

Don Edwards San Francisco Bay National Wildlife Refuge

by

Carmen Leong , Marge Kolar, and Natalie Doerr

Editor's Note: In March 2003, the National Wildlife Refuge System will be celebrating its 100th anniversary. This system is the world's most unique network of lands and waters set aside specifically for the conservation of fish, wildlife and plants. President Theodore Roosevelt established the first refuge, 3-acre Pelican Island Bird Reservation in Florida's Indian River Lagoon, in 1903. Roosevelt went on to create 55 more refuges before he left office in 1909; today the refuge system encompasses more than 535 units spread over 94 million acres.

Leading up to 2003, the Tideline will feature each national wildlife refuge in the San Francisco Bay National Wildlife Refuge Complex. This complex is made up of seven Refuges (soon to be eight) located throughout the San Francisco Bay Area and headquartered at Don Edwards San Francisco Bay National Wildlife Refuge in Fremont. We hope these articles will enhance your appreciation of the uniqueness of each refuge and the diversity of habitats and wildlife in the San Francisco Bay Area.



Marbled Godwits Photo by Ken Crowley

When you enter the Visitor Center bookstore at the Don Edwards San Francisco Bay National Wildlife Refuge, you may see an unusual book on the shelf. It's a passport book . . . for National Wildlife Refuges. Perusing this book reveals that a vast set of lands, including the Don Edwards San Francisco Bay National Wildlife Refuge, is protected by the National Wildlife Refuge System. If you visit any one of these refuges and bring along your passport book, you can get a stamp for that refuge placed inside.

Regardless of how many refuges we've checked off in our passport books, the Don Edwards San Francisco Bay National Wildlife Refuge remains unique. Here, on a daily basis, people make the trek to the observation platform perched on the highest point of the golden hills along Tidelands Trail. At the top, visitors gaze in awe at the fantastic view of the refuge, its salt marshes, salt ponds, mudflats, sloughs and bay waters. From the Tidelands Trail, visitors can read signs about the geology and natural history of the area, but many may remain unaware of the visionaries who worked hard to create the refuge in the first place.

The history of the refuge really begins with the history of the Bay Area itself. Hundreds of years ago, the San Francisco Bay Area was a very different place. Herds of elk, deer and antelope grazed in the meadows while grizzly bears, wolves, and mountain lions roamed nearby. Ducks and geese by the millions darkened the sky every fall and winter. But after the Spanish explorers reached the area in 1769, the Bay Area was hit with a steady influx of people. With the discovery of gold in the Sierra Nevada in 1848, the San Francisco population skyrocketed from 400 to 25,000 people in two years.

Such rapid growth was not without its effects on the environment. Hydraulic mining for gold drastically changed the hydrology of the Bay and the demand for food

and housing also began to take its toll. Wetlands were converted into crop land and pastureland while market hunters decimated waterfowl and shorebird populations. The industrial age saw improvements to the railroads and highways which in turn led to suburban sprawl. Up went buildings, roads, houses and garbage dumps on drained or filled wetlands. Wetlands were disappearing and the San Francisco Bay was getting smaller. By 1980, 85 percent of the wetlands which had historically surrounded San Francisco Bay were destroyed.

Luckily, these changes did not go unnoticed. In the mid-1960's, a group of local citizens decided too many wetlands had been lost, so they formed a grass-roots organization in hopes of creating a national wildlife refuge in south San Francisco Bay: the South San Francisco Baylands Planning, Conservation and National Wildlife Refuge Committee. At the time, the U.S. Fish and Wildlife Service was not interested in establishing a refuge in an urban area, so the Committee headed straight to Congress, and lobbied them into passing legislation for the establishment of the refuge. After two failed attempts, legislation for the establishment of the refuge passed in 1972 with an approved boundary of 23,000 acres. On October 8, 1974, the San Francisco Bay National Wildlife Refuge became the 19th national wildlife refuge in the state of California and the first urban refuge in the nation. In the mid 1980's, some of the same folks involved with the earlier lobbying effort resolved to protect all the remaining South Bay wetland areas. Through the Citizen's Committee to Complete the Refuge's efforts, Congress authorized the expansion of the refuge to 43,000 acres! Retired Congressman Don Edwards' name was added to the refuge title in 1995 as a tribute to the man who played a pivotal role in the establishment and expansion of the refuge.

Today, the refuge contains 25,902 acres and spans 12 cities and three counties. More than 350,000 visitors enjoy the refuge each year and 10,000 school children, parents, and teachers take part in the refuge's environmental education programs. Hundreds of thousands of waterfowl and shorebirds annually use the refuge wetlands, mudflats, and salt ponds for migrating and wintering habitat. Biologists actively monitor and protect the endangered California clapper rail and the threatened snowy plover. Pickleweed habitat is managed to protect the endangered salt marsh harvest mouse.



California clapper rail

But it's no simple feat being the nation's largest urban wildlife refuge. The refuge must try to balance the complexity of issues involved with providing habitat to endangered species, migratory birds while still addressing the needs of escalating human populations. Yet, the U.S. Fish and Wildlife Service has been able to manage the refuge to fulfill its legislative purposes, which are to preserve and enhance significant wildlife habitat in South San Francisco Bay; to protect endangered and threatened species; to protect migratory birds; and to provide opportunities for wildlife-oriented recreation and nature study. Not only does the refuge protect salt marshes, migratory birds and endangered species, it also protects rare habitats like vernal pools

and lands prime for wetland restoration.

In fact, wetland restoration is one of the top priorities of the refuge. Some of the refuge's most scenic areas were once practically lifeless. For example, the drive to the refuge headquarters in the early 1980's was anything but scenic. Marshlands Road did not exist. Rather, it was an extension of Thornton Avenue, leading up to the CalTrans Toll Plaza on the way to the old Dumbarton Bridge. Between the present Thornton Avenue and the refuge's Visitor Center, the old road bisected white and crusty salt crystalizer beds which were unappealing to the human eye and even less appealing to wildlife. After many consultations with engineers and biologists, refuge staff breached levees, excavated channels, and reintroduced tidal waters into the former salt beds. Today, the road passes through an area of marsh grasses and lush stands of pickleweed filled with the sounds of endangered California clapper rails and migratory birds. La Riviere Marsh, which it is now called, is an example of how partnerships, science, and patience can restore a bleak landscape back to a thriving community full of life.

LaRiviere Marsh before and after



The success of this effort encourage the refuge to expand its wetland restoration efforts to other sites such as New Chicago Marsh in Alviso, Bair Island in Redwood City, and, on a much smaller scale, entry triangle marsh at refuge headquarters. Future habitat restoration may be possible if other salt ponds become available for restoration.

With the help of hundreds of volunteers and other community support, the refuge will continue to provide important habitat for migratory birds and endangered species, along with opportunities for Bay Area citizens to enjoy wildlife-oriented recreation in this highly urbanized estuary. Working together, we will ensure that these lands will continue to benefit present and future generations.

Marge Kolar is the Project Leader of the San Francisco Bay National Wildlife Refuge Complex, and Carmen Leong and Natalie Doerr is the Outdoor Recreation Planner and Park Ranger, respectively, of the Don Edwards San Francisco Bay National Wildlife Refuge.