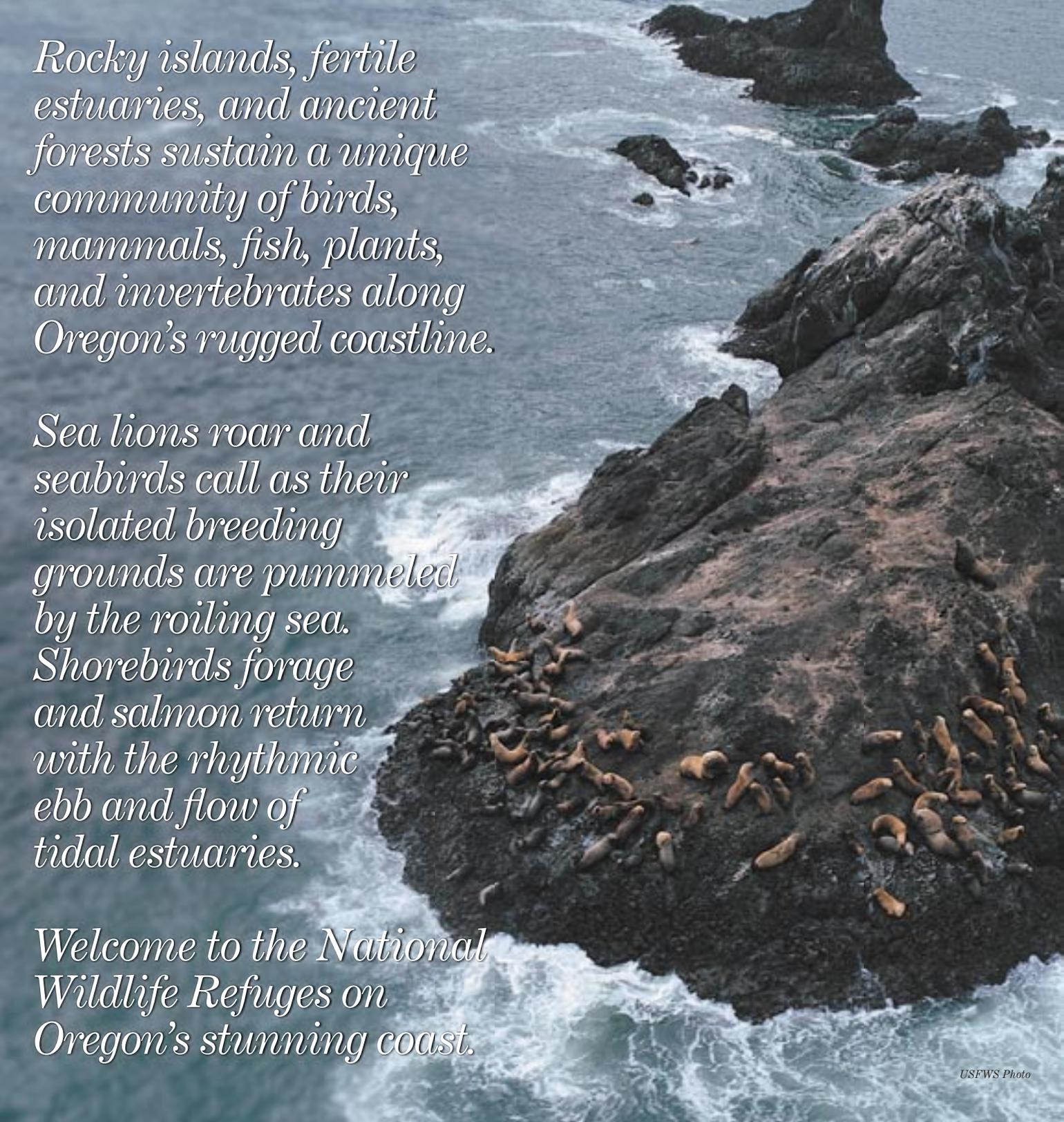


U.S. Fish & Wildlife Service

# Oregon Coast

*National Wildlife  
Refuges*



An aerial photograph of a rugged coastline. The ocean is a deep blue-grey, with white foam from waves crashing against dark, jagged rock formations. In the foreground, a large, dark rock outcrop is densely populated with hundreds of brown sea lions, some resting and others appearing to be in motion. The text is overlaid on the left side of the image in a white, serif font.

