



# Sensitive Species of the Santa Ana Watershed Series



I.C. Tait

## Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

The southwestern willow flycatcher is a small, insect-eating bird that comes to the riparian areas of southern California between late April and late August to breed in willows and other vegetation along the rivers and creeks.

About 50 years ago it was considered common in southern California. Now it is extremely endangered because of the loss of habitat (California has lost over 90% of its riparian habitat) and parasitism by the brown-headed cowbird.

This bird is one of five subspecies of the willow flycatcher but it is the only one that breeds in southern California.

The southwestern willow flycatcher measures about 5.75 in. in length. It has brownish-olive-grayish wings and a whitish throat, a light grayish-olive breast, and pale, sometimes yellowish belly. It has two pale wing bars that contrast with the darker wing (Sibley, 2000; Pike et al, 1996). It forages from a perch, usually a tree branch, and sallies out to pick up insects and returns to its perch. Its vocalizations include a “fitz-bew” and a “whit.”

### Habitat

The southwestern willow flycatcher's breeding habitat is riparian vegetation found along rivers and streams in southern California. The willow flycatchers nest in stream-side willows and shrubs that are usually 13-23 ft high and have dense under stories (Pike et al, 1996). There is usually surface water nearby. The local population in the Prado Basin always nests near surface water or saturated soil (Pike et al, 1996). The nest is usually built in the crotch of tree limbs.

### Status and Distribution

In addition to southern California, the breeding range of the southwestern willow flycatcher includes southern Nevada, Arizona, New Mexico, and western Texas (Pike et al, 1996). There are only two somewhat-stable populations in southern California. One population is on the south fork of the Kern River and the other is on the Marine Corps Base Camp Pendleton on the Santa Margarita River (Pike et al, 1996). The remaining flycatchers are found in small groups spread throughout fragmented habitat. Since 1990, they have been detected in the Prado Basin and along the Santa Ana River, Box Springs Mountain, Alberhill Creek, Canyon Lake, Santa Rosa Plateau Nature Reserve, Temecula Creek, Vail Lake, Lake Skinner, Bautista Creek, and Pterero Creek (Dudek & Assoc. 2002). Historically they have also been found at Hemet Lake, Lake Matthews, and Lake Perris (Dudek & Assoc. 2002).

Southwestern willow flycatchers have been found in small numbers locally and these populations are not increasing. In 1987 five territorial males were detected in Prado Basin. Since 1987, usually only three to five territories are detected there annually. In 1996 and 1997, seven and six territories were detected, respectively. Successful breeding was first documented in Prado Basin in 1988 when one pair fledged 2 young. In 1991, one pair fledged two young, and in 1995, one pair fledged 3 young. As of 2002, over 14 breeding seasons, only 30 young have fledged from Prado Basin (Pike et al, 2002). In 2003, four pairs and an additional five territorial males were detected in the Prado Basin; six fledglings were produced (P. Tennant, OCWD, pers. comm.).

In 2001 only eight flycatchers were detected in Riverside County, seven of those were in the Prado Basin and one was found at Bautista Creek. In 2001, 39 flycatchers were found at 17 sites in San Bernardino County. Eleven of these sites contained only 1 or 2 flycatcher territories; one site, the Mojave River, contained 6 territories (Vireo Working Group, 2003 unpubl.).

### Threats

The loss of habitat and parasitism are thought to be the major reasons for the declining numbers of southwestern willow flycatchers (Pike et al, 1996). Over 90% of California's riparian habitat has been destroyed by human land use practices such as grazing, agriculture, and the modification of rivers and streams for flood control projects, including channelization to allow for urban development. This habitat destruction is taking place in a naturally fragmented landscape. It is a wonder that even a few birds can find their way to the fragmented habitats that remain. Brood parasitism by the brown-headed cowbird is another cause for the decline of the flycatcher. The brown-headed cowbird does not build its own nest but lays its eggs in the nests of other birds. The flycatcher may abandon its nest when its nest is parasitized or it does not recognize that the cowbird egg is not its own and feeds the cowbird nestling when it hatches. The cowbird nestling is bigger so it gets most of the food even if the host bird's eggs hatch. Rarely does a native bird as small as a willow flycatcher fledge from a nest that also has fledged a cowbird; most of the small native nestlings die.

### Research and Management Needs

Some habitat restoration is occurring in southern California. To date, SAWA has removed over 2,000 acres of non-native giant reed (*Arundo donax*) from the Santa Ana River watershed. Once removed, willows and cottonwoods and other riparian vegetation can flourish and habitat for native wildlife can be reestablished.

SAWA biologists manage brood parasitism by trapping cowbirds so that they cannot lay their eggs in the nests of native birds, and by locating nests of native birds and removing the cowbird eggs. Trapping and nest monitoring is known to have helped another endangered bird, the least Bell's vireo, *Vireo bellii pusillus*, but it has not helped the southwestern willow flycatcher as much. More research is needed to identify further problems that affect the southwestern willow flycatcher.

### SAWA contact

Sue Hoffman is one of the biologists with SAWA who is studying the southwestern willow flycatcher. She can be reached at 909-683-7691.

### Photo credit

Photo by I.C. Tait, in *Southwestern Willow Flycatchers in the Grand Canyon* by Mark K. Sogge, National Biological Service.

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