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## FARALLON NATIONAL WILDLIFE REFUGE

*By Joelle Buffa and Eileen McLaughlin*



*Editor's Note: In March 2003, the National Wildlife Refuge System will be celebrating its 100<sup>th</sup> 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.*

On a clear day looking west from the East Bay Hills, Cliff House or the Marin Headlands you spot a "farallon", Spanish for "a rocky promontory rising from the ocean". The name seems to fit in English too, as these islands on the edge of the horizon seem "far" and "alone". Located approximately 28 miles west of San Francisco, the Farallon National Wildlife Refuge includes four groups of islands totaling 211 acres.

A 1909 presidential executive order by Teddy Roosevelt designated North and Middle Farallon Islands, and Noonday Rock as the Farallon Reservation, a "preserve and breeding ground for native birds." In 1969, the South Islands were added to the island group now known as the Farallon National Wildlife Refuge, and the US Fish and Wildlife Service began more active management. Point Reyes Bird Observatory (PRBO) and the U.S. Fish and Wildlife Service (FWS) established a partnership in 1971 to protect the Refuge. PRBO has been monitoring wildlife populations and providing caretaker duties ever since. In 1973, all of the islands, except for Southeast Farallon Island (SEFI), were Congressionally designated as Wilderness. A small field station on SEFI, comprised of a half-dozen buildings inherited from the former Coast Guard and Navy occupants, provide housing, power, and water facilities for a handful of PRBO and FWS personnel.

### SEASONS OF THE FARALLON ISLANDS

Weather and wildlife dictate island rhythms, dividing the year into three biological seasons. Personnel rotate with the seasons, applying their particular biological expertise

to the wildlife at hand. Boats, operated and organized by a group of volunteer skippers known as the “Farallon Patrol”, bring out supplies and personnel every two weeks, weather permitting.

**Winter:** From December through February fierce storms, up to 50-knot winds, and 25-foot seas pummel the islands from time to time. Rain or shine, biologists track the hundreds of pupping northern elephant seals. After being wiped out by seal hunters in the early 1800s, elephant seals returned in 1959 and have been breeding on the Refuge for over 25 years. Pregnant females begin arriving in December. The first pup of the season is usually born around Christmas, and pupping peaks in January. The humongous two-ton bulls also return to claim their breeding territories at this time. Their guttural bellows overpower the pleading bleats of the pups, who struggle to remain close to their mothers amidst the mating activity.

Besides elephant seals, four other species of pinnipeds use the refuge as a haul-out site year round: California sea lion, Steller’s sea lion, harbor seal, and northern fur seal. They feed in the waters surrounding the refuge which are part of the Gulf of the Farallones National Marine Sanctuary (managed by the National Oceanic and Atmospheric Administration).



*Steller's sea lion*  
Photo by © Brian O'Neill

**Spring/Summer:** March ushers in the seabird season, which lasts into August. Weather is often windy and foggy. The long days are filled with monitoring population sizes and reproductive success of the 12 seabird species that nest on the island.

The refuge supports the largest seabird breeding colony south of Alaska. It contains a whopping 29% of California's breeding seabirds, including the world's largest breeding colonies of ashy storm-petrel, Brandt's cormorant, and western gull. Other seabird species that nest on the refuge are tufted puffin, common murre, pigeon guillemot, double-crested and pelagic cormorants, Cassin's and rhinoceros auklets, Leach's storm petrel, and black oystercatcher.



*Pigeon Guillemot*  
Photo by © Brian O'Neill

Nearly 250,000 birds lay their eggs and raise their young each spring and summer on the refuge, shattering the myth of a peaceful island paradise. Western gulls screech and dive bomb any moving human or bird. The eerie songs of Cassin's auklets and storm-petrels join the chorus at night as they arrive at their underground burrows with bills full of food for their young. Pigeon guillemots whistle like sentinels from the rocks outside their nesting

crevices. Although impressive, this is a mere fraction of the seabirds that once nested here, before egg-hunters in the late 1800s decimated this colony. An estimated 400,000 common murrens alone historically bred on the Farallon Islands. Although their populations are still diminished (approximately 150,000 murrens breed on the refuge), they are slowly increasing. But sheer numbers fail to convey the extraordinary wildlife dramas that play out, such as the annual fledging of murre chicks, which Refuge Manager, Joelle Buffa described after a July 2000 visit:

