

Rocky Mountain Region

Leafy spurge (*Euphorbia esula*), a highly competitive exotic species and noxious weed, has continued to spread within Theodore Roosevelt NP (TRNP) despite several years of herbicide spraying, causing significant ecological disruption of native communities and, in some localities, replacing all native species.

TRNP in 1987 began an experimental biological control program consisting of several insect species that are natural predators on leafy spurge in eastern Europe. This year the park initiated an intensive biocontrol program, working with USDA Agricultural Research Service (ARS), USDA Animal and Plant Inspection Service (APHIS), North Dakota Dept. of Agriculture, and the ND State University (NDSU).

Recently the park released three different flea beetles – 6,760 *Aphthona flava* at 16 sites (ARS and NDSU), 4,500 *Aphthona nigriscutis* at 5 sites (ARS and NDSU), and 2,000 *Aphthona cyarissiae* at 3 sites (ARS). APHIS is continuing to provide the park with information on the testing of identified biological control agents released in the park and their potential effect on native spurges. ARS is clearing 5 additional new species of biocontrol agents through APHIS.

Biological control agents will not eliminate the spurge, but the goal is to reach an acceptable ecological balance between spurge and the native plant communities. Large scale use of biocontrol is probably 10 years away.

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Wind Cave NP's thistle problem (common to many park areas) cannot be attacked by use of herbicides, owing to the fact that the cave underlies a large part of the park and herbicide contaminated water might infiltrate the cave environment. Thus, the thistle (*Cirsium arvense*), has been manually cut in past years. Dr. Deborah Kendall, Fort Lewis College, is using insects that feed specifically on Canadian thistle to control spread of the plant.

Research and control plots were established and releases of the Canada thistle gallfly (*Urophora cardui*) took place in May and June. Releases of the Canada thistle seedhead weevil (*Larinus planus*) were accomplished in July. Monitoring has shown they are well established and doing considerable damage to thistles in the research plots. A third species, the Canada thistle crown root and stem weevil (*Ceutorhynchus litura*), slated for release, was unavailable. It is hoped this project can continue next year to insure establishment of these species.

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The southwestern subspecies of the Willow Flycatcher (*Epidonax traillii*) has been categorized as a Species of Concern and is being proposed for listing as endangered or threatened. Population declines have been caused by riparian habitat loss and brood parasitism by the brown-headed cowbird (*Molothrus ater*). Surveys now being conducted by the Resource Management division at Glen Canyon NRA and biol-

ogists from Northern AZ/U will give managers the baseline data for understanding and managing willow flycatcher populations along the Colorado.

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Glen Canyon NRA harbors a wide variety of riparian vegetation in side canyons and major tributaries. As part of the ongoing riparian vegetation survey work around the lake, sites will be selected for breeding bird monitoring studies, to start in Spring 1993. This will provide initial baseline data on extent, composition, and status of riparian breeding birds around the lake.

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Several of the Region's park units are monitoring neo-tropical migratory birds in conjunction with other agencies as part of the national interagency Neo-tropical Migratory Bird Conservation Program. Glacier NP is conducting songbird monitoring in cooperation with the USFS. Zion NP is cooperating with the Utah DNR to monitor birds in riparian habitats, and Glen Canyon's monitoring program will complement efforts by other southwest agencies.

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The Branch of Research has hired Ed Wick as Endangered Fisheries Program Coordinator with the developing CPSU at Colorado State U in Fort Collins. Wick will concentrate on the 4 endangered fish species in the Upper Colorado River basin.