of rare, threatened, and endangered plant species at Redwood National Park.	Eicher, Ms. A. L. Redwood National Park P.O. Box 7 219 Hilton Road Orick, CA 95555 Phone: (707)488-2911	0	00/00	3,000 0
WR	REDW	Long-term monitoring and the effects of prescribed fire on Bald Hills and coastal prairies, Redwood National Park	Hektner, Ms. M. M. Redwood National Park P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	50	00/00	20,000 0
WR	REDW	Redwood Creek Estuary Planning and Monitoring	Hofstra, Mr. T. D. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	50	01/99	74,000 0
WR	REDW	Bear Habitat Use and Movement Patterns	Hofstra, Mr. T. D. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	50	10/95	2,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	REDW	Roosevelt elk research	Hofstra, Mr. T. D. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	20	00/00	60,000 0
WR	REDW	Landslide and Stream Erosion Control Studies in Redwood National Park	Klein, Mr. R. D. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	50	09/95	35,000 0
WR	REDW	Monitoring and Evaluation of Lost Man Creek Dam Removal.	Ozaki, V. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	50	09/91	4,200 0
WR	REDW	Long Term Monitoring of Channel Changes in Redwood Creek	Ozaki, V. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	50	01/99	15,000 0
WR	REDW	Soil survey, Redwood Creek Area, Redwood National Park	Popenoe, Mr. J. H. Redwood National Park P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	95	12/90	30,000 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	REDW	Soil survey, Prairie Creek Area, Redwood National Park	Popenoe, Mr. J. H. Redwood National Park P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	10	12/94	4,000 0
WR	REDW	Soil survey of Little Bald Hills area, Redwood National Park	Popenoe, Mr. J. H. Redwood National Park P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	75	12/91	5,000 0
WR	REDW	Field trials of compost for revegetation of subsoil in Redwood National Park	Popenoe, Mr. J. H. Redwood National Park P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	95	07/90	2,000 0
WR	REDW	Dependence of Marbled Murrelets on Old-Growth Redwoods	Ralph, Mr. C. J. U.S. Forest Service Redwood Sciences Laboratory 1700 Bayview Drive Arcata, CA 95521 Phone: (707)822-3691	50	10/90	14,000 160,050
WR	REDW	Variation in Annual Acorn Production in the Oregon White Oak (Quercus garryana) Woodlands of Redwood National Park.	Reed, Ms. L. J. National Park Service Redwood National Park - SOC P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	60	12/90	500 2,050

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	REDW	Vegetation Sampling in Oregon White Oak (Quercus garryana) Woodlands	Reed, Ms. L. J. National Park Service Redwood National Park - SOC P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	70	00/00	6,000 0
WR	REDW	Aging and Mapping of Coastal Bluff Vegetation	Reed, Ms. L. J. National Park Service Redwood National Park - SOC P.O. Box 7 Orick, CA 95555 Phone: (707)488-2911	50	12/99	0 0
WR	REDW	Air Quality and Visibility Monitoring	Sacklin, Mr. J. A. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	20	12/99	9,000 3,000
WR	REDW	Rehabilitation Documentation and Evaluation	Sonnevil, Mr. R. A. National Park Service Redwood National Park 1125 16th Street Arcata, CA 95521 Phone: (707)822-7611	55	09/99	15,000 0