*Rocky islands, fertile estuaries, and ancient forests sustain a unique community of birds, mammals, fish, plants, and invertebrates along Oregon's rugged coastline.*

*Sea lions roar and seabirds call as their isolated breeding grounds are pummeled by the roiling sea. Shorebirds forage and salmon return with the rhythmic ebb and flow of tidal estuaries.*

*Welcome to the National Wildlife Refuges on Oregon's stunning coast.*

## The Oregon Coast Refuges Protect a Variety of Habitats



David Pitkin/USFWS

The relatively small land area protected by the six National Wildlife Refuges (NWRs) along the Oregon coast belies their tremendous value to fish and wildlife. Oregon Islands and Three Arch Rocks NWRs support some of the most important seabird nesting colonies in the United States. Over a million seabirds, including murrens, puffins,

cormorants, and storm-petrels nest here. Without these protected nesting areas, many seabird populations would be in jeopardy.

Nestucca Bay, Siletz Bay and Bandon Marsh NWRs provide vital feeding and resting habitat for shorebirds and waterfowl during their migrations. The protection and restoration of saltmarsh habitats in these refuges benefit the recovery of wild salmon, steelhead and cutthroat trout. Cape Meares NWR protects old-growth forest used by marbled murrelets, peregrine falcons, bald eagles, and songbirds.

The Oregon Coast Refuges are part of the National Wildlife Refuge System, a network of over 540 refuges set aside specifically for fish and wildlife. Managed by the U.S. Fish and Wildlife Service, the System is a living heritage, conserving fish, wildlife and their habitats for generations to come.



## Wildlife Viewing Highlights

Visiting the refuges and adjacent viewing areas along the Oregon coast is rewarding year-round as each season brings different wildlife viewing opportunities.

### Spring

Spring is one of the best times to visit. During April and May, thousands of shorebirds stop in coastal estuaries to rest and feed on their migration north to Arctic breeding areas. Common murrelets, tufted puffins, pigeon guillemots, and Brandt's, pelagic and double-crested cormorants can be seen nesting on many of the coastal rocks and islands. Northward-migrating gray whales are visible from March through May from mainland viewpoints overlooking Oregon Islands NWR. Watch for the arrival of endangered California brown pelicans.



*Western sandpipers  
at Bandon Marsh*  
Dave Ledig/USFWS

David Pitkin/USFWS

### Summer

Seal and sea lion numbers peak, and young seabirds fledge from July through August. Peregrine falcons and bald eagles can be observed hunting nesting seabirds.



*Harbor seals* David Pitkin/USFWS

### Fall

Thousands of shorebirds migrate along the Oregon coast in the fall, using estuaries as stopover habitat to feed and rest. Shorebird numbers peak in September as they fly south to wintering areas. Bandon Marsh is an excellent place to watch for migrating shorebirds and waterfowl.

### Winter

Sea ducks, waterfowl and waterbirds are abundant during the winter. Common species include surf, white-winged and black scoters, buffleheads, common and Pacific loons, and western, horned, and red-necked grebes. Estuaries host wintering ducks, geese, and a variety of raptors. Gray whales migrate south along the coast in December and January on their journey to calving grounds in the coastal lagoons of Baja Mexico.

*Brown pelican* Dave Ledig/USFWS



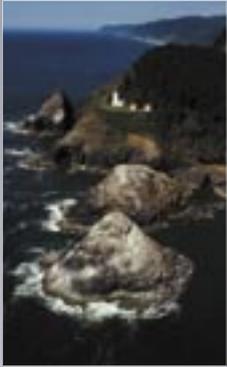
## Oregon Islands National Wildlife Refuge

Oregon Islands NWR, a designated National Wilderness Area, includes 1,853 rocks, reefs, islands, and two headlands spanning 320 miles of the Oregon coast. Thirteen species of seabirds nest here, including common murre, tufted puffins, Leach's storm-petrels, rhinoceros auklets, Brandt's and pelagic cormorants, pigeon guillemots, western gulls and black oystercatchers. Pinnipeds (seals and sea lions) use the refuge to breed and haul out.

