by Harry McQuillen

## Progress in Riparian Brush Rabbit Recovery

Although it was once pervasive in the dense riverside forests of California's San Joaquin Valley, the riparian brush rabbit (Sylvilagus bachmani riparius) nearly disappeared in the 20th century as forests were cleared for farms and cities. With numbers estimated at fewer than 250 individuals in a single known population, biologists worried the subspecies might go extinct. It was listed as endangered in 2000. Now, however, a new captive-propagation program launched by the U.S. Fish and Wildlife Service and numerous partners is rearing rabbits for release into the wild, and the riparian brush rabbit is back, hopefully to stay.

One year into a five-year program, 49 pen-reared rabbits have been released at the San Joaquin River National Wildlife Refuge, and 28 remain alive and are reproducing. Of the 21 animals "missing in action," nearly half are confirmed to have answered their call of duty as prey for other wildlife. Over the

next four years, nearly between 80 and 100 rabbits a year will be raised and released into the wild to establish three self-sustaining populations in existing or restored habitat in the San Joaquin Valley. Thus far, we are extremely gratified by the results, but the road has not been easy.





At first glance, it might seem pointless to recover an animal responsible for the cliche "breeding like rabbits." However, the same challenges facing high-profile recovery efforts like the gray wolf (Canis lupis) or the California condor (Gymnogyps californianus) can also wreak havoc on a program with small, seemingly easy-to-work-with species such as the riparian brush rabbit.

Money has been tight. Funding is a continual struggle, not only to build and operate a captive-breeding facility but also to acquire and restore habitat. We have had other challenges as well. The program has spent time building productive relations with adjacent landowners, acquiring habitat from willing sellers, overcoming genetic and disease issues in a population that was dangerously small, and completing the necessary environmental and public review processes. The individuals and agencies involved worked together to find common ground, and they translated that into conservation action.

Our success would not have been possible without the cooperative effort of our partners, including the Bureau of Reclamation; California Department of Water Resources; California Department

of Fish and Game; Endangered Species Recovery Program at California State University, Stanislaus; private landowners; and even a Girl Scout troop from the nearby town of Ripon, California, which spent an afternoon planting tree saplings for our habitat-restoration effort. Strong partnerships resulting in action on the ground are what makes endangered species recovery exciting and successful.

The Bureau of Reclamation and the CALFED Bay-Delta Program, a consortium of two-dozen state and federal agencies working to improve water supplies and the environment, have provided much of the funding. The Bureau of Reclamation is providing about \$500,000 a year for the captivebreeding facility. CALFED has provided about \$4 million for habitat restoration, and we hope to receive additional funding later this year. We hope eventually to restore several thousand acres of riverside forest along the San Joaquin River and its tributaries. However, habitat restoration is expensive, so continued support for the program is fundamental to its long-term success.

Whether you are a biologist on the ground collecting field data, or a biologist working from an office trying to hold a successful recovery program together, the message is the same: species vary, but recipes for successful projects often do not. Some species are easier to capture and handle, some are easier to breed in captivity, and some are just cuter. The problems associated with making their recovery successful, however, are generally the same, and they can be overcome. Strong partnerships, sufficient funding, some willingness to adapt, and a bit of luck have all served the riparian brush rabbit well, and these things can serve other recovery actions well, too. In the case of the riparian brush rabbit, the program has been a success. The bunny is back, and if things go as planned, select riverside forests in the San Joaquin Valley will be thick with riparian brush rabbits in a few short years.

Harry McQuillen is chief of the Endangered Species Recovery Program in the Sacramento, California, Fish and Wildlife Office (harry\_mcquillen@fws.gov; 916/414-6742).