WR	REDW	Coyote Abundance and Food Habits	Steinberg, Ms. S. L. National Park Service Redwood National Park 1125 16th Street Arcata, CA 95521 Phone: (707)822-7611	65	06/91	25,000 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	REDW	Land Use Monitoring and Timber Harvest Reviews in the Park Protection Zone	Weaver, Mr. W. E. National Park Service Redwood National Park 1125 16th Street, Room 212 Arcata, CA 95521 Phone: (707)822-7611	60	09/99	10,000 0
WR	SAGU	Effects of air pollution on cryptogamic crusts	Belnap, Ms. J. Canyonlands NP 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	0 0
WR	SAGU	Effects of air pollution on cryptogamic crusts	Belnap, Ms. J. Canyonlands National Park 125 W. 2nd So. Moab, UT 84532 Phone: (801)259-7164	90	11/90	0 0
WR	SAGU	Establishment of long term monitoring plots in saguaro cactus.	Duriscoe, Mr. D. Eridanus Research 42403 Sierra Dr. Three Rivers, CA 93271 Phone: (209)561-4051	70	06/90	0 0
WR	SAGU	Potential impacts of house cats on wildlife in Saguaro National Monument.	Goldsmith, Dr. A. University of Arizona School of Renewable Nat. Resources Tucson, AZ 85721 Phone: (602)621-7265	90	05/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SAGU	Ecology of desert tortoises in Saguaro National Monument	Goldsmith, Dr. A. University of Arizona School of Renewable Nat. Reources Tucson, AZ 85721 Phone: (602)621-7265	60	01/91	148 0
WR	SAGU	Late Cretaceous paleomagnetism of the Tucson Mountains, Pima County, Arizona	Hagstrum, Dr. J. T. U.S. Geological Survey 345 Middlefield Rd., MS 937 Menlo Park, CA 94025 Phone: (415)329-4672	60	09/90	0 0
WR	SAGU	Desert Mule Deer and Javelina Movement Studies	Krausman, Dr. P. R. University of Arizona School of Renewable Nat. Resources Tucson, AZ 85721 Phone: (602)621-3845	75	05/90	0 0
WR	SAGU	Impact of Exotic Cavity-nesting birds on native cavity-nesting birds in Saguaro National Monument	Mannan, Dr. R. W. University of Arizona School of Renewable Nat. Resources Tucson, AZ 85721 Phone: (602)621-7283	100	12/89	8,000 0
WR	SAGU	A comparative study of the relationship between morphology and locomotion in iguanid lizards	Miles, Dr. D. B. Ohio University Department of Zoology Athens, OH 45701 Phone: (614)593-2317	70	08/91	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SAGU	Residents Survey-Saguaro National Monument	Shaw, Dr. W. W. University of Arizona School of Renewable Nat. Reources Tucson, AZ 85721 Phone: (602)621-7265	10	09/91	0 0
WR	SAGU	Wildlife Relationships: synthesis and analysis, Saguaro National Monument	Shaw, Dr. W. W. University of Arizona School of Renewable Nat. Resources Tucson, AZ 85721 Phone: (602)621-7265	10	03/91	0 0
WR	SAGU	Breeding biology of purple martins in saguaro cacti.	Stutchbury, Ms. B. J. Yale University Department of Biology New Haven, CT 06511 Phone: (203)432-3794	100	08/89	0 0
WR	SAGU	Combined phytogram and dendrochronological monitoring of tree growth in response to pollution.	Telewski, Dr. F. W. University of Arizona Laboratory of Tree Ring Research Tucson, AZ 85721 Phone: (602)621-6466	50	10/90	0 0
WR	SAGU	Flora of the Tucson Mountains with emphasis on Tucson Mountain District, Saguaro National Monument.	Van Devender, Dr. T. R. Arizona-Sonora Desert Museum 2021 N. Kinney Rd. Tucson, AZ 85743 Phone: (602)883-1380	60	03/91	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SAMO	Operate Cooperative Wildfire Data Center	Plantrich, Mr. R. F. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	10	09/99	18,300 0
WR	SAMO	Monitor Cliff Nesting Raptors	Plantrich, Mr. R. F. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	20	09/99	8,900 600
