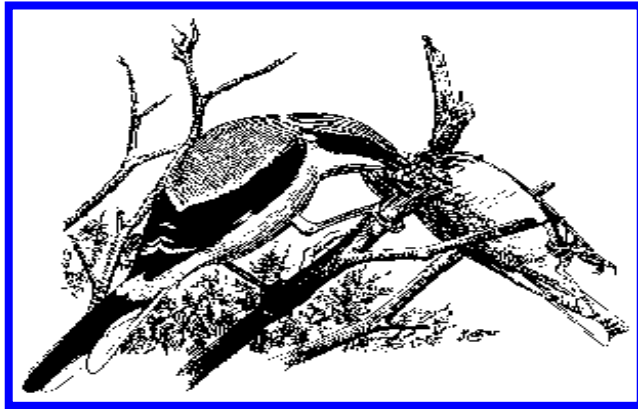




Sensitive Species of the Santa Ana Watershed Series



Loggerhead Shrike (*Lanius ludovicianus*)

The loggerhead shrike is a striking black and white bird that is often observed perched on wires or snags. It captures prey with a strong hooked bill and is famous, or infamous, for impaling its food items on sharp branches, thorns, or barbed wire. Being a passerine, the shrike has feet designed for perching, not for gripping struggling prey. It lacks the strong talons of the birds of prey. So, it uses a thorn or wire as a substitute for hold the prey stationary while it eats. The loggerhead shrike is 8-10 inches tall. It has a gray head and

back with a black mask through the eyes. Its black wings and tail contrast with white underparts.

Habitat

The loggerhead shrike lives in open and semi-open habitats (Garrett and Dunn, 1981). Specific habitat types include grasslands, active pastures, riparian areas, open woodland, agricultural field, desert washes and other scrub communities (BONA, 1996, MSHCP, 2002). These areas provide good hunting grounds for the shrike because they contain plenty of large insects such as grasshoppers, as well as amphibians, reptiles, small mammals, and small birds. The shrike looks for prey from perches, so its foraging habitat must be open for it to locate potential prey. Shrikes typically nest in large shrubs that can be found scattered throughout open areas or that line roadways. A lack of suitable hunting perches can make the habitat unsuitable for the shrike.

Status and Distribution

Loggerhead shrikes can be found across the southern half of North America, into the plains states, north up to Canada, and south into Central America. The western loggerhead shrike, *Lanius ludovicianus gambeli*, is found in open habitats along the southern California coast from San Luis Obispo County to San Diego County, around the Salton Sea, and at the Colorado River. In western Riverside County the shrike is found in the Prado Basin and along the Santa Ana River, Lake Matthews-Estelle Mountain, Wasson Canyon, Wildomar, Temecula Creek, Wilson Valley, Quail Valley, San Jacinto, the Lake Perris/Mystic Lake/San Jacinto Wildlife area, Moreno Valley, the Badlands and the Homeland/Winchester/Menifee area (MSHCP, 2002). It is a year-round resident of the Santa Ana River Watershed. The numbers of shrikes increase in the watershed during the winter because the shrikes that live in the Great Basin migrate south to wintering grounds (Dept Fish and Game).

Because of diminishing numbers, the loggerhead shrike is listed as a Migratory Nongame Bird of Management Concern by the Office of Migratory Bird Management. At one time it was also proposed as a candidate (Category 2) under review for possible listing as endangered or threatened by the U.S. Fish and Wildlife Service. (BONA, 1996) The Loggerhead Shrike is listed as endangered in Indiana, Michigan, Ohio, and Wisconsin. In Illinois and Minnesota, the shrike is listed as threatened. It is listed as a species Of Special Concern in North Carolina. The subspecies that lives on San Clemente Island, off the coast of Southern California, is federally listed as endangered (BONA, 1996).

Threats

There are many factors that caused the diminished shrike numbers of today: 1) People used to kill shrikes. In the beginning of the 20th century many shrikes were killed because people did not like the idea that the bird would impale its prey. They called it the butcherbird. Because it is illegal to shoot the bird now, this is no longer a major problem. 2) Pesticides may be poisoning the shrike and its food supply. The recent decline in numbers, in the 1940-70's, coincided with the use of organochlorine pesticides (BONA, 1996). Pesticides may be hurting the shrikes directly. Studies have shown thinning of eggshell thickness in some populations outside of California. Aldrin (which

metabolizes to dieldrin) is used for control of insects and may be poisoning shrikes that feed on exposed insects. The use of aldrin on the mid-western prairies to kill grasshoppers apparently caused a sharp decline in the loggerhead shrike population that fed on the insects. There is also concern that the pesticides used to control the fire ants are poisoning the food supply of the shrike. (BONA, 1996). 3) Human land use practices over many decades have affected the shrike. Whereas the creation of pastures from forests in the eastern U.S. in the early part of the century helped the shrike by giving it open areas in which to hunt, the subsequent conversion of pastures to urban use and croplands is destroying shrike habitat. Elsewhere the conversion of native habitats such as sage-steppe and coastal sage scrub to agriculture and other human uses is also reducing habitat for the shrike. In California, there is concern that urbanization is causing a decline in numbers. The removal of large shrubs along roadways and in fields is also reducing the shrike's chances for survival by destroying nesting sites (BONA, 1996).

Research and Management Needs

There is a lot we can do in the Santa Ana Watershed to help the loggerhead shrike. We need to maintain open habitats such as large tracts of coastal sage scrub and floodplain habitats. Leaving shrubs along roadsides will provide nesting sites. The use of biocides in habitats should be reduced or eliminated. (BONA, 1996) and wildlife friendly means of controlling unwanted insects should be used. Scientific research is needed on life-history traits such as: juvenile and adult mortality; determination of source and sink populations; susceptibility to human disturbance; and dietary needs including how weather, land use, and biocides influence food availability (BONA, 1996).

SAWA contact

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Photo credit

J. Schmitt in Birds of North America, No. 231. the Loggerhead Shrike.

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