To protect sensitive wildlife, all offshore rocks, reefs and islands are closed to public entry. However, spectacular viewing opportunities exist at numerous mainland locations along the coast.

Coquille Point, a mainland unit of Oregon Islands NWR, is open to the public. The point overlooks a series of offshore rocks that provide habitat for harbor seals and thousands of seabirds. A paved trail winds over the headland and offers interpretive panels on wildlife and Native American history. Stairways to the beach are located at opposite ends of the headland and allow visitors to make a loop on the beach when tides permit. Coquille Point can be reached by driving west on 11th Street in Bandon until you reach the beach.

## Visitor Opportunities



David Pitkin/USFWS

## Did You Know...



Shell Island at Simpson Reef  
David Pitkin/USFWS

...that Simpson Reef at Cape Arago is the largest marine mammal haulout site on the Oregon coast? Simpson Reef hosts four pinniped species including harbor seal, northern elephant seal, California sea lion, and Steller sea lion.



Pigeon guillemots in courtship behavior  
David Pitkin/USFWS

...that Oregon's population of nesting seabirds is larger than California's and Washington's combined?

Common murre colony  
David Ledig/USFWS



## Three Arch Rocks National Wildlife Refuge

One of the Oregon coast's best known landmarks, Three Arch Rocks NWR and Wilderness Area lies half a mile offshore from the community of Oceanside.



This 15-acre refuge supports Oregon's largest breeding colony of tufted puffins and the largest breeding colony of common murrelets south of Alaska. Three Arch Rocks NWR is also the only breeding site for threatened Steller sea lions on the north coast of Oregon.

*Tufted Puffin*  
Roy W. Lowe/USFWS

## Visitor Opportunities

Oceanside Beach and Cape Meares NWR provide excellent views of Three Arch Rocks. To prevent disturbance to extremely sensitive seabirds and marine mammals, waters within 500 feet of this refuge are closed to all watercraft from May 1st through September 15th each year. The refuge rocks are closed to public entry year-round.