WR	SAMO	Identify Critical Habitat	Plantrich, De. R. F. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	60	06/90	27,660 0
WR	SAMO	Initiate Geographic Information System	Rose, Mr. P. W. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	10	09/99	21,826 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SAMO	Monitor Air Quality	Seacord, Mr. M. R. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	10	09/99	19,503 0
WR	SAMO	Determine Rainfall Distribution	Seacord, Mr. M. R. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	60	09/91	8,835 0
WR	SAMO	Monitor Water Resources	Seacord, Mr. M. R. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	20	09/99	12,300 0
WR	SAMO	Conduct Endangered and Rare Plant Study	Thomas, Mr. T. W. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	11	09/99	10,933 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SAMO	Restore Valley Oak Savana Complex	Thomas, Mr. T. W. National Park Service Santa Monica Mountains NRA 30401 Agoura Road Agoura Hills, CA 91301 Phone: (818)597-1036	11	10/99	12,596 0
WR	SEKI	The Biogeography and disturbance history of Sequoiadendron giganteum within Sequoia, Kings Canyon and Yosemite National Parks, California.	Anderson, Dr. R. S. Northern Arizona University Bilby Research Center P.O. Box 6013 Flagstaff, AZ 86011 Phone:	60	08/91	48,200 20,605
WR	SEKI	Biosystematics of Raillardella (Asteraceae)	Baldwin, Mr. B. G. University of California Department of Botany Davis, CA 95616 Phone: (916)752-0617	70	12/90	0 2,000
WR	SEKI	Cartography of Lilburn Cave	Bosted, Dr. P. E. S.L.A.C. Box 4349 Bin 44 Stanford, CA 94309 Phone: (415)366-5061	75	12/93	0 5,000
WR	SEKI	Air Pollution Effects on Pine Trees	Bowers, Mr. K. J. University of California Crocker Nuclear Lab Air Quality Group Davis, CA 95616 Phone:	100	10/89	0 1,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SEKI	Late Quaternary vegetational history of the Southern Sierra Nevada.	Cole, Dr. K. Indiana Dunes National Lakeshore 1100 N. Mineral Springs Rd. Porter, IN 46304 Phone: (219)926-7561	75	12/90	0 10,000
WR	SEKI	Butterflies found in Sequoia and Kings Canyon National Parks in the southern Sierra Nevada, California.	Davenport, Mr. K. Natural History Museum of LA County 900 Esposition Blvd. Los Angeles, CA 90007-4057 Phone:	50	05/99	0 250
WR	SEKI	Studies On The Effect Of Ozone Air Pollution On Pines	Duriscoe, Mr. D. M. Eridanus Research Associates 42403 Sierra Drive Three Rivers, CA 93271 Phone: (209)561-4051	30	06/90	0 6,000
WR	SEKI	Effects Of Ozone Of Giant Sequoia Saplings And Trees: Histological and Histochemical Approaches	Evans, Dr. L. S. Lance S. Evans Inc. 14 Spring Street Tarrytown, NY 10591 Phone: (914)631-2519	15	09/90	30,000 0
WR	SEKI	A morphological and anatomical study of leaf development in chamise	Garner, Mr. D. T. University of California Department of Biology Fresno, CA 93740-0073 Phone: (209)432-5531	15	12/90	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SEKI	Do Spatial Patterns Of Understanding Vegetation In Giant Sequoia-Mixed Conifer Stands Vary After A Fire?	Gebauer, Ms. S. B. Duke University Botany Department 139 Biosci Bldg Durham, NC 27708 Phone: (916)684-6564	60	06/90	4,300 900
WR	SEKI	Resources Inventory / Geographic Information System for Sequoia and Kings Canyon National Parks	Graber, Dr. D. M. National Park Service Sequoia & Kings Canyon NP Three Rivers, CA 93271 Phone: (209)565-3341	50	9 /94	96,800 6,700
WR	SEKI	Long-term climate variation in the southern Sierra Nevada as reconstructed from tree rings	Graumlich, Dr. L. University of Arizona Tree-Ring Lab Tucson, AZ 85721 Phone: (602)621-6465	30	10/90	0 3,340
