



NATIONAL CONSERVATION LANDS

Idaho

2022: Annual Manager's Report

Morley Nelson Snake River Birds of Prey National Conservation Area



Accomplishments

The Morley Nelson Snake River Birds of Prey National Conservation Area (NCA) expanded its relationship with the Idaho Army National Guard in Fiscal Year (FY) 2022 by approving a right-of-way for the Simco East Training Area. The right-of-way will allow the Idaho Army National Guard to move heavy maneuver training activities away from mature sagebrush stands, while providing for additional capacity at the Orchard Combat Training Center (OCTC).

Restoration efforts continue to be a high priority for the NCA. More than 65,000 Wyoming big sagebrush seedlings were planted in the NCA during FY 2021 and FY 2022. At Dedication Point, the most highly visited site in the NCA, more than 1,300 shrubs, grasses, and forbs have been planted with volunteers, including youth.

The NCA continued to be an important living laboratory for partner agencies and universities. During FY 2022, research efforts included habitat restoration techniques, drought resiliency, rare plant survey techniques, remote-sensing applications, recreational use, raptor mortality, and prairie falcon and golden eagle telemetry studies. Results from these studies provides the NCA with the best available science to inform decision making.



Banded Western screech owl

Challenges

The NCA is adjacent to the City of Boise and the greater Treasure Valley, which is one of the fastest growing metropolitan areas in the Western US. This growth has placed greater recreational demands on Idaho's public lands, including BLM-managed lands. In particular, the growth in recreational shooting has caused increased incidences of irresponsible shooting practices, including dumping, shooting of trash, and wildlife poaching. The NCA continues to work with a coalition of stakeholders to address the illegal shooting of protected migratory birds and raptors in the NCA and other areas of Southwest Idaho. The NCA is also experiencing more extended camping as people struggle to find housing in the Treasure Valley.

NCA staff continues to focus on understanding how climate change, wildfire, and habitat degradation are impacting resource conditions and raptor populations. The NCA staff works with partners to highlight these issues and identify potential multiple-use management solutions.



Prairie falcon fitted with telemetry unit

Visitors

An estimated 156,000 people visited the NCA in 2022 to enjoy the many recreational opportunities, such as camping, boating, fishing, hunting, shooting, hiking, biking, and horseback riding. A significant number of people regularly visited the Cove Recreation Site and Dedication Point Overlook, both of which are included in a driving tour along the Western Heritage Byway. The Cove Recreation Site is a managed fee campground within the NCA. It received 6,500 visitors in FY 2022. The primary activities associated with this site are camping, fishing, boating, relaxation, and wildlife viewing. A camp host is on site providing information and light maintenance.

The Dedication Point overlook provides a great spot to view the area's famous birds of prey. From the canyon rim overlook, birdwatchers observe seasonal raptors, canyon and rock wrens, Say's phoebe, cliff swallows, white-throated swifts, common ravens, and rock doves. Sage, Lark, Brewer's sparrows, and western meadowlarks can also be seen in the shrubs along the trail that leads to the overlook. Collaboration with Boise District Engineering, Weeds, and Force Account staff successfully ensured that all recreation sites and facilities were maintained in good operational condition.



Raptor presentation at Dedication Point

Partnerships

In FY 2022, the NCA initiated a new assistance agreement with the Boise State University (BSU) Raptor Research Center to continue priority Golden Eagle research and conservation projects. The agreement was funded through the FY 2022 National Landscape Conservation System (NLCS) Management Support Studies Program and supplemented with BLM Idaho NLCS funding. Priority work includes the continuation of the long-term golden eagle breeding territory occupancy and productivity monitoring program. This monitoring program has been conducted annually since 1969 and is one of the most robust wildlife datasets in North America. Additional conservation aspects of the agreement include improving nesting habitat conditions and a telemetry study investigating juvenile recruitment.

The NCA continues to work closely with its friends group, the Birds of Prey NCA Partnership (BOP). BOP hosted Raptor Fest in June at Indian Creek Winery. This annual event features field trips, educational talks, vendor and organizational booths, music, and food. It continues to be a popular event for the local community.



Golden eagle and nestling

Science

The NCA wildlife and ecology programs support scientific research to further understand the NCA ecosystems and address ongoing and emerging conservation threats. Current priority wildlife studies are focused on golden eagle nesting habitat suitability and nestling survival, black-tailed jackrabbit abundance and distribution, and understanding the scope of migratory bird illegal shooting mortality.

These projects are being conducted and supported by many partners, including the BSU Raptor Research Center, Idaho State University, USGS Snake River Field Station, Idaho Army National Guard, and the Intermountain Bird Observatory. The NCA collaborates with the DeGraff lab at BSU to test how the addition of native soil and biochar amendments impact sagebrush seedling growth.