*Three Arch Rocks NWR*  
David Pitkin/USFWS

# Did You Know...

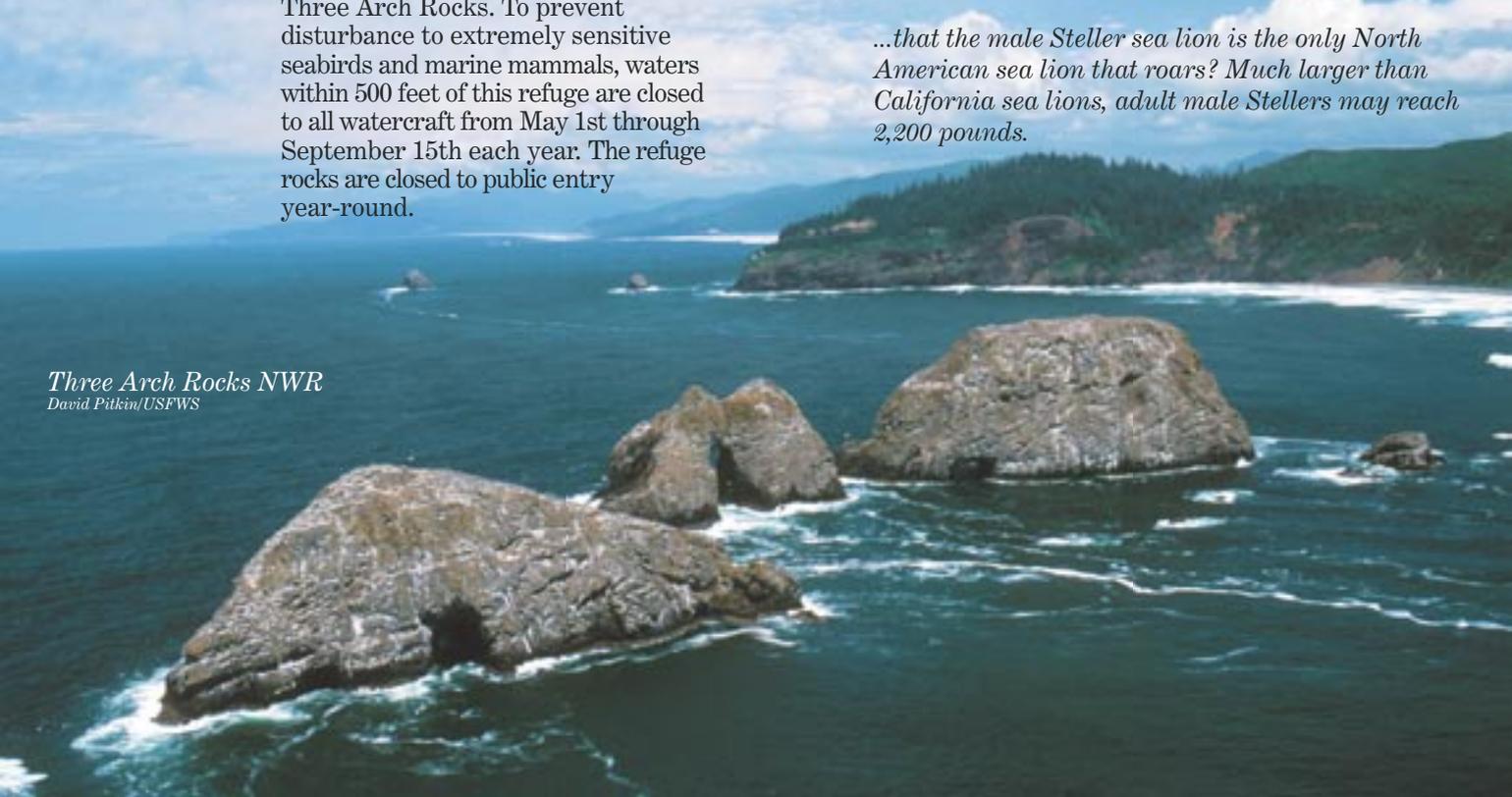


David Pitkin/USFWS

*...that common murrelets use a distinct body language which allows them to get along with their neighbors in crowded nesting colonies? A murrelet can share one square foot of space with six others!*

*...that in 1907 Theodore Roosevelt designated Three Arch Rocks as the first National Wildlife Refuge west of the Mississippi River to protect nesting seabirds?*

*...that the male Steller sea lion is the only North American sea lion that roars? Much larger than California sea lions, adult male Stellers may reach 2,200 pounds.*



## Cape Meares National Wildlife Refuge

Cape Meares NWR protects one of the few remaining stands of coastal old-growth forest in Oregon. Located on Three Capes Scenic Route west of Tillamook, Cape Meares was acquired from the U.S. Coast Guard in 1938 and was designated a Research Natural Area in 1987.



David Pitkin/USFWS

Huge Sitka spruce and western hemlock, some over 200 feet tall and hundreds of years old, provide habitat for many bird species, including threatened bald eagles and marbled murrelets.

## Visitor Opportunities

Interpretive overlooks at adjacent Cape Meares State Scenic Viewpoint provide opportunities for viewing seabirds, resident peregrine falcons, and marine mammals.

From Cape Meares, Three Arch Rocks NWR and Oregon Islands NWR can be seen. The popular Oregon Coast Trail runs through the refuge.