WR	SEKI	Physiological effects of atmospheric ozone on giant sequoia.	Grulke, Dr. N. E. USDA Forest Service PSW Forest & Range Experiment Sta. 4955 Canyon Crest Dr. Riverside, CA 92507 Phone: (714)276-6749	50	04/90	36,797 47,514
WR	SEKI	Fire Effects in Blue Oak Woodland of the Southern Sierra Nevada	Haggerty, Ms. P. K. National Park Service P.O. Box 301 Ash Mountain Three Rivers, CA 93271 Phone: (209)565-3341	50	06/90	300 1,500

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SEKI	Investigation of the Hydrology of Redwood Canyon Karst	Hess, J. W. Cave Research Foundation Desert Research Institute 2505 Chandler Ave., #1 Las Vegas, NV 8120 Phone: (702)798-8882	50	12/92	0 1,000
WR	SEKI	Determination of lithospheric structure of the southern Sierra Nevada from teleseismic arrival times.	Jones, Mr. C. California Institute of Technology Seismological Laboratory 252-21 Pasadena, CA 91125 Phone:	80	11/90	0 23,000
WR	SEKI	Tule elk and mule deer seasonal and diet activity patterns	McCullough, Mr. D. R. University of California Dept. of Forestry & Resource Mgmt. 145 Mulford Hall Berkeley, CA 94720 Phone:	80	08/90	0 19,590
WR	SEKI	Effects of atmospheric deposition on the ecosystems of Sequoia and Kings Canyon National Parks. Ecological impact on aquatic habitats.	Melack, Dr. J. M. University of California Dept. of Biological Sciences and Marine Science Institute Santa Barbara, CA 93106 Phone: (805)961-3879	90	06/91	7,000 100,000
WR	SEKI	High Country Wasps	Menke, Dr. A. S. Systematic Entomology Lab., USDA c/o U.S. National Museum Washington, D.C. 20560 Phone: (202)382-1803	0	08/99	0 450

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SEKI	Geology of Sequoia and Kings Canyon National Parks	Moore, Dr. J. G. U.S. Geological Survey 345 Middlefield Rd MS-910 Menlo Park, CA 94025 Phone:	65	06/92	0 1,000
WR	SEKI	Magnetotelluric Investigation of Central California	Park, Dr. S. University of California Inst. Geophysics & Planetary Phys Riverside, CA 92521 Phone: (714)787-343	80	02/90	0 42,000
WR	SEKI	Fire ecology of giant sequoia	Parsons, Dr. D. J. National Park Service Sequoia/Kings Canyon National Parks Three Rivers, CA 93271 Phone: (209)565-3341	50	12/91	17,000 0
WR	SEKI	Ozone Impacts on Photosynthesis in Jeffrey Pine	Patterson, Mr. M. T. Univeristy of California - LA Department of Biology and L.B.E.S. Los Angeles, CA 90024 Phone:	90	10/89	3,300 0
WR	SEKI	Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem	Piirto, Dr. D. D. California Polytech. State Univ. Natural Resources Mgmt. Dept. San Luis Obispo, CA 93407 Phone: (805)756-2968	40	12/91	36,547 14,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SEKI	Post-fire Vegetation Extablishment In Chaparral: The Effects Of Fire Intensity	Rice, Mr. S. Duke University Botany Department Durham, NC 27706 Phone: (919)684-2166	80	04/90	500 2,850
WR	SEKI	Effects of Prescribed Burning in Forest Floor Fuels at the Bases of Giant Sequoia Trees.	Sackett, Mr. S. S. USDA-Forest Service Riverside Forest Fire Laboratory 4955 Canyon Crest Dr. Riverside, CA 92507 Phone: ( ) -	25	11/92	5,000 26,000
WR	SEKI	Volcanic Eruptive Chronologies From Temperature Sensitive trees	Scuderi, Dr. L. Boston University Department of Geography 675 Commonwealth Ave Boston, MA 02215 Phone: (617)353-5985	10	09/91	0 4,000
WR	SEKI	Pedologic studies in relation to soil climate	Southard, R. J. University of California Dept. Land, Air & Water Resources Davis, CA 95616 Phone: (916)752-7041	30	10/89	0 15,000