The NCA was also the site of important social science research in FY 2022. Madeline Aberg conducted her BSU dissertation on the human dimensions of recreation use at the NCA. She characterized the demographics of recreationists in the NCA and their primary recreational activities; assessed the most heavily used sites, seasons of use, and times of day; surveyed recreationists for their values and ideal experiences; and compared recreationists and land managers thoughts on effective management. Madeline's research is helping the NCA develop management strategies to address user and resource conflicts in the NCA.



BSU researcher in repel gear with Golden eagle nestling

Climate Impacts

The NCA is situated in one of the warmest and driest regions of Idaho, characterized by high variability in climate. The anticipated impacts of climate change for the NCA include milder winters, shifts in the timing and amount of precipitation, prolonged droughts, and increased wildfire. These impacts have profound implications for plant community dynamics, prey availability, wildfire risk, and restoration success. Prolonged drought conditions and conversion of shrub and grassland habitats to invasive annual communities, dominated by tumble mustard and Russian thistle, adversely impact small mammal communities, specifically jack rabbits and Piute ground squirrels, that serve as prey for the NCA's raptor population.

Research has identified several climate-related threats to the golden eagle population in the NCA. Changes in prey availability, especially the decrease in the jack rabbit population due to the loss of shrub habitat, has resulted in a dietary shift to rock pigeons and waterfowl. Rock pigeons can carry trichomonosis, which is usually fatal in nestling golden eagles. Due to shorter and milder winters, the prevalence of ectoparasites (bedbugs) is increasing in the NCA. High ectoparasite loads can result in parasite-induced anemia, chronic stress, and premature fledging, any of which can be fatal to nestlings.

A primary challenge for restoration efforts in the NCA is the high interannual variability in the timing of precipitation and the greater incidence of warmer and dryer winters. Prolonged drought conditions the year following seedings and plantings reduce germination and limit establishment and first year survival of seedlings. In addition, milder winters and loss of persistent snow is especially problematic for sagebrush seedlings, as winter snow insulates seedlings from freeze thaw cycles and the absence of which has been linked to first-year mortality. The NCA staff have observed the detrimental effects of low precipitation and prolonged drought on restoration treatment success.



Trichomonosis plaques in the throat of a golden eagle nestling

Climate Resiliency

The NCA partners with researchers to develop and field-test strategies to overcome climatic and resource-related barriers to seeded and planted species establishment and survival. These include the use of novel seed coat technologies and soil amendments including biochar and mycorrhizae. These strategies provide hope for restoration by providing a more favorable, climate-adapted growth environment for developing seedlings.

The NCA is working on a collaborative project between Idaho State University, BSU Raptor Research Center, Idaho Army National Guard. The project is anticipated to produce a new nesting habitat suitability model for golden eagles in FY 2023. Climate warming may influence nest site suitability over time given the importance of solar radiation in predicting nest sites. These results will provide important information about the status of golden eagles on BLM-managed lands in the NCA and in southern Idaho and will contribute to the long-term monitoring and management of eagles. The products will also help BLM plan for fuels management projects by identifying invasive species hot spots in the canyons.



Snake River San Sebastian and Swan 2 Nesting Territories

Social and Environmental Justice

The NCA resumed in-person education programs in FY 2022, reaching more than 2,700 individuals. Events included the NCA's Desert Discovery Days field trips for local fourth graders, classroom visits, summer camps, and cleanup events. The NCA provides school grants to cover busing to educational events such as Desert Discovery Days. The NCA's educational raptors are incredibly effective and frequently requested, ambassadors. The NCA is anticipating that demand for education programs will return to pre-pandemic levels, when the NCA reached more than 10,000 individuals annually, by FY 2024.



Little Hawk the NCA's educational Swainson's hawk

Events

The NCA staff participated in the 5th annual Raptor Fest event on June 4th. Raptor Fest is an annual family-friendly event hosted by the NCA's friends' group, the Birds of Prey NCA Partnership, that celebrates raptors and other wildlife, cultural resources, and the people and organizations that work in the NCA and Treasure Valley of Southwest Idaho. As part of this event, the NCA staff participates in public field trips to the NCA and hosts a booth where the public can learn about the NCA, engage with staff, and meet our education raptor ambassadors.

The NCA was able to host in-person Desert Discovery Days field trips for local fourth graders for the first time since 2019. Desert Discovery Days is the NCA's premier educational event, occurring over two weeks in May. Approximately 300 fourth grade students learn about the mission of BLM by visiting a variety of stations with activities and lessons on the biology and ecology of the NCA.



Local fourth graders participating in Desert Discovery Days



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