

A California Riceland Success Story

Black Terns may easily be overlooked because of their small size and very patchy distribution in rice country, but at close range their shiny black plumage and graceful, swallow-like flight are a delight to behold. Numbers of nesting terns plummeted in the Central Valley with the substantial loss of historical wetlands. But the species adapted to the great expansion of rice cultivation in the Sacramento Valley since World War II and has subsequently increased from former population levels.



Current and past population data

There are no estimates of historical nesting numbers. Statewide surveys in 1997 and 1998 estimated the total California nesting population at over 4,000 pairs, with about half of these each in northeastern California and the Central Valley. About 90 percent of the Central Valley breeding population was in Sacramento Valley rice fields. Similar surveys were conducted in 2009 and 2010, but final population estimates for that period have yet to be calculated.

Information regarding each species' benefit to rice growers

Benefits are not well documented, but the terns' heavy diet of insects suggests they may reduce populations of some winged pests.



CALIFORNIA RICE

BLACK TERN

Chlidonias niger



SPECIES IN FOCUS

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BLACK TERN

Chlidonias niger

Appearance



Size: 9–10 in
Weight: 1.8–2.1 oz

A small dark bird with pointy wings. Unmistakable in breeding plumage when the head, neck, and underparts are mainly blackish, but white under the tail and wings and on leading edge of inner wing; remaining upperparts smoky grey. In late summer and fall, the underparts are blotched black and white during molt. Black bill, dark eyes, and dark reddish brown legs. Flying young birds are white on the head, neck, and underparts, with a black crown patch extending down onto side of head; blackish patch at the sides of the chest, with smoky upperparts washed brown.



Range

Breeds in both the Old and New Worlds. In North America, breeds widely across central and southern Canada and the northern United States,

reaching its southwestern breeding limit in California's Central Valley. Birds migrate broadly across North and Middle America to wintering grounds mainly in marine and marine-coastal areas of Middle and northern South America.

Habitat



Nests in shallow, highly productive emergent wetlands or their equivalents. In northeastern California, breeds primarily in low-stature spikerush or juncus marshes. In the Central Valley,

most birds now breed in cultivated rice fields. Breeding is infrequent in managed marshes in the Sacramento Valley; and, mainly in very wet years, in other flooded agricultural fields with residual crops or weeds or other low-stature wetlands in the San Joaquin Valley.

Food/feeding



The diet of breeding terns is mainly insects, particularly damselflies and dragonflies, but also spiders, amphipods, crayfish, small mollusks, and small fish. Fish sometimes dominate the diet by mass and provide an important source of calcium. Migrants may concentrate on swarming insects. Terns catch prey in flight or may hover briefly and drop or swoop to take morsels from the water or off vegetation.

Behavior



Black Terns nest in loose, widely separated colonies. Adults build small cuplike nests of aquatic vegetation, usually placed on floating masses of matted, decaying, or emergent vegetation, logs and boards, dried cowpies, and old nests of other marsh birds. These substrates are usually anchored to, or lodged in, emergent vegetation or dense beds of submerged rooted aquatics. Terns also will nest on non-floating substrates, such as raised mud patches or marshy hummocks. In rice fields, the tops of large dirt clods emerging above the water provide ideal nest platforms. Early courtship occurs in flocks with birds ascending in rapid jerky flight, then gliding obliquely down and swooping upward near the surface.

Predation

Known predators of Black Tern eggs or chicks include herons, night-herons, owls, mink, and Norway rats. Other potential nest predators include



hawks, gulls, crows, various mammals (raccoons, muskrats, weasels, otters), snakes, and turtles. Rats may reach tern nests in rice fields when water levels are drawn down temporarily early in the growing season. Adult terns have been taken by Northern Harriers, large fish and Common Ravens.

Conservation Status



The North American Waterbird Conservation Plan classifies the Black Tern of "Moderate Concern." Included on the list of California Bird Species of Special Concern because of historical habitat loss and population declines, particularly in the Central Valley.

Benefits of rice cultivation to species/group

These terns forage extensively over rice fields, and also along large water delivery canals, and in the Sacramento Valley they nest almost exclusively in rice.

Additional benefits of adjacent managed wetlands to species/group

Adjacent wetlands provide little benefit given the limited water available during summer is mainly in permanent wetlands that lack the shallow waters and low-stature marsh vegetation the terns use for foraging and nesting.