

Basin Wildlife

The multiple-species program of the NBHCP addresses a total of 26 wetland and upland plant and animal species. The giant garter snake and Swainson's hawk are its primary focus.

Giant Garter Snake

The giant garter snake (GGS) originally inhabited many of the Central Valley's historic marshes, hunting for fish and other small prey. Having lost



Photo provided by The Natomas Basin Conservancy

well over 90 percent of its historical habitat in the last 100 years, the GGS is now listed as threatened by the state and federal endangered species acts.

Most of the remaining GGS populations make use of the limited habitats in rice fields and irrigation ditches and are in danger of losing what little habitat remains as farmlands are converted to urban development.

Q: What do giant garter snakes eat?

See next page for answer and more interesting facts about GGS!



Channels and ditches bordered by marsh vegetation provide part of the giant garter snake's habitat needs

Giant Garter Snake Fact Sheet

Scientific Name:
Thamnophis gigas

Appearance: up to five feet long; brown with dark spots, plus light stripes running along the body; lighter color underneath



Habitat: Endemic to California's Central Valley; the GGS requires an aquatic environment for foraging, with vegetation for cover, plus upland areas for basking and hibernating

Food: minnows and other aquatic prey

Conservancy habitat preserves include created and restored marshlands for giant garter snake foraging grounds, interspersed with upland areas for basking and refuge. Rice farming on Conservancy lands follows strict management practices for protecting the snakes.

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Swainson's hawk

Historically, the Swainson's hawk winged over native prairie grasslands and seasonal wetlands, foraging for voles and other rodents. With the loss of native grasslands, it has become adept at using dry-land



farmlands such as row crops, alfalfa, and grain for hunting grounds. As today's farmlands are converted to urban development, the hawk has lost much of its hunting habitat. Tall trees, which the hawk used for nesting, have also declined. Under these pressures, the Swainson's hawk has diminished in numbers and is now listed as threatened by the State of California.

Q: How far does the Swainson's hawk migrate?

See next page for answer and more interesting facts about the Swainson's hawk!

Conservancy habitat preserves include plantings of cottonwoods and oaks in proximity to native grasslands and specially managed farmlands to provide the Swainson's hawk with both nesting and hunting habitat.



Swainson's hawks nest in tall trees, and use them as lookouts for spotting prey in the grasslands below.

Swainson's Hawk Fact Sheet

Scientific Name:

Buteo swainsoni

Appearance: Light morph hawks (right) are most common and have white on forehead and throat. Dark (opposite page) and intermediate morphs also occur.



Photo provided by The Natomas Basin Conservancy

Habitat: Tall trees for nesting, often found in riparian or oak savannas. Grasslands for foraging. The Swainson's hawk prefers short-grass fields for spotting prey.

Food: meadow mice and other rodents, plus insects and other small prey

Migration: Many of California's populations winter in Mexico, Central America, and as far as 6,000 miles away in Argentina.

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Other Species

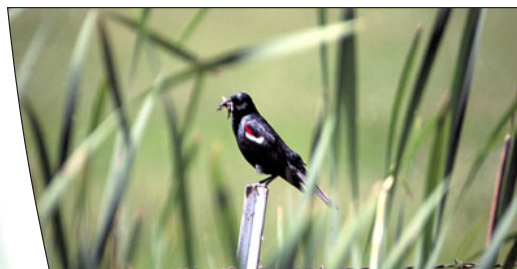
Habitat improvements in the Natomas Basin will benefit many other species as well as the giant garter snake and Swainson's hawk. Examples include the burrowing owl, the tricolored blackbird and the white-faced-ibis.



Burrowing owls are an important covered species found on existing Conservancy lands. The owls nest and forage in grazed grasslands preserved, restored and enhanced by the Conservancy.



The tricolored blackbird nests in brambles along emergent marshes. The Conservancy's lands support one of the region's largest remaining populations of nesting tricolored blackbirds. Ongoing restoration and enhancement work on Conservancy land will create additional nesting and foraging habitat.



The white-faced ibis was once a common year-round resident of the shallow marshes of the Central Valley. After a long-term decline in local breeding populations, the ibis is making a return as a nesting species.

