

Changes in the Status of Bird Species in the Yolo Bypass Wildlife Area in Recent Decades

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The Yolo Bypass is a designated floodway developed in the 1920s to contain and route floodwaters from the Sacramento and American Rivers and local streams when flood conditions prevail, to protect the Sacramento urban region. Bird populations in the part of the Yolo Bypass that now contains the Yolo Bypass Wildlife Area have changed considerably over recent years. Reliable documentation of earlier conditions in and around the Yolo Bypass began in the 1960s and 1970s, including two sources: the *Checklist of the Birds of Sacramento and Vicinity* (Sacramento Audubon Society 1963) and David Gaines' *The Birds of Yolo* (Gaines 1974; subsequently revised [Gaines and Beedy 1986]). A third long-term source is the annual tallies from Area 9 of the Sacramento Christmas Bird Count. Documentation of more recent conditions consists of two editions of the Yolo Audubon Society's *Checklist of the birds of Yolo County* (Beedy 1993; Yolo Audubon Society 2002). Finally a large number of bird records have been recorded in ebird (<http://ebird.org/content/ebird/>) and continue to accumulate daily.

RESPONSES TO HABITAT CHANGES WITHIN THE YOLO BYPASS WILDLIFE AREA

The establishment and management of the Yolo Bypass Wildlife Area and adjacent lands have been important to local and regional bird populations. The most notable local habitat changes have been enhancement and increase in wetland habitat (Garone 2011, Brice 2015), and particularly its availability during the nesting season. Although the Yolo Bypass has long been important for wintering waterfowl, their numbers have often fluctuated with rainfall and the resulting extent of flooding there. Today, with intentional management for year-round wetlands and the winter flooding of harvested rice fields, the bypass now supports larger and more stable numbers of many waterfowl species than previously.

Numerous specific changes in populations have occurred. Several kinds of waterbirds and waders that formerly were rare or absent as breeders are now common. Among the waterfowl, Gadwall (*Anas strepera*) and Northern Shoveler (*Anas clypeata*) were formerly absent, but are now fairly common as breeders. Most herons, especially the Black-crowned Night-Heron (*Nycticorax nycticorax*) and Snowy Egret (*Egretta thula*), have grown considerably in numbers, and two large, productive rookeries are within a few miles of the Wildlife Area. The White-faced Ibis (*Plegadis chihi*), was essentially absent 30 years ago, presumably as a result of wetland habitat loss and DDE pesticide contamination (Ryder and Manry 1994), but is now common year-round in

the Wildlife Area and elsewhere. As recently as 20 years ago, the American Avocet (*Recurvirostra americana*) was rare, and the Black-necked Stilt (*Himantopus mexicanus*) virtually absent in winter. Both are now fairly common all year.

The Wildlife Area is excellent in winter for shorebirds, with nationally significant numbers of Dunlin (*Calidris alpina*) and continentally significant numbers of Least Sandpiper (*Calidris minutilla*). The only known breeding record for Least Bittern (*Ixobrychus exilis*) in Yolo County is from the Wildlife Area in 2009, but this secretive species has been observed almost annually in summer since then. The Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*), a state Species of Special Concern (Jaramillo 2008), regular breeds in dense emergent marsh vegetation and nowhere else in the county.

Grassland and pasture in the Wildlife Area now support nesting Savannah Sparrows (*Passerculus sandwichensis*) of the coastal race. As recently as 20-25 years ago, this species was not known to nest in the area.

RESPONSES TO CHANGES IN SURROUNDING LANDS

Changes in the area surrounding the Wildlife Area have also had an impact on its birds. Herons and ibis have benefited locally from an increase in the acreage of alfalfa under cultivation, because it provides them a second major food source after wetlands. Alfalfa fields also support the Swainson's Hawk (*Buteo swainsoni*) in far greater numbers than existed 40 years ago, and that species now spills over into the Wildlife Area. The Peregrine Falcon (*Falco peregrinus*) experienced severe pesticide poisoning in the mid-twentieth century, and was quite rare throughout the Sacramento Valley until the last decade or so. The species is now regular all year in the Wildlife Area.

CHANGES IN LOCAL STATUS RESULTING FROM REGIONAL POPULATION CHANGES

A number of species have increased at the Yolo Bypass Wildlife Area as part of large-scale changes in distribution, breeding status and abundance. The Canada Goose (*Branta canadensis*) breeding population has increased in the Yolo Bypass area over the last 30 years, although the species is more abundant in wetland areas near developed areas where it grazes on mowed and fertilized turf. While always a wintering bird, Canada Geese only began breeding in Yolo County in the 1970s (Shuford 1993).

The Cattle Egret (*Bubulcus ibis*) and Great-tailed Grackle (*Quiscalus mexicanus*) both expanded their ranges from Southern California and have become established in the Sacramento Valley in the last 20 years (cf. Pandolfino et al. 2009). Both use the Wildlife Area, where the grackle nests regularly. Over the same period, the Common Raven (*Corvus corax*) has re-established itself in the lower Sacramento Valley, after an absence of perhaps a century, and is now widespread in the Wildlife Area and nests there. The

non-native European Starling (*Sturnus vulgaris*) colonized the Central Valley as a breeding species in the late 1950s and early 1960s. Although breeding sites in tree holes are scarce in the Wildlife Area, the species is common in large flocks in winter.

CONCLUSION

The establishment and management of the Yolo Bypass Wildlife Area has provided excellent and consistent habitat for a great variety of birds. Waterfowl, waders, shorebirds, and birds of prey have especially benefited. The presence of year-round water and wetland vegetation have been particularly valuable, as they offer breeding habitat that is scarce elsewhere in the region.

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Sharp-tailed Sandpiper (*Caladris acuminata*). 10 Oct 10. Yolo Basin Wildlife Area, Yolo County, CA. Photo © Dan Brown