

Chronological Overview
of Research Studies at Craters
of the Moon

G
#2

ANIMALS (GENERAL)

Animals (general)

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- + Statistics on 1985 Deer season at CRMO.
 - Superintendent's annual report, 1985.

- + Statistics on 1984 Deer Season at CRMO.
 - Superintendent's annual report, 1984.

- + A discovered skull ~~g~~ was determined to be that of an immature Bison. 1983. found in cave on south side of Sentinel Butte
 - Superintendent's annual report, 1983.

- + A spelunking group determined no bats hibernate during winter in ~~Arco tunnel~~ ^{Lava tubes.}
 - Superintendent's annual report, 1983.

- 5)
- + Statistics on 1983 hunting season at CRMO.
 - Superintendent's annual report, 1983.

- + 1982 hunting statistics at CRMO.
 - Superintendent's annual report, 1982.

- + Deer study research report filed by Brad Griffith 1983.

- + Final Deer Study memorandum from May 31st meeting in Arco with BLM and ID Fish and Wildlife, 1983.

- + Wild life check list. finished 12/81.

Animals

2

- 10) + Report from Ranger Niel King's trip to S.E. Monument boundary to determine hunting / poaching there. 7/83.
- + Grizzly Bear remains discovered by BLM in Lava tube. 1982.
- + Information from winter flights - concerning Deer Survey. 2/82.
- + Meetings notes on winter flights with BLM and ID Fish and Wildlife and INEL. Spring/82.
- + Hunting statistics before 1982 are missing or incomplete.
- 15) + Report (?) from Glen Devoe, BLM Range specialist.
- + Thirteen deer killed on Highway in 1976.
- + Deer browse analysis. 1972.
- + A rattlesnake spotted on Grassy Cone. 6/30/67.
- + Mule Deer studies done by Brent Richie. 1967.
- 20) + Mule Deer sighted on Sunset Cone. 1/23/67.

+ Mt. Lion tracks at Group Campsite. 11/30/66.

+ A band of Bighorn sheep sighted in Antelope Creek. 2/66.

+ Chipmunks and Plants. see: Plants # 11.

+ Bighorn horn found on Sunset Cone. 5/65.

25) + Bison remains. See: History # 12.

+ Two year old Black Bear killed by hunters $\frac{1}{4}$ mile from Park Boundary. 11/64.

+ A Mt. Lion stalked and ~~attacked~~ ^{attacked} a deer on inferno Cone. 6/64.

+ First rattlesnake observation. N.W. of Grassy Cone. 6/18/60.

+ First Elk evidence. scat. 9/59.

30)

ANIMALS (DOMESTIC)

Animals (Domestic)

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- + Results and projections of livestock trespass after meetings ~~with~~ between the BLM and CRMO in 1985.
 - Superintendent's annual Report, 1985.
- + Notes from meeting between Ranger Niel King and local horse clubs. 2/83.
- + Special use grazing permit to Curtis L. Barker. 1978.
- + On 6/7-8/67, Barker took 1400 sheep through monument via Goodale Cutoff.
 - Again on 12/30/66.

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ANIMALS (BIRDS)

ANIMALS (Birds)

page
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- + Preliminary Raptor Survey done by Rich Howard, U.S. F. & W.S., Boise. 1985
- Superintendents annual report, 1985.

INSECTS

Insects

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- + Plant / Entomology study. By Berta Youtie, 1982. 1983.
- + Study on Butterflies and Moths by Dr. Barr. 1975.
- + Insect survey manuscript and later edition by Donald Horning. 6/66.
- + Cave Beetle found in Boy Scout Cave. 8/65.
- 5) + DDT, at 4lbs. per 100 gals. H₂O used on Bitterbrush to combat tent catapellars. 6/62.
- + DDT mixture was sprayed on tent catapellars around headquarters buildings. 5/61.
- + Scorpion discovered. See: Geology # 22.