*Top: Burrowing owls
Middle: White-faced ibis
Bottom: Tricolored blackbird*

Species addressed in the NBHCP: Endangered, Threatened, and Species of Concern

Habitat & Species	Federal Status	State Status	Habitat Notes
<i>Wetland Associated Species</i>			
Aleutian Canada goose <i>Branta canadensis leucopareia</i>	T		Grazes in marshes and stubble fields, roosts on the water
Swainson's hawk <i>Buteo swainsoni</i>		T	Breeds in riparian forest; known nesting sites in trees along Sacramento River in Natomas Basin
giant garter snake <i>Thamnophis gigas</i>	T	T	Forages in low gradient open waterways and flooded rice fields; hibernates in canal berms and other uplands; several known occurrences in Natomas Basin
white-faced ibis <i>Plegadis chihi</i>	SC	SSC	Forages in flooded rice fields
bank swallow <i>Riparia riparia</i>		T	Nests in river banks, forages for insects over open water, croplands, and grasslands
American peregrine falcon <i>Falco peregrinus anatum</i>	E	E	Preys on birds, including waterfowl in and around wetlands
greater sandhill crane <i>Grus canadensis tubida</i>		T	Forages in moist croplands with stubble and emergent wetlands
tricolored blackbird <i>Agelaius tricolor</i>	SC	SSC	Nests in marshes with bulrush, blackberry or cattails; three known occurrences in Natomas Basin
northwestern pond turtle <i>Clemmys marmorata marmorata</i>	SC	SSC	Lives in permanent bodies of water; requires floating vegetation, logs, rocks or banks for basking
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T		Live and reproduces on elderberry shrubs found along rivers and canals
delta tule pea <i>Lathyrus jepsonii</i> ssp. <i>jepsonii</i>	SC		Perennial twining vine occurs in both riparian and marsh habitats
Sanford's arrowhead <i>Sagittaria sanfordii</i>	SC		Tuberose perennial likely to occur in drainage or irrigation ditches

Source: Exhibit B, Natomas Basin Habitat Conservation Plan

continued on next page

Note that some species occur in more than one habitat category and thus are listed twice. A total of 26 species are included in the table and are covered by the permits.

Key to Abbreviations

Federal

- E** Listed as Endangered
T Listed as Threatened
C Candidate for federal listing, data sufficient
SC Species of Concern – informal category, formerly called candidate 2 species (data for listing insufficient)

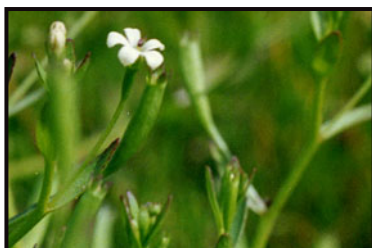
State

- E** Listed as Endangered
T Listed as Threatened
R Listed as Rare
SSC Species of Special Concern



Upland Associated Species			
Swainson's hawk <i>Buteo swainsoni</i>		T	Forages for small mammals in grasslands and croplands
tricolored blackbird <i>Agelaius tricolor</i>	SC	SSC	Forages on the ground in grasslands and croplands; three known occurrences in Basin
loggerhead shrike <i>Lanius ludovicianus</i>	SC	SSC	Prefers open habitats with scattered shrubs, trees, fences, and posts. Will use cropland.
burrowing owl <i>Athene cunicularia</i>		SSC	Prefers open, dry grassland and desert habitats
Vernal Pool Associated Species			
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	E		Vernal pool obligate; inhabits large, turbid pools; six disjunct populations known
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T		Vernal pool obligate; widely distributed in Sacramento County
vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E		Vernal pool obligate; widely distributed in Sacramento County
longhorn fairy shrimp <i>Branchinecta longiantenna</i>	E		Vernal pool obligate; inhabits long-lasting pools; four disjunct populations known
midvalley fairy shrimp <i>Branchinecta n. sp.</i>			Vernal pool obligate often found in small pool; likely to occur in plan area
California tiger salamander <i>Ambystoma californiense</i>	C	SSC	Winters in ground squirrel burrows or other holes; breeds in vernal pools
western spadefoot toad <i>Scaphiopus hammondi</i>	SC		Primary habitat is grasslands; breeds in shallow temporary pools
Colusa grass <i>Neostapfia colusana</i>	T		Occurs in large deep pools with substrates of adobe mud but also in smaller pools; known in Yolo County
Boggs Lake hedge-hyssop <i>Gratiaola heterosepala</i>		E	Low-terrace species found in shallow water margins of vernal pools
Sacramento Orcutt grass <i>Orcuttia viscida</i>	E	E	Found in relatively large, deep vernal pools in eastern Sacramento County
slender Orcutt grass <i>Orcuttia tenuis</i>	T	E	Associated with vernal pools in the Coast Ranges and Cascade Foothills; sometimes found in shallower pools
legenere <i>Legenere limosa</i>	SC		Found in wet places or vernal pools below 400 feet in elevation

Legenere



Sandhill cranes



Northwestern pond turtle

