



Summer
2010

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Photo by Stephen Ting
Greater sage-grouse (*Centrocercus urophasianus*)

Conserving Greater Sage-Grouse

The U. S. Fish and Wildlife Service (Service) determined in March 2010, that the greater sage-grouse warranted protection under the Endangered Species Act (ESA) but that listing at this time was precluded by higher priority actions. This decision placed the greater sage-grouse on the candidate list in 11 western states, including a bi-state population of greater sage-grouse in western Nevada and eastern California. Since that determination, conservation efforts have expanded throughout Nevada with a focus on implementation of conservation measures for the bi-state population of the species.

Federal and state agencies as well as many private landowners are incorporating and considering greater sage-grouse conservation measures in current and future land management activities. To be effective, these conservation actions require addressing immediate and long-term threats to the species.

Some examples of specific on-the-ground activities to conserve the greater sage-grouse include: avoiding leks; removal of pinyon-juniper woodland in areas where it is encroaching on sagebrush habitat important to greater sage-grouse; protecting riparian

Conserving Greater Sage-Grouse (continued)



Pinyon-juniper removal in greater sage-grouse habitat

(streamside) or other moist areas important for greater sage-grouse brood-rearing; restoring greater sage-grouse habitat after wildfires; and a variety of habitat restoration or protection measures to reduce habitat fragmentation and maintain connectivity.

Although the greater sage-grouse is afforded no protection under the ESA as a candidate species, adding it to the candidate list allows the Service and other agencies an opportunity to work cooperatively with landowners to conserve the species. Federal financial assistance is available through various Service grants and agreements. In addition, the Service has the ability to take advantage of the additional management flexibility afforded to candidate species by facilitating development and implementation of Candidate

Conservation Agreements (CCAs) and Candidate Conservation Agreements with Assurances (CCAAs).

CCAs are formal, voluntary agreements between the Service and one or more parties to address the conservation needs of one or more candidate or at risk species. Participants voluntarily commit to implement specific actions designed to remove or reduce threats to the covered species. CCAs can involve both federally managed and non-federal lands.

For non-federal landowners seeking regulatory assurances, CCAAs are an effective tool. A CCAA provides participating property owners with a permit containing assurances that if they engage in certain conservation actions for species included in the agreement, they will not be required to implement additional conservation measures beyond those in the CCAA in the event

the species becomes listed as threatened or endangered. Under these agreements, additional land, water, or resource use limitations would not be imposed unless the landowner consents to the change. The ultimate goal of developing CCAs or CCAAs for greater sage-grouse is to remove or reduce enough threats to the species to eliminate the need to list it under the ESA.

Addressing the needs of species before the regulatory requirements associated with listed species come into play often provides an opportunity to stabilize or restore these species and their habitats. Successful conservation of the greater sage-grouse can only be accomplished by private, state and federal land managers working together. Incorporating conservation measures for the species in current and future land management activities will be the key to sustaining a healthy population in the future.



Private Landowners Conserve Greater Sage-Grouse

The Service's Partners for Fish and Wildlife Program is increasing efforts across Nevada and on the eastern slope of California to implement greater sage-grouse

Some of the projects occur where there are islands of remaining intact sagebrush habitat surrounded by habitat that has burned multiple times and are now invaded by non-native cheatgrass. Not only will the projects help protect remaining unburned sage-grouse habitat, they will



Wet meadow restoration before (above) and after (right)

conservation projects. "We are currently implementing four greater sage-grouse habitat improvement projects with American Recovery and Reinvestment Act funding and several additional projects funded through the Partners for Fish and Wildlife Program. These projects focus on pinyon pine and juniper removal where these tree species have invaded sagebrush communities; spring and riparian protection from livestock and wild horses; providing off-site livestock watering systems; brush mowing to invigorate and increase plant diversity; sagebrush seeding; as well as spring and stream channel restoration," said Amy Salveter, Partners for Fish and Wildlife Program Coordinator in Nevada.



also benefit the private landowners by reestablishing these areas with native sagebrush plant communities that are more resistant to invasive weeds and resilient to wildfires.

"We are working with other private landowners," said Salveter, "to restore wet meadows and improve greater sage-grouse brood-rearing forage and cover. Projects, like these, with private landowners, are essential in our conservation efforts for the greater sage-grouse."

