



Photo by Christopher Campbell

Glen Canyon Park San Francisco




Photo by Margie Bors

Naturalists enjoying Glen Canyon's boardwalk.

Glen Park is one of the city's 31 significant natural resources areas managed by the San Francisco Recreation and Park Department. In addition to its outstanding views, the park boasts some of the city's largest and most accessible rock outcrops. The park also encompasses Islais Creek, one of four remaining free-flowing creeks in the city. Islais Creek supports a diverse streamside community of thriving willow trees and prehistoric horsetail, and serves as an important resting place for migratory birds. Each year, birds traveling from as far away as Alaska and Tierra del Fuego in Chile depend on Islais Creek as a stopping point as they cross the Golden Gate.

To learn more about Glen Canyon, including getting involved in caring for its natural resources, call **(415) 831-6328** or go to www.parks.sfgov.org and click on Volunteer Program. The Friends of Glen Canyon Park work every third Saturday of the month from 9-12. For additional details, call Jean Conner at 584-8576. You can also check out the California Native Plant Society at www.cnps-yerbabuena.org/ for additional volunteer opportunities.

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 Natural Areas and Volunteer Programs
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Scarce water supply and shallow soils make the rock outcrops a challenging habitat for plant life; only well-adapted species survive. The powdery dudleya, *Dudleya farinosa*, has adapted to this dry environment by storing water in its basal rosette of succulent leaves. Crustose and foliose lichens offer us another example of plant adaptations; these lichens release special chemicals to obtain nutrients from the rock, a process that also contributes to erosion. Reptiles like the San Francisco alligator lizard, *Gerrhonotus coeruleus*, and the common garter snake, *Thamnophis sirtalis*, take advantage of the solar exposure the rock outcrops provide and spend many afternoons basking in the sun's rays.

Glen Canyon Park is well known for its steep slopes and dramatic chert formations. These rock outcrops are Franciscan chert that formed over 200 million years ago from sediments made up of the shells of microscopic ocean-dwelling organisms called radiolaria, which settled to the ocean floor as they died. These layers of sediment were uplifted from the ocean floor by movement of the earth's crust, which also formed the hills of San Francisco.

Glen Canyon's Fabulous Rock Formations



Alligator lizard

Photo by Jon Campo

NATURE'S BOUNTY: A Rich Diversity of Wildlife

Two hundred and fifty years ago, many fresh-water creeks wove through the peninsula, eventually feeding into the Bay and the Pacific Ocean. Today only six above-ground creeks remain in the city, and one of them is Islais Creek in Glen Canyon Park. The creek is named for the Ohlone word "islay," meaning cherry, and refers to the wild cherry trees that grow in the park and throughout the creek's watershed. Although urban development has greatly altered the creek's natural flow, its year-round water and surrounding vegetation continue to function as an important habitat area for animals, including coyotes, resident and migratory birds, and insects.

The creek is also potential habitat for the San Francisco forktail damselfly, *Ischnura gemina*. This native arthropod is a candidate for classification as a

threatened or endangered species by the U.S. Fish and Wildlife Service.

Glen Canyon Park's steep slopes also support thriving grassland and coastal scrub communities, which suggest how much of the northern San Francisco peninsula may have looked before it was settled extensively. Geologically, the rocky chert outcrops add another facet of diversity to the variety of habitats in the park. The western slopes of the park are home to eucalyptus trees, while native lupine species flourish in the eastern slope's grassland community. Glen Canyon Park also hosts a variety of animal life, from the Red-tailed Hawks, *Buteo jamaicensis*, that soar above the rock outcrops to the coyotes, *Canis latrans*, that have been sighted hunting in the grassland.



Photo by David Marotta

The Great-horned Owl, *Bubo virginianus* is more often heard than seen. This widespread owl inhabits Glen Canyon's mature woodlands. By day Great-horned Owls try to stay hidden, usually roosting high up in large trees and using their brown tones to camouflage with bark. By night this large owl flies from perch to perch and can catch its food in pitch darkness. Favorite prey of Great-horned Owls in Glen Canyon include rodents, roosting birds and even skunks!