PLANTS

PLANTS

Page
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- + Preliminary work completed on Vegetation rehabilitation and Exotic Plant Control, 1985.
 - Superintendent's annual report, 1985.
- + Vegetative baseline Inventory Map Completed, 1984.
 - Superintendent's annual Report, 1984.
- + Ecology studies done by Mr. and Mrs. Michael Horn, 1983.
- + Plant Succession report by Tad Day, 5/83.
- 5) + Plant / entomology study. see: Insects, 1st entry.
- + Herbarium information. 1980?
- + Plant research by Robert ^[? spelling] Wunner. 1967.
- + 44 "new" plant species discovered on Cary Kapuka. 1967.
 - : see Soil #3.
- + Unfinished Plant Ecology project by Karl Urban. 11/66.
- 10) + Forest Mistletoe disease control by Al T^eagethoff.
 - 6/24/66.
- + Plants and Chipmonks. by Dr. Dallas and A. Sutton. 8/65.

plants
2

+ Mistletoe Program: 337 trees pruned, 8 cut, 68 poisoned, 2,706 found free. 8/65.

+ Carey Kapuka grazing integrity challenged when domestic Ewe and lamb seen crossing five miles of AA lava. Estimated 20 minutes time necessary to reach the Kapuka. 7/65.

+ Mistletoe Program: 4,488 trees checked. 11% "infected". 7/65.

15) + Mistletoe Program: 5,922 trees checked. 8% infected. 6/65.

+ Mistletoe Program: 24 trees pruned, 39 cut, 22 poisoned, 21 found free. 25 trees poisoned in 1963 found hazardous and cut. 7/64.

+ Mistletoe Program: 164 trees pruned, 114 trees cut, 51 poisoned, 355 found free. 6/64.

+ Mistletoe Program: 485 trees pruned, 28 cut, 207 poisoned, 2086 found free. 9/63.

+ Mistle toe Program: 300 trees pruned, 38 cut, 538 poisoned, 2196 found free. 8/63.

20) + Mistletoe Program: 670 trees pruned, 121 cut, 512 poisoned, 8148 found free. 7/63.

- + Mistletoe Program: 378 trees pruned, 752 cut, 197 poisoned, 2566 found free. 6/63.
- + Mistletoe Program: 613 trees pruned, 1599 cut, 2608 found free. 9/62.
- + Mistletoe Program: 310 trees pruned, 1538 cut, 171 poisoned, 1053 found free. 8/62.
- + Mistletoe Program: 154 trees pruned, 53 cut, 778 found free. 7/62.
- 25) - + DDT usage on Bitterbrush. See: Insects #'s 5, 6.
- + Triple Twist Tree died early 7/61. suspected drought caused.
- + Tree-ring analysis from Arizona Tree-ring Lab. 8/60.
~~a~~ Sample taken several years earlier.
- + Dwarf Mistletoe report filed by Mr. James Kimmey, USFS. 8/60.

SOIL

SOIL

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- + Mt. Bell dug a trench a mile into the park in 1982. There was much correspondence.
- + Notes on meeting between superintendent, CRMO, and Soil Conservation Office in Goding. Subject: a possible soil survey. 1978.
- + Soil research done on Cary Kapuka by Erasmus Williams. 1967.
 - Also discovered 44 "new" ~~sp~~ plant species.
- + Article by soil scientist Vern K. Hugie on Carey Kapuka. "Forage Plant Physiology and Soil-Range Relationships". 11/64.

WATER

WATER

page

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+ New septic system installed because old was unsafe. 1984.

- Superintendent's annual report, 1984.

+ Old well study by Larry Mann, U.S.G.S. ^{(1977)?} No conclusions.

- Superintendent's annual report, 1985.

+ Results of the 1981 well drilling operation. chiefly unsatisfactory for unknown reasons.

- Superintendent's annual report, 1981.

+ The storage reservoirs were sealed in 1980.

- Superintendent's annual report, 1980.

5) + Environmental Sanitation report by Roger Lee, 5/83.

+ Acid Rain Recorder report by Major Robertson. U.S. Army at Westpoint 1/5/82.

+ Water quality report by Darius Martin, ID Health Dept. 8/19/82.

+ Water table tests results. 1977.

+ Well Report. See: Historical #8.

2) Hydrologist report by Dan Barrett. 1976.

+ Water Samples taken. 1975.

+ waterholes: Bearsden, Little Prairie, Yellowjacket, and the two on N. Craters / Big Craters trail were wet 5/66.

+ Waterholes: Hoodoo and Sheeptrail Butte found wet. 7/65.
- Waterhole: Doves, found dry. 7/65.

+ Waterholes: Big Sink, Yellowjacket, found dry. 6/65.
- Waterholes: Bearsden, Little Prairie, and the two on N. Craters / Big Craters trail found wet. 6/65.

