

Wildlife of Bushy Lake

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Figure 1: Great Horned Owl © Anne Elliot, Calgary, Alberta, Canada, September 2009

Bushy Lake is a diverse habitat that provides a vital refuge for many species of birds and aquatic animals. It is a popular birding hotspot on the American River Parkway (ARP) and is well known for its avian diversity. It is also a great place to catch a glimpse of Western Pond Turtles and North American River Otters. Bushy Lake contains a rich understory of beardless wild rye (*Elymus triticoides*) and Santa Barbara sedge (*Carex barbarae*); dense shrubs, including blue elderberry (*Sambucus nigra ssp caerulea*), coyotebrush (*Baccharis pilularis*)

California blackberry (*Rubus ursinus*), and California grape (*Vitis californica*); and a variety of trees, including species sandbar willow (*Salix exigua*), arroyo willow (*Salix lasiolepis*), Goodding's black willow (*Salix gooddingii*), box elder (*Acer negundo*), Fremont cottonwood (*Populus Fremontii*), and English Walnut (*Juglans regia*). This is in addition to its water supply, which creates a varied habitat in which many animals thrive.

On July 4, 2014, a fire burned 160 acres of the ARP near Bushy Lake that inspired a collaborative restoration project with scientists from Sacramento County Parks Department; California State University, Sacramento (CSUS); ARP Foundation, University of California, Davis (UC Davis); and Yale University (Stevens 2014). Birds are more easily observed than other wildlife and respond quickly to changes in their environment; therefore, they are ideal candidates to measure ecosystem health and improvement during the Bushy Lake restoration project and post-restoration monitoring.



Figure 2: Bushy Lake, Spring 2015

Woodpeckers and Standing Snags

Standing snags (dead trees) are an important part of Bushy Lake's habitat because they provide a valuable resource for bird communities. The creation of many of these snags resulted from the fire on July 4, 2014, (and again on September 15, 2016) which, although detrimental to some aspects of the habitat, increased potential nesting sites for woodpecker species and, in turn, created valuable habitat for many secondary cavity nesters such as Tree Swallows and Western Blue Birds.

Woodpeckers are cavity nesters that make their homes in the trunks and limbs of dead trees due to the hard outer shell of the bark and soft interior (Cornell, 2002).



Figure 4: A Northern Flicker feeding young in a cavity nest
www.paws.org/wildlife/having-a-wildlife-problem/birds/woodpeckers/

or edges of wooded areas to provide them with open ground for foraging. Flickers are unique in the woodpecker world because you can often find them foraging for insects on the ground rather than excavating them from trees. Ants are their main food source (Cornell, 2015). Look for them on the ground or perched upright on horizontal tree branches. Their call is a loud, sharp and high pitched "KYER!" that is hard to miss.

Songbirds

Bushy Lake's varied habitat of dense shrubs and tall trees provides great foraging and nesting sites for many birds including Spotted Towhees (*Pipilo maculatus*) and Black-headed Grosbeaks. Spotted Towhees belong to the Sparrow family and although large, are usually very illusive. You can often hear them foraging for insects in the leaf litter or

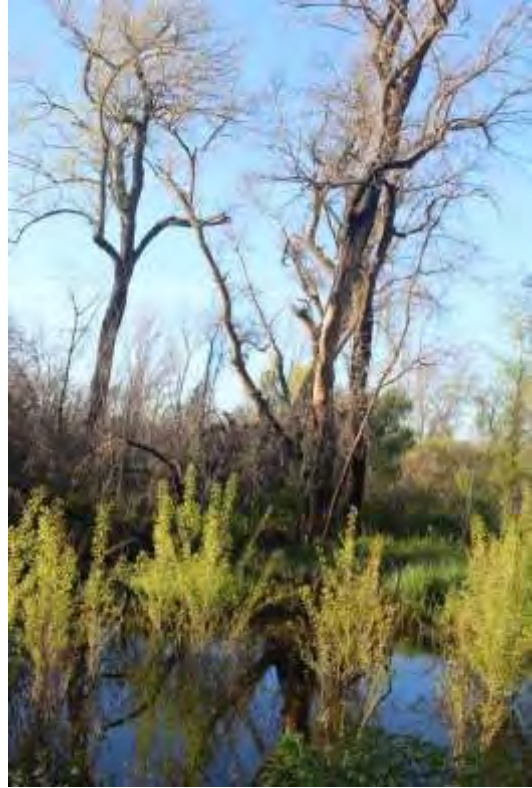


Figure 3: Standing Snag at Bushy Lake, spring 2015
Species of woodpeckers that are often seen at Bushy Lake include the Downy Woodpecker, Nuttall's Woodpecker, Red-breasted Sapsucker and Northern Flicker. Northern Flickers are large, brown woodpeckers with striking plumage. They prefer open woodlands with scattered trees,



Figure 5: Male Spotted Towhee © Jamie Chavez, Santa Barbara County, CA, September 2007



Figure 6: Spotted Towhee nest © Ed Johnson

delivering their harsh buzzing calls from thick shrubs. They build their nests hidden in shrubs close to the ground or on the ground itself (Bartos et al. 2015).

Black-headed Grosbeaks prefer varied habitats of thick understory and tall trees. Their diet consists of insects, seeds and berries. They favor sites in close proximity to water and build their nests in shrubs or small trees (Cornell 2015.)