Great Horned Owl

Glen Canyon is home to Islais Creek, one of six remaining above-ground creeks in San Francisco. These include Mission Creek which still flows into the Bay at China Basin, Grey Fox Creek in McLaren Park, and three in the Presidio called Lobos, Dragonfly, and Tennessee Hollow Creeks.



Photo by Christopher Campbell

Columbine, *Aquilegia Formosa*

The coyote brush, *Baccharis pilularis*, is another unique member of the coastal scrub community. This native bush provides shelter for birds and other small animals and food for insects, but it does not rely on animals for pollination or seed dispersal. The coyote brush is dioecous, which means that its male and female parts occur on separate plants, a relatively uncommon condition in the plant kingdom. This separation of the sexes on to different plants prohibits self-fertilization in the species. Wind carries pollen from the male plant to the female plant, which produces fluffy seeds that can be seen in the fall.



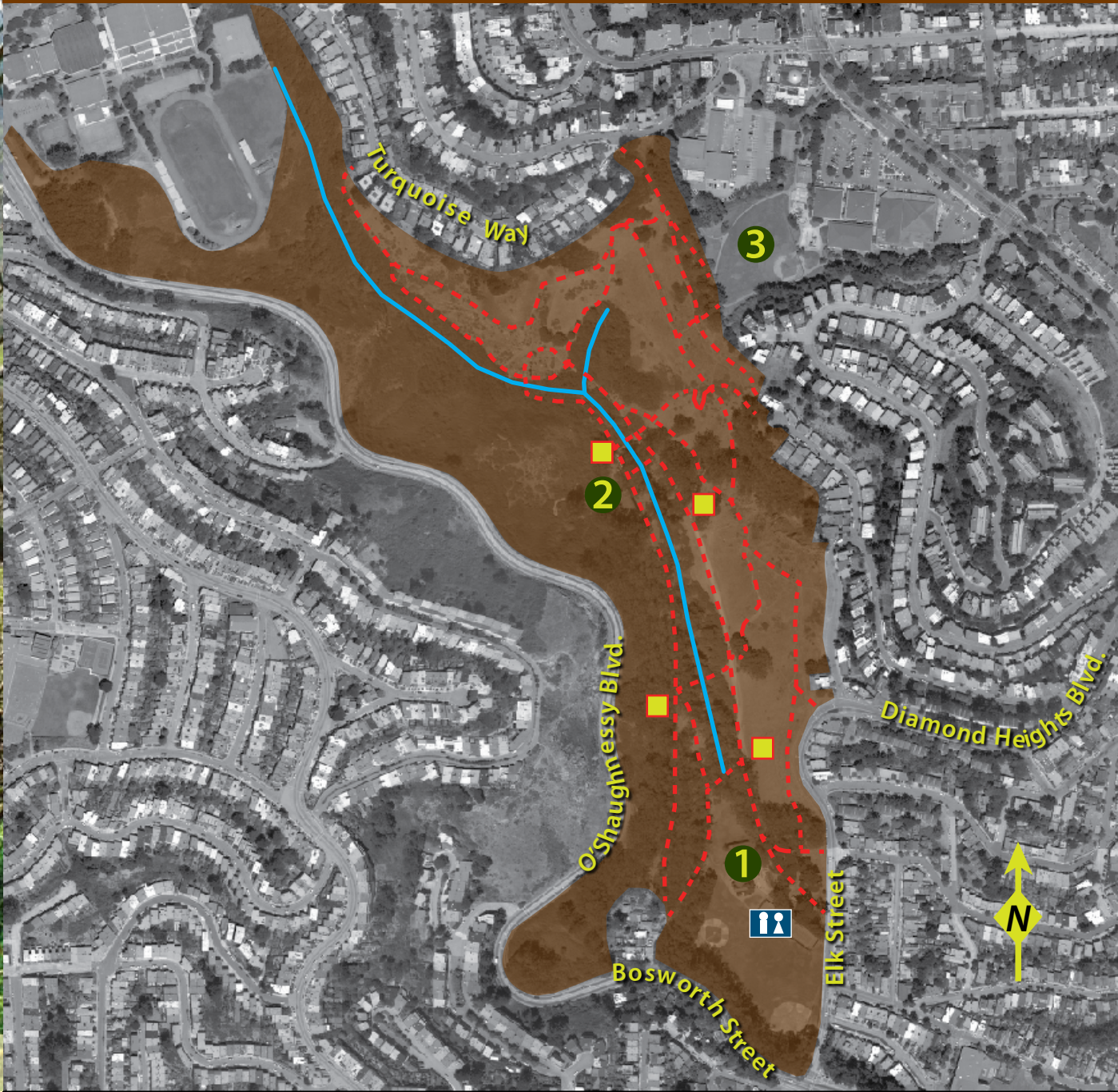
Photo by Margie Bors

Over 250 species of insects are associated with coyote brush.



Photo by Christopher Campbell

GLEN CANYON TRAILS AND POINTS OF INTEREST



Glen Canyon Park is located off of O'Shaughnessy Boulevard and Elk Street

Park Size: 70 acres

Natural Area Size: 60 acres

Points of Interest

- 1 Glen Park Recreation Center
- 2 Silver Tree Day Camp
- 3 Christopher Playground

- - - Recommended Trails
- Islais Creek
- Interpretive Signs
- i i Bathrooms

Red-Tailed Hawk

This widespread and common raptor adapts well to new conditions and thrives in San Francisco. Gracefully soaring red-tails can be spotted hunting voles and gophers in parks, or rats and pigeons anywhere in the city. Glen Canyon has some of the largest grasslands in San Francisco, making it home to field mice, birds, and even ground squirrels and snakes. Good hunting areas and large trees in the Canyon make it possible for several pairs of Red-tailed Hawks to nest in the area. As in all raptors, the female Red-tailed Hawk is one third larger than the male.



Photo by David Marotta

Red-Tailed Hawk, *Buteo jamaicensis*

Red-Shouldered Hawk