WR	SEKI	A First Inventory of the Bryophytes of Sequoia and Kings Canyon National Parks	Steen, Mr. A. University of California Biomedical & Environment Sci. Lab 900 Veteran Avenue Los Angeles, CA 90024 Phone:	60	12/99	0 1,000

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SEKI	Fire and the Forest Dynamics of Giant Sequoias	Stephenson, Dr. N. L. National Park Service Sequoia National Park Three Rivers, CA 93271 Phone: (209)565-3341	60	12/91	37,000 0
WR	SEKI	Size Distributions and Spatial Patterns of Giant Sequoia	Stohlgren, Mr. T. J. University of California National Park Service CPSU Wickson Hall Davis, CA 95616 Phone: (916)752-3429	30	12/91	0 0
WR	SEKI	Tree-Ring Reconstruction of Giant Sequoia Fire Regimes	Swetnam, Dr. T. W. University of Arizona Building 58, West Stadium Laboratory of Tree-Ring Research Tucson, AZ 85721 Phone: (602)621-2112	60	6/91	65,799 17,472
WR	SEKI	Seasonal Ethylene Production, ozone Sensitivity and Wood Formation in Two Western Conifers.	Telewski, Dr. F. W. University of Arizona Laboratory of Tree-Ring Research Tucson, AZ 85721 Phone: (602)621-6466	100	11/89	3,600 0
WR	SEKI	Cartography of Surface Features of Redwood Canyon Karst	Tinsley III, Dr. J. C. Cave Research Foundation c/o U.S. Geological Survey 345 Middlefield Road MS-975 Menlo Park, CA 94025 Phone: (415)329-4928	40	01/93	0 1,500

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	SEKI	Sedimentology of the Redwood Canyon Karst Area	Tinsley III, Dr. J. C. Cave Research Foundation c/o U.S. Geological Survey 345 Middlefield Road MS-975 Menlo Park, CA 94025 Phone: (415)329-4928	80	12/92	0 4,000
WR	SEKI	Regulation of Element Fluxes in Sierran Conifer Forests	Vitousek, P. M. Stanford University Stanford, CA 94305 Phone: (415)725-1866	60	03/91	27,500 4,200
WR	SOAR	Annotated Bibliography SOAR Parks	Alexander, Ms. J. M. NPS-Coop. Park Studies Unit University of Arizona P.O. Box 41058 Tucson, AZ 85717 Phone: (602)670-6896	60	09/91	0 0
WR	TONT	Saguaro Cactus Status At Tonto National Monument	Bennett, P. S. NPS-Coop. Park Studies Unit University of Arizona P.O. Box 41058 Tucson, AZ 85717 Phone: (602)670-6896	70	01/91	0 0
WR	TONT	Resurvey of 1961 Line Intercept Transects at Tonto Nat'l Monument	Brian, N. J. Route 4, Box 890A Flagstaff, AZ 86001 Phone: (602)774-9203	100	07/89	0 60,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	TONT	Exotic Plants Inventory	Phillips, B. G. 1603 N. Sunset Flagstaff, AZ 86001 Phone: (602)774-5211	100	02/89	6 0
WR	TONT	Vegetation Inventory, Classification and Monitoring - Tonto National Monument	Reichenbacher, F. W. F.W. Reichenbacher & Associates 2739 North La Cienega Drive Tucson, AZ 85715-3530 Phone: (602)886-4303	75	05/90	0 0
WR	WACA	Establishment and Development History of Pinyon-Juniper Woodland at Walnut Canyon National Monument.	Despain, Dr. D. W. University of Arizona Biological Science Bldg - Rm. 325 Tucson, AZ 85721 Phone:	100	12/89	0 0
WR	WACA	The Effects of Prescribed Fire on White-Footed Mice (Permyscus Spp.) and Vegetation at Walnut Canyon National Monument.	Irvine, Ms. L. R. Northern Arizona University 403 S. Leroux Flagstaff, AZ 86001 Phone: (602)774-9665	80	05/90	0 0
WR	WACA	Riparian Inventory of Walnut Canyon National Monument	Phillips, Dr. B. G. 1603 N. Sunset Flagstaff, AZ 86001 Phone: (602)779-4208	98	02/90	0 0
