U.S. Fish & Wildlife Service

Facts and Q&A: Recovery Plan for the California Red-legged Frog

California red-legged frog, *(Rana aurora draytonii),* is the largest native frog in the western United States, ranging in size from 1.5 to 5 inches. Adult females have a significantly longer body than males, by approximately 1 inch.

The belly and hind legs of adult frogs are often red or salmon pink; the back is characterized by small black flecks and larger dark blotches on a background of brown, gray, olive or reddish-brown.

California red-legged frogs have been found from sea level to about 5,000 feet and may be found in a variety of habitats. The frogs breed in aquatic habitats such as streams, ponds, marshes, and stock ponds. During wet weather, frogs may move through upland habitats. Frogs spend considerable time resting and feeding in riparian habitat. They mostly eat invertebrates and feed at night.

Historically, the California red-legged frog was found in 46 counties. Today only 28 counties support known populations of the frog.

The California red-legged frog is threatened by a wide variety of human impacts, including urban encroachment, construction of reservoirs and water diversions, contaminants, agriculture, and livestock grazing. These activities can destroy, degrade and fragment habitat. The introduction of nonnative predators also threatens the viability of many of the frog populations.

Amphibians worldwide seem to be trouble. If frogs begin showing signs of distress, it could be only a matter of time before other species are affected, including humans. Amphibians are good "indicators" of significant environmental changes that may go initially undetected by humans. Humans breathe through lungs, which are inside our bodies and thus protected from direct contact with air and water. Amphibians, however, breathe partially (and in some species, completely), through their skin, which is constantly exposed to the environment. Their bodies are much more vulnerable and sensitive to factors such as disease, pollution, toxic chemicals, radiation, and habitat destruction. The worldwide occurrences of amphibian declines and deformities could be an early warning to us of serious ecosystem imbalances.

For a good source for learning more about amphibians and efforts underway to halt their decline, visit the worldwide web at http://frogweb.gov.

Recovery Plan: The objective of the recovery plan is to delist the California red-legged frog. However, tasks carried out for the California red-legged frog will also benefit several other

sensitive species including salmonids, western pond turtle, foothill yellow-legged frog, mountain yellow-legged frog, California freshwater shrimp, California tiger salamander, Tidewater goby, unarmored threespine stickleback, San Francisco garter snake, Arroyo southwestern toad, Alameda whipsnake, Santa Cruz long-toed salamander, tricolored blackbird, Tomales asellid, saltmarsh common yellowthroat, southwestern willow flycatcher, little willow flycatcher, and least Bell's vireo.

In the final rule listing the California red-legged frog as federally threatened, five recovery units were established. However, based on conservation needs, ecology, and distribution, eight recovery units are proposed in the recovery plan. They include: Sierra Nevada foothills; North Coast foothills and western Sacramento River; north San Francisco Bay/North Coast; south and east San Francisco Bay; Central Coast; Diablo Range/Salinas Valley; Northern Transverse Range and Tehachapi Mountains; and Southern Transverse Range and Peninsular ranges. The revised recovery units are delineated by watershed boundaries. Here is a list of which watersheds are included in the revised recovery units:

Sierra Nevada: The eastern boundary is the 5,000 foot elevation. Watersheds include: Sacramento Headwaters, McCloud, Lower Pit, Sacramento-Lower Cow-Lower Clear, Upper Cow-Battle, Mill-Big Chico, Upper Butte, North Fork Feather, East Branch North Fork Feather, Middle Fork Feather, Honcut Headwaters, Upper Yuba, Upper Bear, Upper Coon-Upper Auburn, North Fork American, South Fork American, Lower Butte, Lower Feather, Lower Yuba, Lower Bear, Lower American, Upper Kern, South Fork Kern, Upper Poso, Upper Deer-Upper White, Upper Tule, Upper Kaweah, Mill, Upper Dry, Upper King, Tulare-Buena Vista lakes, Middle San Joaquin-Lower Chowchilla, Middle San Joaquin-Lower Merced-Lower Stanislaus, Upper San Joaquin, Upper Chowchilla-Calaveras, Lower Cosumnes-Lower Mokelumne, Lower Calaveras-Mormon Slough, Upper Mokelumne, and Upper Cosumnes.

North Coast Range and Western Sacramento River Valley. Watersheds include: Lower Cottonwood, Sacramento-Lower Thomes, Lower Sacramento, Lower Cache, Sacramento-Upper Clear, Cottonwood Headwaters, Upper Elder-Upper Thomes, Upper Stony, Sacramento-Stone Corral, Upper Cache, and Upper Putah.

North Coast and North San Francisco Bay. Watersheds include: Tomales-Drakes bays, San Pablo Bay (partial), and Suisun Bay (partial)

South and East San Francisco Bay. Watersheds include: Suisun Bay (partial), San Pablo Bay (partial), San Francisco Coastal South (partial), San Francisco Bay, Coyote, and San Joaquin Delta.

Central Coast. Watersheds include: San Francisco Coastal South (partial), San Lorenzo-Soquel, Central Coastal, and Carmel.

Diablo Range and Salinas Valley. Watersheds include: Panoche-San Luis Reservoir, Pajaro, Upper Gatos, Estrella, Tulare-Buena Vista lakes (partial), Carrizo Plain, Alisal-Elkhorn sloughs, and Salinas.

Northern Transverse Ranges and Tehachapi. Watersheds include: Middle Kern-Upper Tehachapi-Grapevine, Santa Maria, Santa Ynez, Cuyama, San Antonio, Santa Barbara, Ventura, Santa Clarka, and Antelope-Fremont valleys (partial).

