



SHOREBIRDS OF THE GULF OF THE FARALLONES



The Gulf of the Farallones National Marine Sanctuary holds crucial habitat for vast species of shorebirds. The term shorebird or “waders”, encompasses any bird that relies on beaches or wetlands for habitat to feed and nest. Approximately 80 of the more than 400 species of shorebirds are found within the Sanctuary’s boundaries. Easily recognizable members include the Great Blue Heron, the sandpipers, and the egrets. Within the Sanctuary, shorebirds can be seen at Bolinas Lagoon, Tomales Bay, Bodega Bay, Estero Americano, and Estero de San Antonio.

CLASSIFICATION

Shorebirds belong to the second largest class of vertebrates, the Aves, with nearly 10,000 living species of birds. The order Charadriiformes contains the “true” shorebirds (sandpipers, plovers, stilts, avocets, oystercatchers, skimmers, turnstones, and phalaropes). Generally having long legs and beaks and no webbing between the toes, shorebirds are specifically adapted to their environment. There are many other species living within the Sanctuary that are not considered in the family of “true” shorebirds, including the egrets and duck-like birds with similar feeding strategies.

“True” shorebirds are known for their extraordinary feats of migration, as some travel over 15,000 miles, fly three to four days nonstop, or fly at speeds exceeding 40 miles per hour. During the spring and fall seasons, millions of migratory birds pass through the Bay Area on the “Pacific Flyway.” This is one of four main routes on which birds travel through North America on annual trips to and from their wintering grounds to the south.



Marbled Godwit (*Limosa fedoa*)

GFNMS library



Willet



Western Sanderling



Marbled Godwit

TRUE SHOREBIRDS

The Charadriiformes can be divided on a basis of feeding strategy by species that “probe,” those that “glean,” and those with species-specific feeding behaviors.

Probers

Using long beaks reaching up to several inches, “probers” unearth small crustaceans hidden within the sand or mud. Each species has a unique beak length, limiting the depth at which food can be obtained. This vertical division in feeding strategy allows for the highest number of shorebird species to feed in the same area.

There are nearly 40 members of the Sandpiper family that have been seen within the Sanctuary, such as the elegant American Avocet, two species of dowitcher, eight species of sandpipers, and the Black-necked Stilt. These species probe about the shores feeding on buried clams, worms, crustaceans, and small fish. A notable “prober”, the Long-billed Curlew, has the longest beak of any shorebird reaching up to nine inches.

Gleaners

In contrast to the “probers,” the “gleaners” scurry along the beach feeding on invertebrates on the sand surface. The “gleaners” display a horizontal division of foraging, based on their leg length. The longer-legged species are able to travel farther into the surf and are able to feed on items inaccessible to other shorebirds. Common Western Sanderlings gather in large numbers to glean the beach. Once an abundant species along the Pacific coast, the threatened Western Snowy Plover has declined to less than 1,500 individuals. Another plover, the Killdeer, is best known for its screeching calls and enacting an injury to lure predators away from its nest.

Species-unique strategies

There are many other feeding strategies of shorebirds, such as that of the Black Oystercatcher which use a long thick triangular beak to sever open shells of mussels and clams. The Black Skimmer has a beak with a greatly enlarged lower half used to catch fish while flying just above the water’s surface. The appropriately named turnstones wander beaches turning over beach debris in search of invertebrate species to feed upon.



Janice Hall

Snowy Egret (*Egretta thula*)

OTHER SHOREBIRDS

Loons, grebes, herons, ducks, and rails are similar to “true” shorebirds, yet are classified in five other orders.

The threatened Black Rail can be found in Tomales Bay. Faced with rapidly diminishing habitat, rails are now rarely found in the salt marshes of bay and coastal communities.

Seven species of herons, egrets, and bitterns live in the Sanctuary. These long-necked wading birds are found in wetlands and along the shoreline. The Great Egret is identified by its white body, yellow beak, and long black legs; the Snowy Egret is very similar in appearance, with a smaller body size, black beak, and yellow feet. Using dagger-like bills, these predatory birds quickly snatch up frogs, fish, crayfish, and other aquatic life.

Six species of grebe make their winter home in the Sanctuary, including the Eared, Horned, and Western Grebes. These birds are excellent swimmers and divers. They have been known to use their wings to “fly” underwater as they hunt for small fish.

Four species of loon spend time within the estuaries along California during their migration. Known for their eerie wails and strange laughter, these birds are expert hunters of fish and crustaceans.

More than twenty species of duck-like birds inhabit the Gulf of the Farallones and surrounding waters, with many of them present year-round. The Canada Goose is a seasonal visitor to the area along with the elegant Northern Pintail. Diversity is quite strong in these duck-like birds, with species displaying great variation in color, size, shape, and feeding behavior. Some common feeding methods include dabbling for small invertebrates (mallards), feeding on vegetation (geese), and diving for fish (mergansers and scoters).



CONSERVATION

At the end of the 19th century, millions of herons and egrets were slaughtered annually for their elegant feathers used in the fashion industry. Their magnificent breeding plumage was worth more than their weight in gold. This harmful activity provoked the first public environmental action by banning the sale of plumes, followed by the foundation of the Audubon Society and passing the Federal Migratory Bird Treaty Act (1918).

As the increase in human coastal development continues, native bird species are on the decline; 33 bird species are listed as endangered or threatened in the state of California as of October 2001, with almost 250 birds listed worldwide. Traveling miles along the coast each day, the shorebirds are specifically vulnerable to ecological disturbances such as oil spills, the presence of toxic chemicals, and the resulting declines within the food web.

Marine Sanctuary volunteers monitor the coastline for live and dead marine life, and they are often the first to detect oiled birds from an oil spill. Through the Sanctuary’s BeachWatch and SEALS programs, the general public can not only expand their knowledge of the environment marine life live within, but can also help to preserve and protect it for future generations.

For more information on the Gulf of the Farallones National Marine Sanctuary, shorebirds, or how to get involved contact:

Gulf of the Farallones National Marine Sanctuary

www.sanctuaries.nos.noaa.gov

Farallones Marine Sanctuary Association

www.farallones.org or (415) 561 - 6625



Point Reyes Bird Observatory

www.prbo.org