"Projects, like these, with private landowners, are essential in our conservation efforts for the greater sage-grouse," said Amy Salveter Partners for Fish and Wildlife Program Coordinator

Information on the Partners for Fish and Wildlife Program and how private landowners can conserve greater sage-grouse can be found on the Service's website at <http://www.fws.gov/nevada> or by contacting Amy Salveter at 775-636-6300.



Monitoring Desert Tortoise



Biologists soon discover that even though a desert tortoise is a relatively sedentary animal, active during the daytime, and inhabiting the relatively open landscape of the desert, estimating their presence and population size has many challenges. Desert tortoises are sparsely distributed over vast areas of the Mojave Desert. In addition, many tortoises are not visible because they are underground, and their use of burrows varies considerably even during the

Linda Allison (upper right) demonstrates distance sampling using a polystyrene tortoise. Biologists (left) survey for desert tortoise.



The Desert Tortoise Recovery Office (DTRO), based at the Service's Nevada Fish and Wildlife Office, was established in 2005 to address population declines and focus on recovery of the Mojave population of desert tortoise. The DTRO focuses exclusively on research, monitoring, recovery plan implementation, and associated recovery permitting, and provides a centralized point of contact through which these activities are coordinated.

A focus of the DTRO has been to develop accurate, scientifically credible estimates of desert tortoise populations throughout its range in Nevada, Arizona north of the Colorado River, California, and Utah. Linda Allison is the Service's lead biologist for this effort. Linda trains approximately 60 biologists

each year from various organizations to conduct a survey and monitoring method called "distance sampling" and to apply proper protocols and procedures for safely handling desert tortoise. Prior to surveying for the species in the field, the biologists must demonstrate that they can accurately implement the survey protocol. They must also demonstrate ability to properly handle desert tortoises, since tortoises are susceptible to infectious diseases and are vulnerable to overheating and death if improperly handled under the high temperature conditions characteristic of the desert environment.

spring activity period and especially between years. When they are out of their shelter, they are cryptically colored and shaped making them difficult to locate.

Despite the difficulties of monitoring the elusive Mojave population of desert tortoise, the Service is compiling annual population density estimates, an essential goal in tracking recovery of the species. The Service is using this information in assessing the status of the desert tortoise and its progress toward recovery.

Making A Difference

Ann Schreiber, a longtime Moapa resident, has spent the last 15 years securing funds for the removal of salt cedar along the Muddy River in Clark County, Nevada. Salt cedar is listed as a noxious weed by the State of Nevada.

In 1989, when the Service was considering listing the Virgin River chub in the Muddy River, Ann asked what she could do to help prevent the need to list this fish in the Muddy River. She was told a major threat this species faces is habitat degradation caused by invasive species and suggestion was made to restore the riparian vegetation by removing invasive salt cedar trees.

Although Ann had no experience with this type of work, she took the time to learn about salt cedar, how to control it, and how to write grants. Fifteen years later, she is still busy writing grants and acquiring funds

to pay Nevada Division of Forestry work crews to remove salt cedar.

Ann calls the crews “her boys” and often stops by when they are working on her projects to give them snacks. Ann, who used to introduce herself as a miner’s wife at the Clark County Habitat Conservation Plan meetings, is now president and founder of the non-profit Muddy River Regional Environmental Impact Alleviation Committee.

She has obtained grants and funds from the Clark County Multiple Species Habitat Conservation Plan, The Nature Conservancy, Nevada Department of Environmental Protection, Nevada Division of Forestry and, most recently, the Service’s Partners for Fish and Wildlife Program. The Partners for Fish and Wildlife Program is paying Ann to repeat treatment of areas along the Muddy River so



Ann Schreiber (left) with Sherry Barrett

that the recovery of native riparian vegetation can continue.

Ann’s tireless efforts have restored habitat and have helped give the Virgin River chub in the Muddy River a fighting chance to stay off the Endangered Species List.

Beatty Days

In October, the Service joined the Beatty Habitat Committee during a Beatty Days celebration and hosted games and activities focused on the Amargosa toad. The Beatty Habitat Committee, a local organization, is dedicated to habitat protection for the Amargosa toad, which only occurs in the Oasis Valley in southern Nye County, Nevada

Many of the youngsters at the event came back again and again to play the toad feeding game (tossing insect bean bags into a toad’s mouth), the hopping game, and to play scientist by collecting data on

toads. The big hit of the booth was the terrarium with live toads. Although many adults said they had toads in their yards, they were eager to get a closer look at them.