*Rocks, reefs and islands are included in Oregon Islands NWR.*

## Did You Know...

*...that the peregrine falcon can reach speeds up to 240 miles per hour in a dive while pursuing prey, making it the fastest animal in the world?*



*...that Cape Meares Lighthouse has been in operation since 1890 and has the shortest light tower (38 feet) on the Oregon Coast?*



David Pitkin/USFWS



© Matt How

*...that gray whales migrate over 2,000 miles from their summer feeding areas in Alaska to their winter calving grounds in Mexico? Migrating whales can be seen from Cape Meares December through May.*

David Ledig/USFWS

## Nestucca Bay National Wildlife Refuge

Established in 1991, Nestucca Bay NWR is a mosaic of managed pastures, wooded uplands, riparian wetlands, saltmarsh, and open meadows. Refuge habitats provide safe haven for waterfowl, shorebirds, raptors, mammals, anadromous fish and amphibians.



*Semidi Islands Aleutian cackling geese*  
David Pitkin/  
USFWS

Nestucca Bay supports the only coastal wintering population of dusky Canada geese and the world's only population of Semidi Islands Aleutian cackling geese. The Aleutian cackling goose was once endangered because fur trappers introduced arctic foxes to their nesting islands in Alaska, but the population has since rebounded to over 60,000 birds. Nestucca Bay and its tributaries also support large runs of Chinook and coho salmon, cutthroat trout, and steelhead.



## Neskowin Marsh Unit

The Neskowin Marsh Unit of the refuge contains the southernmost coastal sphagnum bog habitat on the Pacific coast. This rare ecosystem is home to unusual and beautiful plant species such as the carnivorous sundew and bog cranberry. Wildlife of Neskowin Marsh includes coho salmon, frogs, salamanders, reptiles, songbirds, waterfowl, black bears, deer, river otters, and wading birds.



*Sundew and Bog cranberry*  
David Pitkin/USFWS

Core samples obtained at Neskowin Marsh reveal many alternating layers of peat and sand, indicating a long history of tsunami activity along the Oregon coast. These sand layers were carried into the marsh when tsunamis swept over the coastal dunes. The Neskowin Marsh core samples have provided perhaps the best tsunami sands records available anywhere within the Cascadia Subduction Zone.

To protect the extremely fragile nature of the Neskowin Marsh ecosystem, this unit is closed to public use.

## Visitor Opportunities

When construction is complete, an accessible trail to Cannery Hill will offer visitors to the Nestucca Bay Unit an exhilarating panoramic view of the Pacific Ocean, Haystack Rock, Nestucca Bay, and the Little Nestucca River watershed.



*Pacific tree frog*  
David Pitkin/USFWS

## Siletz Bay National Wildlife Refuge



*Western  
sandpipers*  
Dave Ledig/USFWS

Established in 1991, Siletz Bay NWR is located just south of Lincoln City. This estuarine refuge protects coastal habitats including saltmarsh, brackish marsh, tidal sloughs and mudflats, and coniferous and deciduous forest. These habitats are essential to shorebirds, wading birds, waterfowl, anadromous fish including coho and Chinook salmon, steelhead, cutthroat trout and other estuarine-dependent finfish and shellfish.

Tidal marsh protection and restoration were priority goals for establishing this refuge. A 100-acre restored marsh at Millport Slough, with its sinuous tidal channels and abundant wildlife, can be seen by visitors from U.S. Highway 101.



*... that bald eagles are one of nature's best opportunists? Along the Oregon coast, bald eagles feed on other birds, especially waterfowl and seabirds.*

*Bald eagle and nestlings*  
David Pitkin/USFWS

*...that estuaries, where fresh and salt water mix, are among the earth's most productive habitats? Acre for acre, they produce four times more plant material than a good hay field. This material forms the base of the estuarine food chain.*

David Pitkin/USFWS



## Did You Know...

*...that young salmonids venture into tidal channels in saltmarshes to feed on insects, tiny crustaceans and other invertebrates? Food is so abundant here that they can add 6 percent to their body weight each day. That's comparable to a 165-pound person gaining 10 pounds a day!*



© Gary Whitley

## Bandon Marsh National Wildlife Refuge

Bandon Marsh NWR, located near the mouth of the Coquille River, was established in 1983 for its value as stopover habitat for migratory shorebirds and waterfowl. The Bandon Marsh Unit west of U.S. Highway 101 protects the largest remaining tidal saltmarsh within the Coquille River estuary.