The striking orange tones, striped tail and white wing patches of a Red-shouldered Hawk are often the best way to separate it from the more familiar Red-tailed Hawk. The smaller and more local Red-shouldered Hawk is better adapted to hunt within forests than its larger cousin and biggest competitor, the Red-tailed Hawk. The Red-shouldered Hawk is often seen hunting from a power pole or low in tree and hunts for gophers, lizards and grasshoppers. This hawk has become significantly more common in San Francisco in the last 10 to 20 years.



Photo by Yufeng

Red-Shouldered Hawk, *Buteo lineatus*

LAND USE HISTORY:

Hunting Ground to Urban Oasis

People have enjoyed Glen Canyon for hundreds of years. Ohlone Indians hunted on the site, and in the late eighteenth century it became grazing land for Mission Dolores. During Mexican rule in the 1840s, the park site was part of Jose Noe's Rancho San Miguel, and in early American times it was a haven for smugglers and cattle rustlers who allegedly hid in Devil's Cave and Dead Man's Cave.

In the 1850s Adolph Sutro bought 1,200 acres of Rancho San Miguel, including Glen Canyon. In 1886, with the help of school children, Sutro planted pines, Monterey cypress, acacia and blue gum eucalyptus, species which still thrive in the park today.

Glen Canyon had already become the site of the first commercial dynamite manufacturing operation in the United States. Run by the Giant Powder Company, the plant began operating in 1868 but was completely destroyed in an explosion the next year. In 1889 Adolf Sutro's heirs sold the land to the Crocker Real Estate Company, which constructed an amusement park with an aviary, bowling alley, small zoo, and attractions such as a tightrope walk across the canyon and balloon ascents. The area was purchased by the City of San Francisco in 1922 for \$30,000.

In 1941, O'Shaughnessy Boulevard was completed and cut off the watershed on the west side of the park, further diminishing Islais Creek. Silver Tree Day Camp was established that same year. In the 1970s, a plan to widen O'Shaughnessy Boulevard and make it part of the freeway system was defeated by community opposition led by the "Gum Tree" ladies.



Photo by Christopher Campbell

Volunteers working in Glen Canyon