Service employees Christiana Manville, Michael Burroughs, Brian Novosak, and Jeri Krueger thoroughly enjoyed assisting the Beatty Habitat Committee with the event.



Michael Burroughs assists a future biologist with toad data collection

Pilot Project To Control Asian Clams

Asian clam populations in Lake Tahoe have expanded greatly since they were first detected in 2002. At that time populations were sparse. Their growth and expansion in Lake Tahoe was linked with filamentous green algae blooms in 2008, triggering a significant effort by many agencies and research universities to control source and satellite populations of the clams.

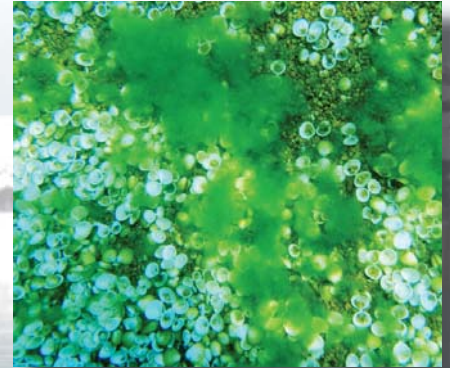
While the clams can produce immediate problems, such as algae blooms, a greater concern is that they could chemically alter Tahoe's waters to allow successful invasion of other non-native species such as quagga or zebra mussels.

Since 2008, an Asian clam working group has been actively planning and implementing a pilot project to determine the most efficient treatment strategies to control Asian clam populations in Lake Tahoe. In 2009, an experimental strategy was implemented, incorporating the placement of 10' X 10' rubber mats typically used to line man-made ponds over the clam beds.

These rubber bottom barriers created an environment underneath where there was zero dissolved oxygen for the clams to use. The oxygen-starving method was proven to be effective during the pilot study which was conducted by researchers from the University of California at Davis, Tahoe Environmental Research Center and the University of Nevada, Reno.

A test run of the bottom barrier deployment apparatus (designed by UC Davis engineers) was conducted in March 2010, at Sand Harbor in Lake Tahoe. The test run showed that deployment and retrieval of larger 10' X 100' barriers could be accomplished with little complication.

In July of 2010, the pilot project was expanded to cover two half-acre plots; one at Lakeside Marina, in California and one at Marla Bay, Nevada. This up-scaled pilot project will provide needed information on the logistics and cost effectiveness of large-scale implementation, impacts to Asian clam and other benthic macro invertebrates, and the recolonization rates of these species on a large scale.



Asian clam
(Corbicula fluminea)

The Asian clam working group includes the Tahoe Resource Conservation District, US Fish and Wildlife Service, Lahontan Regional Water Quality Control Board, Tahoe Regional Planning Agency, California Department of Parks and Recreation, Nevada Division of State Lands, Nevada Division of Wildlife, UC Davis Tahoe Environmental Research Center and University of Nevada, Reno.