## Ni-les'tun Unit

The Ni-les'tun Unit on the east side of U.S. Highway 101 protects intertidal marsh, forested wetlands, upland forest, and grasslands along the lower Coquille River. This unit provides resting and feeding areas for migratory waterfowl, wading birds, songbirds, raptors, amphibians, coho salmon and cutthroat trout.

## Visitor Opportunities

The Bandon Marsh Unit is renowned for its shorebird viewing opportunities. Public uses include photography, environmental education and interpretation, clamming, and waterfowl hunting. The viewing deck at Riverside Drive and the Ni-les'tun Unit Overlook are open to the public from sunrise to sunset.



Oregon State University  
Horner Collection (#6580)

The Ni-les'tun Unit of Bandon Marsh is rich both biologically and culturally. Inhabited for thousands of years by the Coquille Indians, the Tribe chose the name "Ni-les'tun" which means "Small Fish Dam in the River." This refers to their ancestral method of using weirs to capture fish along the lower Coquille River. Remnants of the weirs are still visible today.

In the early 20<sup>th</sup> century, dike construction transformed the saltmarsh into pasture for cattle. The 21<sup>st</sup> century will bring more change to this dynamic marsh with a 400-acre project restoring natural hydrology and diversity. With restoration, an influx of saltwater and freshwater welcomes a new suite of wildlife including anadromous fish, shellfish, and thousands of migrating shorebirds and waterfowl.

## A History of Wildlife Conservation

By the early 1900s, many seabird colonies on the west coast were in danger of annihilation. During the California Gold Rush, egg hunters harvested millions of eggs annually to supply restaurants in San Francisco and the gold fields. Adult birds were slaughtered for target practice as weekend sport.

In the early 1900s, pioneer naturalist and photographer William L. Finley and his partner Herman Bohlman visited the Oregon coast and documented the devastation. They launched open boats through heavy surf and risked life and limb to haul heavy camera equipment up and down steep, treacherous cliffs. Finley informed President Theodore Roosevelt of the national importance of this seabird nesting area, convincing him to issue an Executive Order in 1907 designating Three Arch Rocks the first National Wildlife Refuge on the west coast. Oregon Islands National Wildlife Refuge followed in 1935.

*H.T. Bohlman and  
William Finley  
preparing to  
photograph murre  
colony at Three  
Arch Rocks, 1903.  
Oregon Historical Society  
Negative # Finley A-2520*

## Wildlife First



*Common  
yellowthroat  
David Pitkin /USFWS*

Today, the dedicated staff of the Oregon Coast NWR Complex honor the historic work of Finley and Bohlman by protecting sensitive fish and wildlife populations and restoring habitat.

Refuge rocks, islands, and other sensitive habitats are managed by minimizing human presence and providing opportunities to view wildlife from a distance. Wildlife-dependent public use is encouraged where it is compatible with the primary goal of providing for the needs of wildlife first.

To ensure that habitats are being managed effectively, refuge biologists conduct monitoring surveys for seabirds, raptors, waterfowl, amphibians, small mammals, fish, and plants.



*Pacific giant  
salamander  
David Pitkin/USFWS*



*Viewing marine mammals at Cape Arago  
Row W. Lowe/USFWS*

## Biology By Air

Many land management objectives occur at scales that can be challenging to grasp from ground level. A good aerial photograph is worth thousands of words when conveying the big picture perspective of how all the pieces of a landscape fit together.

How do you count 50,000 tightly-packed common murrens on an inaccessible offshore rock without disturbing them? Surveying birds from a high altitude using aerial photographs is often the only accurate, low-impact way to do it. And when you have 320 miles of coastline to survey, it's the only efficient option.