3) + Spring increase after Earthquake. See: Geology # 23.

Air

- + Teleradiometer (automatic) became operational in June, 1985. The Acid Rain Sampler was moved, per standards.
 - Superintendents annual report, 1985.
- + Suspected ~~fluoride~~ fluoride & ozone air damage. Investigated possible gaseous pollution impacts. Done by Dr. Jim Bennet, OSC. 8/85.
 - Superintendents annual report, 1985.
- + Official notice given that CRMO Air is the cleanest in the lower 48. 1984.
 - Superintendent's annual report, 1984.
- + Report on Air quality by David Wright. 1983.
- 5) + " " " " " Tom Harmon. 1983.
- + Air quality management plan. 1983. ?
- + Air quality report(?) by Shirley Clark & Roger Tree. 1982.
- + INEL coal fired steam plant proposal. 1981.
- + Alpha Radiation report by Mike Mayer. 1977.
- 6) + Anemometer records ~~with~~ analysis. 9/61

AIR
2

- + Air quality analysis for Radon gas by Dr. Jack Green. 8/61.
- + Air samples taken by Dr. Jack Green and Mr. Jack Osgood. Taken at: Vermillion Chasm, and other fissures, Broken Top, and Crystle Pit. Looking for Radon Gas. Green and Osgood were from the North American Aero-Space Labs. The samples went to the National Reactor testing station. 7/61.
- + Aurora Borealis observed. 11/27/59.

HISTORICAL/CULTURAL

HISTORICAL / CULTURAL

Page

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- + Museum and cultural pieces List. catalogued 1984.
 - + Limbert Collection item list (approx. 250 items) received 1984.
 - + Correspondence with Margaret Lawrence (Limbert's daughter). 1983 ?
 - + Correspondence with Harold Sterns.
- 5) + Historic Overview done 1983. ? Michael Ostrogorsky ?
- + Text from interview for C.B.S. on 4/13/82.
 - + Any information garnered from a 1981 ad campaign searching for historical info.
 - + Well and archeology reports by Don Barrett and Fred Bohannon. 1977.
 - + Archeological site survey by Messrs. Sneed and Sims. 6/64.
- 6) + Indian hunting blinds or lookout structures (three) discovered in Wilderness Area. 7/65.

Historical 2

- + A world war II Aircraft bomb was exploded at Sheep trail Butte . 7/65. Question raised:
How much topography due to this sort of thing?
- + Indian campsite with Bison remains discovered "in the Black Flow". 5/65.
- + Archeological site discovered by Park Naturalist in wilderness area. 12/59.

FIRE

FIRE

page

1

- + Mark Forbes, PN~~W~~RO • evaluated fire programs at CRMO. 1985.
 - Superintendents annual Report, 1985.
- + Fire adjacent to park on Brodie Ranch on 10/15/77. Man-caused. suppressed.
 - Superintendents annual report, 1977.
- + Two fires, just east of Park on 9/2 & 3/76. man-caused. suppressed.
 - Superintendents annual reports, 1976.
- + Paul Werth, NOAA, Fire Division, Report? 1983.
- +) + ~~4~~ Notes on Fire meeting with BLM. 1/80.
- + Fire adjacent to the park on the Brodie Ranch. 10/15/77. CRMO participated.
- + Two man-caused fires. Just east of Park on Sept. 2nd and 3rd. 1976. CRMO participated.
- + House fire next to park in 1976. CRMO participated.
- + 400 acre Fire 1/2 mile N.E. of Monument boundary. 1966. June or July?
- +) + 100,000 acre fire S.E. of monument boundary. June or 1966. July?

Fire
2

- + lightning fire covering 256 acres in monument. 8/64.
- + Lightning fires (two). One was a class A fire.
 - One burned out in an isolated copse on a flow. 6/62.
- + Lightning fire in the North End contained after burning 2.75 acres. 8/10/60.