Divers place bottom barriers at experimental plots in 2009

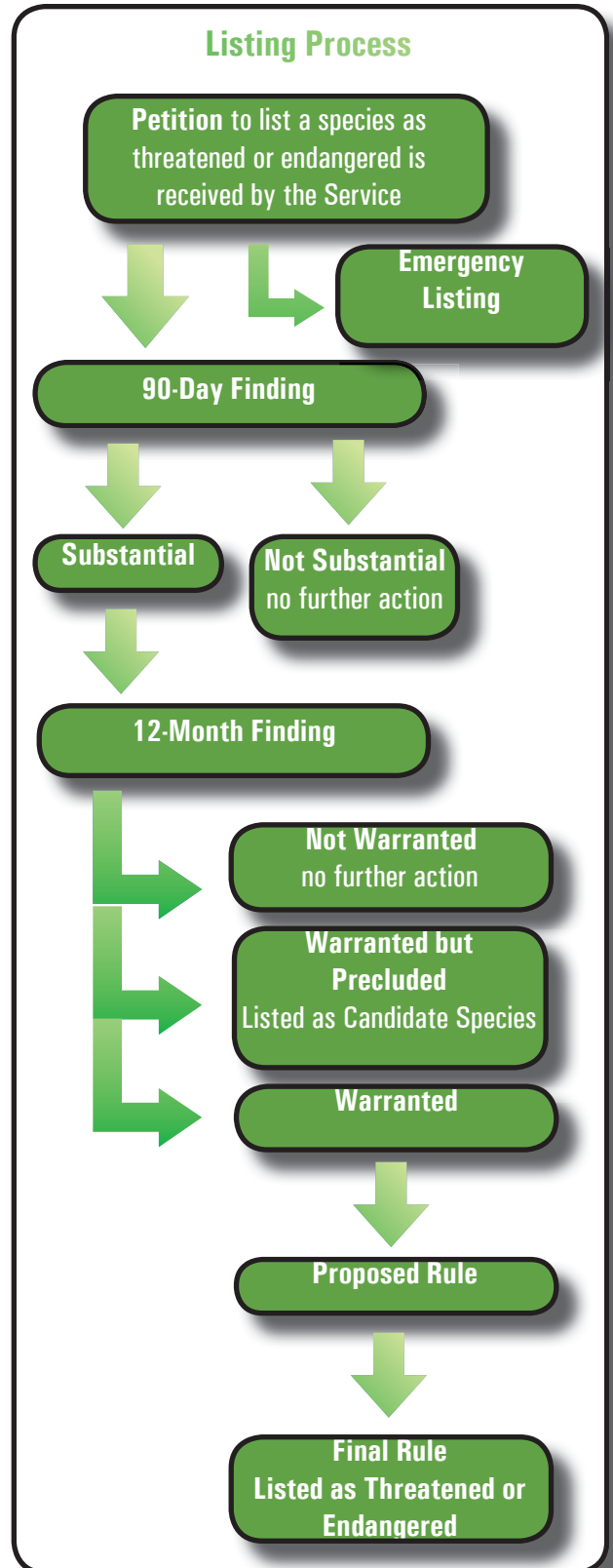
2010 Completed and Planned Accomplishments

Each year, the Service receives a number of petitions asking that a species be considered for protection under the Endangered Species Act. Once a petition is received, the Service completes what is known as a 90-day finding and determines if there is “substantial” information in the petition and in the Service’s files to warrant an in-depth review of the species.

If substantial information is included in the petition and in the files, the Service completes an in-depth review of the species, or 12-month finding. During this review, the Service evaluates the best available scientific and commercial information regarding the species, including an analysis of the threats to it and its habitat to determine if protection under the ESA is warranted.

The following are the petition findings the Nevada Fish and Wildlife Office has completed or is working on this year:

Completed 90-Day Findings	Decision
Northern leopard frog	Substantial
Completed 12-Month Findings	Decision
Greater sage-grouse (range wide)	Warranted but precluded
Greater sage-grouse (bi-state population)	Warranted but precluded
Amargosa toad	Not warranted
90-Day Findings	Expected Publication
42 species of Great Basin spring snail	Fall 2010
10 species of Great Basin butterfly	Fall 2010
6 species of sand dune beetle	Fall 2010
Mt. Charleston checkerspot butterfly	Fall 2010
12-Month Findings	Expected Publication
Mt. Charleston blue butterfly	Summer 2010
Pygmy rabbit	Fall 2010





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We're on the web!

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A Message From The State Supervisor

As most of you are aware, we have recently concluded that providing protection for the greater sage-grouse under the Endangered Species Act is warranted but listing at this time is precluded by higher priority actions. Implementing conservation actions for the greater sage-grouse is a high priority for the Fish and Wildlife Service in the western United States, and one of my top priorities in Nevada. Our goal is to implement effective conservation measures for the species so that listing will not be needed in the future.

We have an opportunity to build upon work that has begun and to expand cooperative efforts with states, federal agencies, other partners, and private landowners to make a difference in the conservation of the greater sage-grouse. Voluntary conservation agreements, federal financial and technical assistance, and other partnership incentives can play a key role in this effort. Voluntary conservation efforts on private lands, when combined with successful state and federal strategies, hold the key to the long-term survival of the greater sage-grouse. This year, our focus is in working with the State of Nevada to develop these voluntary conservation agreements, known as CCAs and CCAAs, for the Bi-state population of greater sage-grouse.

I encourage anyone interested in learning more about our conservation efforts for greater sage-grouse and other Nevada species to contact me or my staff. With your help, we can make a difference.

Sincerely,

