# A California Riceland Success Story

Numbers of both wintering and breeding bitterns likely declined greatly in the Central Valley with the dramatic loss of historical wetlands. The species has since adapted to the large expansion of rice cultivation in the Sacramento Valley since World War II and subsequently its population size appears to have increased. Hopefully additional research will better determine the bittern's population size and how this species benefits from rice cultivation.





#### Current and past population data

No estimates are available for the size of this species' population or its densities in suitable habitat in California or the Central Valley. Limited data indicate that bittern populations in these regions have been relatively stable since the late 1960s.

### Information regarding each species' benefit to rice growers

No documented benefit, but it is possible that bitterns consume some invertebrate pests in rice fields.





## AMERICAN BITTERN

### Botaurus lentiginosus

#### **Appearance**



A medium-sized heron with a compact body and neck and relatively short legs. Plumage mainly brown above, with flecks or streaks of black, buff, and cream color, and heavily streaked with brown, white, and buff below. Brown crown, and black streak from below eyes down side of neck (lacking in young birds).



#### WINTER SUMMER YEAR ROUND

#### Range

Most of the North American population breeds in central and southern Canada and the northern United States and migrates south to winter in the southern United States, Mexico, and portions of the Caribbean and Central America. Occurs year round

on the mid-Atlantic coast and the Pacific coast from southern Washington to central California, including the Central Valley.



Occupies a variety of mainly freshwater wetlands with tall emergent vegetation and abundant prey. More numerous in larger wetlands, using habitats with relatively shallow water. Typically nests solitarily in dense marsh vegetation over

water but sometimes over dry ground in structurally-comparable herbaceous cover in uplands surrounding a wetland basin. Birds foraging in rice fields likely nest in denser and taller vegetation in nearby canals or weedy upland fields.

### Food/feeding





A solitary feeder that relies more on stealth and camouflage rather than aggressive pursuit to capture prey. Usually stands motionless, then slowly stretches neck and bill downward culminating in a sudden dart to seize prey. Their diet consists mainly of insects (mostly aquatic, but also grasshoppers), frogs and salamanders, fish, crayfish, snakes (mainly garter and water), small mammals (mainly voles) and a few crabs, spiders, and other invertebrates.



The combination of birds standing tall with bill pointed skyward, their brown and buffy coloration, and ventral streaking enable them to blend imperceptibly with reeds and other dried marsh vegetation. Birds occasionally strike this pose when in the open, seemingly oblivious to the lack of disruptive background vegetation to complete their camouflage. Sometimes called "thunder-pumper" in reference to their breeding calls of low, resonant syllables preceded by clicking and gulping sounds.

### Conservation Status



The North American Waterbird Conservation Plan considers the American Bittern to be of "High Concern." General protection provided by wildlife laws such as the federal Migratory Bird Treaty Act.

#### Benefits of rice cultivation to species/group

In the breeding season, bitterns forage extensively in the shallow waters of rice fields, the extent of which has increased greatly in the Sacramento Valley since the middle of the 20th century.

#### Additional benefits of adjacent managed wetlands to species/group

Adjacent wetlands provide some additional foraging and nesting opportunities, but these are limited during the summer breeding season when the extent of flooded wetlands is at an annual low.