Figure 7: Male Black-headed Grosbeak © Keith Alderman, Poudre Canyon, Fort Collins, Colorado, June 2010



Figure 8: Black-headed Grosbeak nest
<http://www.wildlifebc.org/2012-nesting-season-photos>

Raptors

Great Horned Owl, Swainson's Hawk, Red-tailed Hawk, Red-shouldered Hawk, and American Kestrel are among the raptor species you are likely to spot at Bushy Lake. Look for Great Horned Owls nestled against the trunks of cottonwoods. Keep an eye out for Red-tailed Hawks and Swainson's Hawks perched atop trees, telephone poles or soaring high above. Great Horned Owls, although common and widespread, prefer wooded areas in close proximity to open fields for hunting. Cottonwoods provide suitable nesting habitat, in which they nest either in tree cavities or in existing nests built by other species (Cornell 2015). On occasion, a breeding pair can be heard calling to one another. The female's call is distinctly higher in pitch than the male. A possible breeding pair has been observed at Bushy Lake, so keep your eyes and ears open, especially in spring!

Swainson's Hawk is common to the area and is listed under the California Endangered Species Act as level S3 vulnerable due to their restricted range and habitat loss (CNDDDB 2015). They prefer open grassland, much of which has been converted to agriculture. These hawks migrate thousands of miles between wintering lands in Argentina to nesting habitat in grasslands of the United States (Cornell 2015). Bushy Lake meets habitat requirements for nesting due to its tall Cottonwoods and close proximity to nearby grasslands. These hawks are most easily recognized in flight by their bi-colored wings or their shrill "krreee!" call.



Figure 9: Swainson's Hawk © Raymond Lee, Edmonton, Alberta, Canada, May 2010

Other Charismatic Residents

Wood Ducks are one of Bushy Lake's most striking and charming avian residents. Unlike other ducks, they nest in larger cavities of trees near marshes or ponds. Wood Ducks do not often use tree cavities used by Woodpeckers because they are not large enough. Instead, Wood Ducks use tree branches that have broken off causing the wood to rot, creating a suitable cavity (Hepp & Bellwood, 1995). Cottonwood found at Bushy Lake creates nesting sites that are just the right size. Although Wood Ducks usually nest in close proximity to water, it has been documented that they will nest up to a mile from the nearest water source (Cornell, 2015).

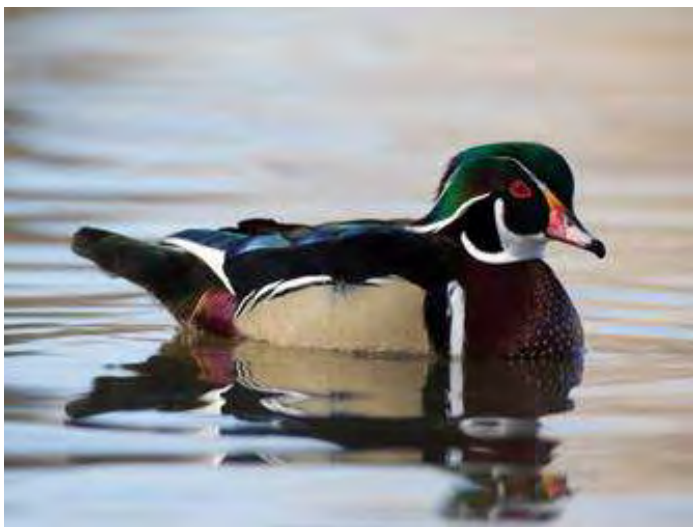


Figure 10: Male Wood Duck © Christopher L. Wood, Colorado, June 2012



Figure 11: Western Pond Turtles at Bushy Lake
photo: Michelle Stevens, May 2016

The Western Pond Turtle (*Actinemys marmorata*) relies on a permanent water source with floating woody vegetation and muddy banks for basking. The Western Pond Turtle has suffered a 99% decline in some areas and is listed as a species of special concern in California. Although this species is not yet recognized as federally endangered in California, its status is currently under review (Center for Biological Diversity 2015). If Bushy Lake is allowed to dry up, the nearly 800-yard distance to the American River might be too far for these turtles to remain in this area. We observed over 20 western pond turtles one early spring day, basking on logs in the tranquil waters of Bushy Lake. Females were observed making their way to the grassland to lay their eggs.

North American River Otters (*Lontra Canadensis*) are a keystone carnivore and another Bushy Lake resident that requires a permanent water source; however, there is little information about their status and range in California. Unlike the Western Pond Turtle, River Otters are able to travel large distances in search of food, mates, or a more suitable living area (Bouly et al. 2015). A pair of otters was observed on morning defending their territory from human observers, making nasal barking noises at us from the water's edge.



Figure 12: River Otters
<http://animals.nationalgeographic.com/animals/mammals/american-river-otter/>

Do you want to get involved with Bushy Lake?

Report your observations! Citizen-science has been proven to be an effective monitoring tool, especially with the popularization of online databases. Ebird.com is a free online database that has become an important source of avian biodiversity data and a popular monitoring tool among many scientific disciplines worldwide (Ebird). The data are openly available and a great way for citizens to make contributions to scientific research. You can also check out Otter Spotter, which is a river otter ecology project focusing on populations on Northern California. You can report your sightings on their website and view maps of sightings reported throughout the state (River Otter Ecology Project).

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Red-tailed hawk: © Bob Gunderson, San Francisco, California, March 2012