Southern Transverse and Peninsular Ranges. Watersheds include: Calleguas, Santa Monica Bay, Los Angeles, San Gabriel, Antelope-Fremont valleys (partial), Santa Ana, San Jacinto, Seal Beach, Newport Bay, Aliso-San Onofre, Santa Margarita, San Luis Rey, San

Diego, Cottonwood-Tijuana, and Salton Sea (partial).

While the goal of the recovery plan is to protect the longer-term viability of all existing populations within each recovery unit, several areas have been identified as core areas where recovery actions will be focused. In many recovery units, core areas represent areas of high California red-legged frog densities. However, some core areas do not currently support the California red-legged frog–such as most Sierra Nevada watersheds. These unoccupied areas will require varying degrees of rehabilitation with the expectation of future recolonization or reestablishments when habitat suitability has been restored.

Actions needed to recover the California red-legged frog include protecting known populations and reestablishing populations; protecting suitable habitat, corridors, and core areas; developing and implementing management plans for preserved habitat, occupied watersheds, and core areas; developing land use guidelines; gathering biological and ecological data necessary for conservation of the species; monitoring existing populations and conducting surveys for new populations; and establishing an outreach program.

The total estimated cost of the recovery plan is roughly $10 million. The of recovery is anticipated to be around 2025.

Questions and Answers:

Q. What is a recovery plan?

A. The Endangered Species Act mandates the preparation of recovery plans for listed species unless such a plan would not contribute to their conservation. Recovery plans detail the actions necessary to achieve self-sustaining, wild populations of listed species so they will no longer require protection under the Endangered Species Act. A recovery plan is an advisory document. Cooperation from private property owners is voluntary.

Q. Who prepares a recovery plan?

A. Depending on the species, plans are prepared by Fish and Wildlife Service biologists, a panel of recognized experts under the direction of a Fish and Wildlife Service employee, or an appropriate consultant contracted by the Fish and Wildlife Service. Regional directors are responsible for approving recovery plans for listed species occurring in their region.

The Recovery Plan for the California red-legged frog was prepared by Ina Pisani of the U.S. Fish and Wildlife Service and the California red- legged frog recovery team.

Members of the Technical Team are: Dr. Gary Fellers, Point Reyes National Seashore; Galen Rathbun and Norm Scott, Biological Resources Division, U.S. Geological Survey; Mark Jennings; John Steuber, U.S. Department of Agriculture, Wildlife Services; Amy Lind, U.S. Forest Service; and Grace McLaughlin, U.S. Fish and Wildlife Service.

Comprising the Stakeholder Team are: Terry Strange, County of San Joaquin Mosquito and Vector Control District; Sheila Massey, California Cattlemen's Association; Bruce Blodgett, Farm Bureau Federation; Michael Jani, California Farm Bureau, Santa Cruz; John Orr, Home Builders Association of Superior, California; Mark Rentz, California Forestry Association; William Shook, Point Reyes National Seashore; Linda Parker, U.S. Forest Service, Los Padres National Forest; Bradley Valentine, California Department of Forestry, Santa Rosa; Philip Zentner, California Environmental Protection Agency; William Cunningham, Natural Resources Conservation Service; Ed Lorentzen, Bureau of Land

Management; Ivette Loredo, U.S. Fish and Wildlife Service, San Luis National Wildlife Refuge Complex; Tamara Sasaki, California Department of Parks and Recreation, Off- Highway Motor Vehicle Recreation Division; Sara Chubb, U.S. Forest Service, Albuquerque, New Mexico.

Q. What are recovery tasks?

A. Recovery tasks are actions needed to reduce or resolve the threats or limiting factors that contributed to the endangered or threatened status of the species. These tasks are designed to achieve recovery objectives.

Q. What is the priority system used for tasks?

Recovery tasks are assigned a priority number associated with one of the three priority levels. Tasks necessary to prevent extinction are priority 1, tasks necessary to avoid further decline are priority 2, and other tasks necessary to achieve recovery are priority 3.

Q. What is the objective of the Recovery Plan for the California red-legged frog?

A. The ultimate goal of the recovery plan is to delist the California red-legged frog.

Q. What recovery actions are recommended in the Recovery Plan for the California red-legged frog?

A. Considering that habitat loss and fragmentation is a major cause of the species' endangerment, protecting known populations and suitable habitat is a central component of this plan. Other recovery actions include reestablishing populations within their historic range; developing and implementing management plans for preserved habitat, occupied watersheds, and core areas; monitoring existing populations and conducting surveys for new populations. Public outreach is also an important task.

Q. Who is responsible for implementing the recovery plan?

A. Although the U.S. Fish and Wildlife Service has the statutory responsibility for implementing this recovery plan, and only Federal agencies are mandated to take part in the effort, the participation of a variety of groups is essential to successful recovery.

Q. Do recovery programs work?

A. Yes, but recovery is a challenge that takes time. It seeks to halt or reverse declines that in some instances have been many years in the making. On average, even in the face of a substantial increase in the number of species listed over the past decade, the recovery efforts of the Service, other Federal agencies, states, tribal governments and private landowners have managed to hold those species with declining populations trends to an overall average of 35 percent. Of all the species listed between 1968 and 1998, only 7--or less than 1 percent--have been recognized as extinct, and subsequently delisted. The fact that almost 99 percent of listed species have not been lost speaks to the Endangered Species Act success as a mechanism for conservation of species that are at risk of extinction.

More questions?

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