GEOLOGY

GEOLOGY

page

1

- + Spatter cone area rehabilitated in 1984.
 - Superintendent's annual report, 1984.
- + Aerial photos by the U.S.G.S., 1983.
 - Superintendent's annual report, 1983.
- + Clean-up & security of Arco tunnel in 1983.
 - Superintendent's annual report, 1983.
- + Caves mapping and photography field work. Scott and Donna Rex, V.I.P.s. 1984.
- 5) + Report done on Y.C.C. rehab. of spatter cones. 1984 ?
- + Manuscript for new topo. map and photos by Richard Lefebvre, U.S.G.S. 1983 ? 1976
- + Crystle Pit descent report. Dr. Ogawa, 1982.
- + ~~correspondance~~ ^{correspondance} with Mel Kuntz, U.S.G.S. 1977 ?
- + Basalt ~~th~~ cores taken for dating. 1976/1977. by Duane Champion.
- 10) + Satilight photos and reports by Mike Daily, Charles Elachi, Tom Farr, and Harry Stewart, Jet Propulsion Laboratory. 1977.

Geological
2

- + Geothermal research by Ken Satterfield, BLM. 3/5/76.
- + Wilderness Area studies by Andy Gibbs. 1975.
- + Crystal Pit Photos. 1975.
- + Lunar researcher Dr. Habrouch did work at the monument. 1967.
- 15) + minor earthquake. 1/6/65.
- + Earthquake. 1/27/63.
- + Hygrothermograph data taken for 1 year in Arco Tunnel. 10/61.
- + Geologic mapping thesis by Mr. ^{↓ [? spelling] ↓} Sohn Murtaugh. 7/61.
- + Hygrothermograph data summary (?) in Superintendent's monthly report, 1/61.
- 16) + Mr. Murtaugh's report on Blacktail Butte and the Wilderness Area. 9/60.
- + Four silicate samples taken and analyzed for Murtaugh's report, USGS. 7/60.
- + Several unrecorded lava tubes found by Murtaugh. N. side of Grassy Cone. One contained a scorpion. 6/60.

+ "Severe" Earthquake at 11:39 p.m., 8/17/59. After shocks felt throughout the next day.

- One North end spring was then observed flowing 3xs normal.

MISC. NOTES

MISC. NOTES:

- Nothing researched beyond 9/55. Useful information was getting scarce, but very possibly a few more useful items hidden in earlier reports.
- Nothing noted on work or correspondence by Dr. Gerry Wright.
- The San Francisco Sidewalk Astronomers made several appearances at the monument. They may or may not represent some useful information.
- Resource Mgmt. Plans are not noted, or quoted.
- There was an article on deer research in the Pacific Science Review 1981.
- There was a meeting with Region, BLM, ect. on 5/13/81 concerning the deer survey. Possible notes and conclusions.
- The Forms 10-225 and 10-226, Superintendents and Investigators annual reports, were referred to on occasion in the Superintendents' monthly and annual reports.
- There was an official application for a Federal Fish and Wildlife report in 1980.
- A wildlife energy exhibit was installed in the U.C. in 1980.
- File N-26 for 1979 was referred to.
 - Superintendent's annual report for 1979 is missing. Possibly it is under N-26.
- Correspondence was made with Karl Urban in 1978.
- Look for info. on Mr. Will Gray, Nat'l. Geographic Society. 1977.
- There was a house fire next to the park in 1976.

- Perhaps there should be a weather category?
Most monthly reports contain weather info.
- Superintendent's annual report for 1974 was missing. N-26?
- Duane Champion did research in 1973. subject?
- Mt. Lion sightings and Domestic Animal trespass are not noted earlier than approx. 1965.
- Seven (maybe ten) photo plots established, 8/61.
Photos to be taken spring and fall. Photo's whereabouts?
- Ranger Zine and wife went into the wilderness Area 9/55, and made a full report.
- 1941, maybe the earliest fire records.
- Fires occur one fire in 3 years, using 22 year average. (natural fires). From: page 7, 1966 resource mgmt. plan.
- Harold Stearns records. Correspondence beginning 1921.
 - 1926: Field notes NPS Files.
 - 1928: "A Guide to the CRMN N.M."
 - 1966: correspondence NPS Files.

History & bibliography in the 1966 resource mgmt. plan.

 - Daughter Norah Stearns (date unknown): correspondence N.P.S. Files.
- 1945, a man-caused range fire burned sections 22, 21, 23, 27, 34. (N.W. corner). Tree Islands went unburned.
- 1957, a man-caused fire, N. of headquarters. burned 50 acres.
- 1949, a lightning fire, N. slope of Coyote Butte. burned 15 acres. Mostly Lumber Pine.