WR	YOSE	Study of California Indian Use of Fire-based Management in the Sequoia-mixed Conifer Forest and Adjacent Vegetation Types of the Central Sierra Nevada	Anderson, Ms. K. University of California Dept. of Forestry & Conservation Berkeley, CA 94720 Phone: (415)548-9419	35	09/91	24,225 8,750

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	The Biogeography and Disturbance History of Sequoiadendron gigantrum within Sequoia, Kings Canyon and Yosemite Natl. Parks, California.	Anderson, Dr. R. S. Northern Arizona University Bilby Research Center P.O. Box 6013 Flagstaff, AZ 86011 Phone: (602)523-5821	60	12/91	48,200 20,605
WR	YOSE	Genetic Divergence in the Pine Weevils (Genus Pissodes).	Aquadro, Dr. C. F. Cornell University Genetics and Development Ithaca, NY 14853 Phone:	10	08/89	0 0
WR	YOSE	Phylogenetic Systematics of Heteroderidae (Nematoda)	Baldwin, Dr. J. G. University of California Department of Nematology Riverside, CA 92521 Phone:	80	12/91	0 91,000
WR	YOSE	Genetic Diversity in Antennaria Pulchella (ASTERACEAE)	Bayer, Dr. R. J. University of Alberta Department of Botany Edmonton, Alberta, Canada T6G 2E9 Phone:	100	6/89	0 0
WR	YOSE	Use and perception of Yosemite NP by foreign tourists.	Berger, Ms. S. Nord Str. 5 5300 Bonn 1 W. Germany	85	12/90	0 0

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Epidemiology of bunyaviruses in the Sierra Nevada	Campbell, Dr. R. University of California 140 Earl Warren Hall Berkeley, CA 94720 Phone: (415)642-3862	75	06/90	0 0
WR	YOSE	Lee Vining Bighorn Sheep Reintroduction.	Chow, Mr. L. S. University of California Dept. of Forestry and Natural Res. Berkeley, CA 94720 Phone: (209)372-2345	75	06/90	35,400 8,000
WR	YOSE	Visitor Perception and Utilization of Yosemite Natl. Park, California.	Demars, Dr. S. E. Rhode Island College Anthro/Geography Department Providence, RI 02908 Phone: (401)647-3297	99	06/88	0 0
WR	YOSE	Sierra Nevada Batholith.	Dodge, Dr. F. C. U.S. Geological Survey 345 Middlefield Rd. Menlo Park, CA 94025 Phone:	10	00/00	0 0
WR	YOSE	Transport of industrial lead in snow through soil to stream water and groundwater.	Erel, Mr. Y. California Institute of Technology Department of Geosciences Pasadena, CA 91125 Phone:	99	12/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Spotted owl distribution and abundance in Yosemite National Park	Gould, Jr., Mr. G. I. California Dept. of Fish and Game 1416 Ninth Street Sacramento, CA 95814 Phone: (916)322-1263	98	12/90	0 29,600
WR	YOSE	Tree Ring Evidence for Long-Term Climatic Change	Graumlich, Dr. L. J. University of Arizona Laboratory of Tree-Ring Research Tucson, AZ 85721 Phone: (602)621-6465	70	06/90	0 2,960
WR	YOSE	A Phylogenetic Revision of the Genera Pimoa Chamberlin & Lvie and LOUISFAGEA BRIGNOLI (ARANEAE, LINYPHIIDAE)	Hormiga, Mr. G. Smithsonian Institution National Museum of Natural History Department of Entomology Washington, DC 20560 Phone: (202)357-4108	0	00/99	0 0
WR	YOSE	Effect of basalt intrusion to microcracks in the Cathedral Peak granite.	Jang, Mr. B. University of Wisconsin Dept. of Geology & Geophysics 1215 West Dayton Street Madison, WI 53706 Phone: (608)262-4895	10	10/90	0 800
WR	YOSE	A Genecological Evaluation of Air Pollution Tolerances in Hardwood Trees. Phase 2. Western Parks, Reciprocal Plantings and Field Examinations of Foliar Morphology.	Karnosky, Mr. D. F. Michigan Technological University Houghton, MI 49931 Phone:	99	12/89	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Reproductive Biology of Manzanita	Keeley, Dr. J. E. Occidental College Department of Biology Los Angeles, CA 90041 Phone: (213)259-2898	50	00/00	0 0