*“From the observation blind I watched a flightless murre chick leave its 300-foot cliff-side nest for a life at sea. First, it dodged jabs from the sharp beaks of neighboring adults while scurrying through the crowded colony to cliff’s edge. Then, encouraged by its parent, it tumbled over ledges, scrambled over rocks, barely missing the hovering predatory gulls, and disappeared into the crashing surf after its final free-fall. Suddenly, the chick was a cork popping out of the ocean foam. It paddled after its father, who would teach it to find tiny fish in a vast ocean. It made my problems seem small.”*

June and July are also pupping season for Steller’s sea lions. The refuge and surrounding waters have been designated critical habitat for this endangered species. Northern fur seals were completely eliminated from the Farallon Islands in the 1800s, and just recently (1996) began breeding again on the refuge. Several pups are born each year in the summer. Although the Farallon Islands are not considered a breeding area for California sea lions and harbor seals, they sometimes pup on the refuge, especially during warm water years.

**Fall:** From September to November the refuge is dominated by transient populations of wildlife. The Farallon Islands are famous in ornithological literature for the unusual species of songbirds and other landbirds that occur during fall (and to a lesser extent spring) migration. Many bird species never before recorded in California were seen first on the Farallon Islands, which boasts a bird list of over 400 species. White sharks, attracted to Farallon waters by the abundant seal population, are most numerous in fall, and biologists study their populations and predatory behavior from vantage points on the refuge.

**Maintenance, the 4<sup>th</sup> Farallon Season:** Our calmest and clearest weather generally occurs in the fall. Most breeding species leave and those that remain are less sensitive to disturbance. This is why mid-August through November is also the “Maintenance Season”. This is a time for repairing facilities and conducting habitat restoration projects such as non-native plant control. Nearly two centuries of human use by fur sealers, egg hunters, lighthouse keepers, Weather Service, US Coast Guard, and wartime military brought non-native plant and mammal species to SEFI.. Some plant species cover up seabird burrows and crowd out the native, endemic Farallon weed (*Lasthenia maritima*), used by seabirds for nesting material. These weeds are controlled by herbicide and hand-removal. Cats and European rabbits were removed in the early ‘70s, but non-native house mice remain. Mice have direct and indirect negative impacts on declining seabirds

- ashy storm-petrels and Cassin's auklets - so the FWS plans to eradicate house mice when funding becomes available.

## HUMAN PRESENCE IN THE FARALLON NWR

By any human standard, it is odd, even contrary, that the habitat and meteorologic conditions of the Farallon NWR actually do provide for survival of its bounty of wildlife. It is as unfriendly to humans as human presence is unfriendly and interruptive to its wildlife. Researchers and refuge managers continuously balance efforts managing habitat and monitoring wildlife with practices minimizing their own human impact. Structures are minimal and living amenities spare. The work progresses through strict rationing of resources, manual skill and strength, and use of minimally-invasive technologies. Solar panels now produce 90% of power needs, and all water needs are met by catching and filtering rain water.

Safe transport of humans and supplies requires complicated logistics, including a 5-7 hour boat ride (which is often canceled due to wind or waves). Because there are no docking facilities, small loads of people and cargo are shuttled in a Boston Whaler, from boat to an industrial crane, which lifts everything on-shore. It is very hard to imagine how seal and egg-hunters even broached these islands and, at the same time, too easy to recognize their extreme and deadly risks. In a place where common murrelets fledge only by surviving the brute impact of 100' falls and where only the elephant seals can ignore the hail, life for all present is raw and rugged.

Fortunately, the varied wildlife thriving upon the islands' rocky cliffs and shores is highly viewable from the decks of the nature-tourism boats that regularly circle the Farallon NWR. These tours offer excellent opportunities to observe, absorb and enjoy this national, natural treasure.

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