



United States Department of Agriculture  
Natural Resources Conservation Service

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## Rice & Birds: Both Benefit from Wildlife Habitat Work

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— Greg Yarris,  
Central Valley Joint Venture



This California rice farmer (and his canine buddy) in recent years have worked with conservationists to define practices that benefit waterbirds.



Flattened levees between rice fields, like the one above, can provide good breeding habitat for birds.

It is hard to know who benefits more from the natural resource setting of California’s Sacramento Valley: Rice producers who use the Valley to produce 4.5 billion pounds of the grain annually, or the nearly three million waterfowl and hundreds of thousands of shorebirds that use the Valley for breeding and/or feeding. Indeed 50% of all wintering waterfowl migrating through the Pacific Flyway, utilize this Valley—where 2,500 rice producers and their families also live and produce the second highest rice harvest in the Nation.



A great blue heron makes lunch of a crayfish during a hunt in a California rice field.

“If you name a species of duck or goose in California, you can probably find them in the Sacramento Valley and they would likely benefit from practices of rice farmers,” says Greg Yarris of the Central Valley Joint Venture.

Now the birds have even more reason to be grateful to their rice farming hosts and the conservationists who are working with them.

While rice farming is already recognized as providing critically needed habitat for water dependent birds, a new 2-county pilot program in Glenn and Colusa Counties brings the birds benefits that are more strategically targeted to meet their migratory and breeding needs. Under the pilot program, 70 rice farmers have signed contracts with USDA’s Natural Resources Conservation Service to undertake practices to help migratory and shorebird species.

One of the practices rice farmers will be using is flooding their fields earlier or maintaining water on their fields longer in the season—and at the specific depth needed by the birds at critical points in the season. “In general shorebirds and many waterfowl require shallowly flooded habitat, 2-6 inches deep,” says Alan Forkey, Assistant State Conservationist for NRCS. “Rice fields are often deeper than that. Also, rice farmers often pull the water off their land in January but under the pilot program they will keep it on longer and withdraw the water more gradually, providing more precisely the water depths needed for many species of birds,” Forkey says.

Additionally, under the contracts, rice farmers will be shaping the levees between the fields to better accommodate the birds' nesting and resting needs. The sloped levees will be flattened providing a better nesting surface and shoulders that make it easier for chicks to successfully feed along the edges of the levees. Some farmers will also provide artificial nesting structures.

In many ways this is the culmination of years of scientific, agronomic and outreach work between conservationists and rice farmers. The California Rice Commission, Audubon California, PRBO Conservation Science and other conservation groups including Ducks Unlimited have been partnering with NRCS for over a decade. Over the last three years PRBO, Audubon, and the California Rice Commission have been building on this legacy but identifying new practices to meet the specific needs of a diverse set of birds. "Together we have tested practices that seem to really make a difference to waterbirds that are also acceptable to rice farmers," said Paul Buttner of the California Rice Commission.

In some cases, the farmers and conservationists have been able to identify practices that are win-win situations. For example, the longer flooding of the fields degrades the rice straw left after harvest, better preparing the field for the next season. In another case, farmers will manage small portions of their fields as wetland habitat while they also warm the intake water a bit before using it for rice production—a practice that both the birds and the tender rice plants appreciate.

The Migratory Bird Conservation Partnership (PRBO Conservation Science, Audubon California, and The Nature Conservancy) will be directly measuring bird response to the new activities undertaken by the rice farmers. Using information collected along the way, the conservation practices could be used as a template throughout the

Sacramento Valley as well as other rice growing regions nationwide, says Khara Strum, Waterbird Ecologist with the PRBO Conservation Science. "And it could fulfill 100% of the Central Valley Joint Ventures' 5-year objectives for bird-friendly rice, making a significant contribution to sustaining migratory wetland bird populations along the Pacific Flyway," adds Rodd Kelsey of Audubon California.



White faced ibis feed in a flooded rice field, while another rice field and rice storage bins stand in the background.

In August, NRCS was able to make \$2.68 million available for this special initiative, but under the rules that guided the use of the money, it had to be put into action in a very short timeframe. The entire outreach, planning and contracting process had to occur in two short weeks. A workshop was held that swelled with interested farmers. Eventually 77 farmers applied to do the habitat enhancement work and 70 of them signed contracts to do so. Conservationists from all the partner organizations helped with the workshop. "I believe that providing the "why" and the context for these practices really increased farmer enthusiasm for adopting the practices," said Kelsey.

Rice farmers will begin their bird-friendly practices this fall and continue through 2014.



Waterfowl thrive above Sacramento Valley rice fields.