*Aerial photo survey of seabird populations over Three Arch Rocks NWR.*

*David Pitkin/USFWS*

*Steller sea lion rookery*

*David Pitkin/USFWS*



## Biological Investigations

The coastal refuges offer unique opportunities to study plants and animals in pristine or relatively undisturbed habitats. These field studies seek to answer questions ranging from the needs of a single species to how an entire ecosystem functions.



*Juvenile coho salmon* *David Pitkin/USFWS*

Biologists conduct innovative research in many coastal habitats. Oregon Islands NWR currently hosts the only Leach's storm-petrel research on the U.S. west coast. Ground-breaking fisheries research is being conducted on Siletz Bay, Nestucca Bay and Bandon Marsh NWR's. Native plant communities on coastal refuges provide models for habitat restoration elsewhere on the Pacific coast.



*Leach's storm-petrel chick*  
*Roy W. Lowe/USFWS*

*One example of an aerial survey that biologists use to gather information on a difficult to see species. How many brown pelicans can you count in the rocks and driftwood?*





*Spawning coho salmon* David Pitkin/USFWS

## Restoration

### *Millport Slough marsh restoration project before and after:*

*Photos David Pitkin/USFWS*



While some refuge lands are acquired in a pristine state, other lands have been modified and require habitat restoration to reach their full biological potential. Restoration can take many forms, including planting native vegetation and restoring natural hydrological function to streams and tidal marshes using heavy equipment.

Oregon has lost over 75% of its saltmarshes, vital habitat for many species of wildlife and fish such as the coho salmon. Habitat restoration efforts have focused primarily on these diked tidal wetlands at Siletz Bay, Nestucca Bay and Bandon Marsh.

Removing the dikes brings back the influence of daily tidal cycles and restores the natural hydrology of the marsh. Native plant species recolonize the marsh, sinuous tidal channels re-form, and fish return to inhabit historic and newly-created breeding and rearing areas.

## Environmental Education



*Ram Papish /USFWS*

The coastal refuges serve as fascinating and enriching outdoor classrooms. Volunteers and Friends Groups work together with refuge staff to open the captivating world of wildlife to visitors of all ages through interactive environmental education programs and interpretive events, both in the classroom and in the field.

Classroom visits bring the drama of the natural world into the lives of students. The National Junior Duck Stamp Program, open to all students, teaches about waterfowl and conservation through the visual arts. The Shorebird Sister Schools Program provides students in-class lessons on shorebird adaptations, behavior, migration, habitat and conservation. Field trips to a local estuary complete the program, as students head outdoors to birdwatch and investigate mudflats for shorebird prey.



*Students learning bird identification skills.*

*Ram Papish /USFWS*

## Wildlife Watching Opportunities



## Viewing Wildlife



*Steller sea lion bull*  
David Pitkin/USFWS

Plan your visit according to the season, time of day, and tides. Wildlife is generally more active in the mornings and early evenings. Use binoculars and spotting scopes, and bring a field guide to help you identify species.

Refuge regulations prohibit all activities that result in harassment of wildlife. Harassment includes **any** disturbance that causes wildlife to change their normal behavior.

Boaters are asked to stay at least 500 feet away from all rocks, reefs and islands. Airplane pilots are encouraged to follow FAA recommendations to fly more than 2000 feet above Oregon Islands and Three Arch Rocks NWRs.

**PLEASE REMEMBER!** To help protect sensitive wildlife, **ALL COASTAL ROCKS SURROUNDED BY WATER AT MEAN HIGH TIDE ARE CLOSED TO THE PUBLIC.**

## Caution

Coastal areas, with their steep cliffs, strong currents, heavy surf, and cold water can be extremely dangerous. Exercise caution during your visit. Stay away from cliff edges and observe posted warnings. Avoid climbing on driftlogs as they can roll in the surf at any time. Consult weather forecasts and tide charts before boating, canoeing, or kayaking.

Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish & Wildlife Service is available to all individuals regardless of physical or mental disability. For more information please contact the U.S. Department of the Interior Office of Equal Opportunity, 1849 C Street, NW, Washington, D.C. 20210



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