WR	YOSE	Survey of Soils of the Sierra Nevada For Sensitivity to Acid Deposition	Kuh, Ms. L. F. North State Reources, Inc. 962 Maraglia Street Redding, CA 96002 Phone: (916)222-5347	95	06/90	0 150,000
WR	YOSE	Carbon-13 Measurement	Lancaster, Mr. J. Scripps Institution of Oceanography 2314 Ritter Hall, A-020 La Jolla, CA 92093 Phone: (619)534-4230	100	03/90	0 0
WR	YOSE	Analysis of genetic interrelationships of Pedicularis species by DNA restriction mapping and sequencing.	Macior, Dr. L. W. University of Akron Department of Biology Akron, OH 44325-3908 Phone: (216)375-7155	25	12/95	0 3,000
WR	YOSE	Population Status of the Yosemite Toad, Bufo canorus	Martin, Mr. D. L. San Jose State University Dept. of Biological Sciences One Washington Square San Jose, CA 95192-0100 Phone: (408)924-4900	0	00/99	0 0

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Geochemical Mapping - Southern California	McNeal, Dr. J. M. U.S. Geological Survey Box 25046, MS-925 Denver Federal Center Denver, CO 80225 Phone:	80	00/00	0 0
WR	YOSE	Survey of Sensitivity of Lakes in the Sierra Nevada to Acid Precipitation.	Melack, Dr. J. M. University of California Department of Biological Sciences Santa Barbara, CA 93106 Phone:	50	07/91	0 0
WR	YOSE	Whirling Disease Distribution in California Salmonid Fish Populations (Myxosoma cerebralis)	Modin, Mr. J. C. California Dept. Fish & Game Fish Diseases Laboratory 2111 Nimbus Rd. Rancho Cordova, CA 95670 Phone: (916)355-0811	25	00/00	0 0
WR	YOSE	Precipitation Distribution in the Sierra	Morgan, Dr. D. L. California State University Department of Geography Fresno, CA 93740-0069 Phone: (209)294-2678	82	07/94	0 1
WR	YOSE	Pollination Ecology of a Sierran Sub-alpine Meadow	Myers, Mr. J. L. California State University 2442 Burlington Place Stockton, CA 95209 Phone: (209)952-7873	99	09/89	0 3,600

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Gravity and Magnetic Studies, Central Sierra Nevada	Oliver, Dr. H. W. U.S. Geological Survey Geologic Division, MS-989 345 Middlefield Rd. Menlo Park, CA 94025 Phone: (415)329-6031	50	12/92	0 15,000
WR	YOSE	Forest/Environments and Soil/Vegetation Relations in Yosemite National Park	Parker, Dr. A. J. University of Georgia Department of Geography Athens, GA 30602 Phone: (404)542-2368	100	05/89	0 5,000
WR	YOSE	Root-disease/bark beetle interactions	Parmeter, Dr. J. R. University of California Department of Plant Pathology 147 Hilgrad Hall Berkeley, CA 94720 Phone: (415)642-4763	90	12/90	0 0
WR	YOSE	Yosemite Quadrangle Geologic Mapping	Peck, Dr. D. L. U.S. Geological Survey 101 National Center Reston, VA 22092 Phone:	90	12/95	0 0
WR	YOSE	United States Absolute Gravity Network, Yosemite Park Station (Turtleback Dome AA)	Peter, Dr. G. National Geodetic Survey NOAA - N/CG 114 Rockwall Bldg. Room 426B Rockville, MD 20852 Phone: (703)443-0594	70	12/99	0 500,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Field Studies of Magmatic Vapor Evolution	Piccoli, Mr. P. M. University of Maryland Department of Geology Lab. for Mineral Deposits Research College Park, MD 20742 Phone: (301)454-3548	60	06/91	0 152,500
WR	YOSE	Biological and Management Implications of Fire/Pathogen Interactions in the Giant Sequoia Ecosystem	Piirto, Dr. D. D. California Polytech. State Univ. Natural Resources Management Dept. San Luis Obispo, CA 93407 Phone: (805)756-2968	40	12/91	36,547 14,000
WR	YOSE	Genetic Structure of Admiral Butterflies	Porter, Mr. A. H. University of Canterbury Department of Zoology Christchurch 1 - New Zealand Phone: (03)667-001	95	06/90	0 5
