



U.S. Fish & Wildlife Service

Southwestern Willow Flycatcher

Arizona Ecological Services Field Office

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Western Riparian Specialist

When imagining wondrous arrays of colorful birds, one usually pictures the tropics. However, southwestern riparian habitats, the lush ribbons of vegetation running along our streams and rivers, contain the highest density and diversity of bird species outside tropical rain forests.

Sadly, only a fraction of these desert oases remain unchanged in the United States. As this habitat continues to decline, so too do the birds in our southwest skies. One bird in immediate danger is the southwestern willow flycatcher.

This subspecies of the willow flycatcher is an olive-gray bird with a white throat and yellow-gray rump that measures about 5¾ inches in length. It can be distinguished from other subspecies by its song, a sneezy fitza-bew, its call, a repeated “whit,” and by where it lives: widely scattered riparian habitats in the desert Southwest.

The flycatcher reminds observers of a sentinel constantly at attention, whose flitty wing movements resemble salutes and constant tail motions signal a readiness for action. It feeds on insects in lush, multi-layered riparian zones by snatching them on the wing or harvesting them from dense vegetation. Its mission to control insects in riparian areas is an essential function benefiting people as well as plant life.

The southwestern willow flycatcher breeds in Arizona, New Mexico, and southern California, plus portions of southern Nevada and Utah, southwest Colorado, and possibly western Texas. It winters in the rain forests of Mexico, Central America and northern South America.

The flycatcher is a late spring breeder seen and heard in riparian forests by mid-May. Its nest, a tiny cup about 1¾ inches deep, is made of compact fiber, bark, and grass about three to 15 feet above the ground in trees and thickets. The rim is lined with feathers and the inside is lined with a layer of grass and other plant material.



Southwestern willow flycatcher. / USGS Photograph

In late May and early June the flycatcher nests and lays three to four eggs in one-day intervals with the young fledging in early July. There is usually only one brood raised per year, but multiple clutches are not uncommon.

Loss and modification of riparian habitat and nest parasitism by the brown-headed cowbird are key factors in the decline of flycatcher populations. River and stream impoundments, ground water pumping, and overuse of riparian areas have altered up to 90 percent of the flycatcher’s historical habitat.

Flood control projects have inadvertently depleted the cottonwood and willow trees the flycatcher uses for nesting. These trees—a vital, defining part of riparian ecosystems—need periodic flooding to reproduce. Flood control efforts have altered this natural cycle in many areas and also made it possible for non-native species to move into stream side habitats.

In recent decades, the deposition of sediment along lake shores and reservoir deltas, together with fluctuating reservoir levels, has resulted in dense riparian vegetation that provides breeding habitat for flycatchers. These scenarios have resulted in some large breeding

populations. Managing for these habitat areas is presenting water and reservoir operators with exciting and challenging opportunities.

Exotic species of plants, such as salt cedar (tamarisk) and Russian olive, can take advantage of germinating conditions for much longer than native riparian trees because they flower over much longer periods than do cottonwoods or willows. These plants significantly change the environment and the ability of native animals to live within it. Although flycatchers can thrive in these habitats, there is concern about other effects these exotic plants exert on the ecosystem.

Livestock grazing can be compatible with the development of flycatcher habitat. However, livestock overgrazing can also impact the riparian habitat of the flycatcher. These cool and shady stream side habitats are preferred by livestock that consume cottonwood and willow saplings when grass species are not available, depleting the density of vegetation. Since salt cedar is unpalatable to cattle, struggling willow and cottonwood saplings are eaten instead, thereby accelerating the change in habitat.

Another threat is the brown-headed cowbird. This bird lays its eggs in the nests of other species. It removes one or more eggs from the nest and replaces them with its own. The eggs of the cowbird hatch sooner, the young grow faster, and are much larger and more demanding than those of the nesting bird. These young cowbirds then crowd out and starve the other hatchlings. Sometimes flycatchers will abandon their nests and start over, often too late in the season. Cowbird parasitism can greatly reduce the nesting success of the southwestern willow flycatcher. Healthy populations of birds can recover from losses due to nest parasitism, but cowbird parasitism on populations whose numbers are already reduced due to habitat loss can be the final straw.

What is being done to bring our flycatchers back? The southwestern willow flycatcher was listed as 'endangered' by the U.S. Fish and Wildlife Service on February 17, 1995. California and New Mexico also classify the southwestern willow flycatcher as endangered and Arizona recognizes it as a "species of greatest conservation need." State and Federal laws, including the Migratory Bird Treaty Act and the Endangered Species Act, prevent "take" of the flycatcher, which is defined as hunting, trapping, wounding, harassing or otherwise harming the species.

The destruction of tropical rain forests where the flycatcher winters makes the conservation of breeding habitats in the southwest United States even more urgent. Interestingly enough, the survival of riparian ecosystems may depend on the flycatcher as well.



Southwestern willow flycatcher in habitat. / USGS Photograph

"Studies have shown that predation on insects by birds actually results in the improved health of trees and forests," said Bill Howe, nongame migratory bird coordinator for the Fish and Wildlife Service's Southwest Region. "The southwestern willow flycatcher and other insectivorous birds in riparian woodlands consume huge numbers of insects per day, including mass quantities of mosquitoes."

Today, an increasing number of diverse conservation partners are working together to reduce the landscape stressors to our riparian areas to improve the abundance of native riparian plants. To save the southwestern willow flycatcher, we must save these beautiful desert riparian ecosystems and the wondrous array of life within them.

For Additional Information

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