WR	YOSE	Ecological Classification of Red Fir	Potter, Mr. D. U.S. Forest Service, Region 5 Stanislaus National Forest 19777 Greenley Road Sonora, CA 95370 Phone: (209)532-3671	85	10/91	0 3,000
WR	YOSE	The ecology and control of bull thistle, Cirsium vulgare, populations in Yosemite National Park.	Randall, Mr. J. M. University of California Botany Department Davis, CA 95616 Phone: (916)752-0617	60	06/91	15,866 750

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Ecology & management of Trifolium bolanderi, Calochoutus longebarbatus, and Poa fibrata: phenology, growth, and reproduction; and response to defoliation, protection, and specialized grazing.	Ratliff, Dr. R. D. U.S. Forest Service Forestry Sciences Laboratory 2081 East Sierra Avenue Fresno, CA 93710 Phone:	0	00/99	0 0
WR	YOSE	Spatial Distribution of Climatic Data	Rodgers, Mr. R. P.O. Box 149 San Anselmo, CA 94960 Phone:	0	00/99	0 0
WR	YOSE	Visitor response to small mammals in Yosemite National Park	Schlaile, Ms. T. M. University of Montana P.O. Box 9065 Missoula, MT 59807 Phone: (000)450-5395	100	5/89	0 50
WR	YOSE	Electrophoretec studies of Colias behrii.	Shapiro, Dr. A. M. University of California Department of Zoology Davis, CA 95616 Phone:	90	08/90	0 0
WR	YOSE	Ecology of Euphydryas butterflies, and the evolution of diet.	Singer, Dr. M. C. University of Texas Department of Zoology Austin, TX 78712 Phone: (512)471-4506	50	12/90	0 1,000

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Research Reserves: longterm representative habitat study	Smith, Dr. J. J. San Jose State University Department of Biology San Jose, CA 95192 Phone: (408)924-5017	50	09/38	0 0
WR	YOSE	Sucker-trout annual Population Fluctuations in the Merced R.	Stephens, Dr. J. S. Occidental College Department of Biology Los Angeles, CA 90041 Phone:	80	12/91	0 0
WR	YOSE	Tree-Ring Reconstruction of Giant Sequoia Fire Regimes	Swetnam, Dr. T. W. University of Arizona Laboratory of Tree-Ring Research Building 58, West Stadium Tucson, AZ 85721 Phone: (602)621-2112	60	06/91	65,799 17,472
WR	YOSE	Biosystematic studies on the Isoetes of North America.	Taylor, Dr. W. C. Milwaukee Public Museum 800 W. Wells St. Botany Section Milwaukee, WI 53233 Phone: (414)278-2760	100	6/89	0 500
WR	YOSE	The Distribution, Population Abundance, and Habitat Requirements of the Sierra Mountain Beaver in Yosemite NP	Todd, Mr. P. A. 717 Longstaff Missoula, MT 59801 Phone: (406)721-3127	100	02/90	0 7,550

Investigators Annual Report - 1989

Reg	Park	Project Title	Investigator/Address/Phone	% done	End	NPS$/Other$
WR	YOSE	Rephotographing Early 20th Century Scenes in Yosemite National Park	Vale, Dr. T. R. University of Wisconsin Department of Geography Madison, WI 53706 Phone: (608)262-6301	90	09/90	0 0
WR	YOSE	Status of the Great Gray Owl in Yosemite National Park	Van Riper III, Dr. C. Northern Arizona University Center for Colorado Plateau Studies Flagstaff, AZ 86011 Phone: (916)752-6273	90	09/90	0 0
WR	YOSE	Geographic Information System Research	Van Wagtendonk, Dr. J. W. National Park Service Yosemite National Park P.O. Box 700 El Portal, CA 95318 Phone: (209)372-0465	40	09/95	50,304 0
WR	YOSE	Fire Dynamics Research	Van Wagtendonk, Dr. J. W. National Park Service Yosemite National Park P.O. Box 700 El Portal, CA 95318 Phone: (209)372-0465	50	09/94	40,000 0
WR	YOSE	Geology of the Tower Peak Quadrangle	Wahrhaftig, Dr. C. U.S. Geological Survey MS-917 345 Middlefield Rd. Menlo Park, CA 94025 Phone: ( )329-4697	50	00/00	0 0