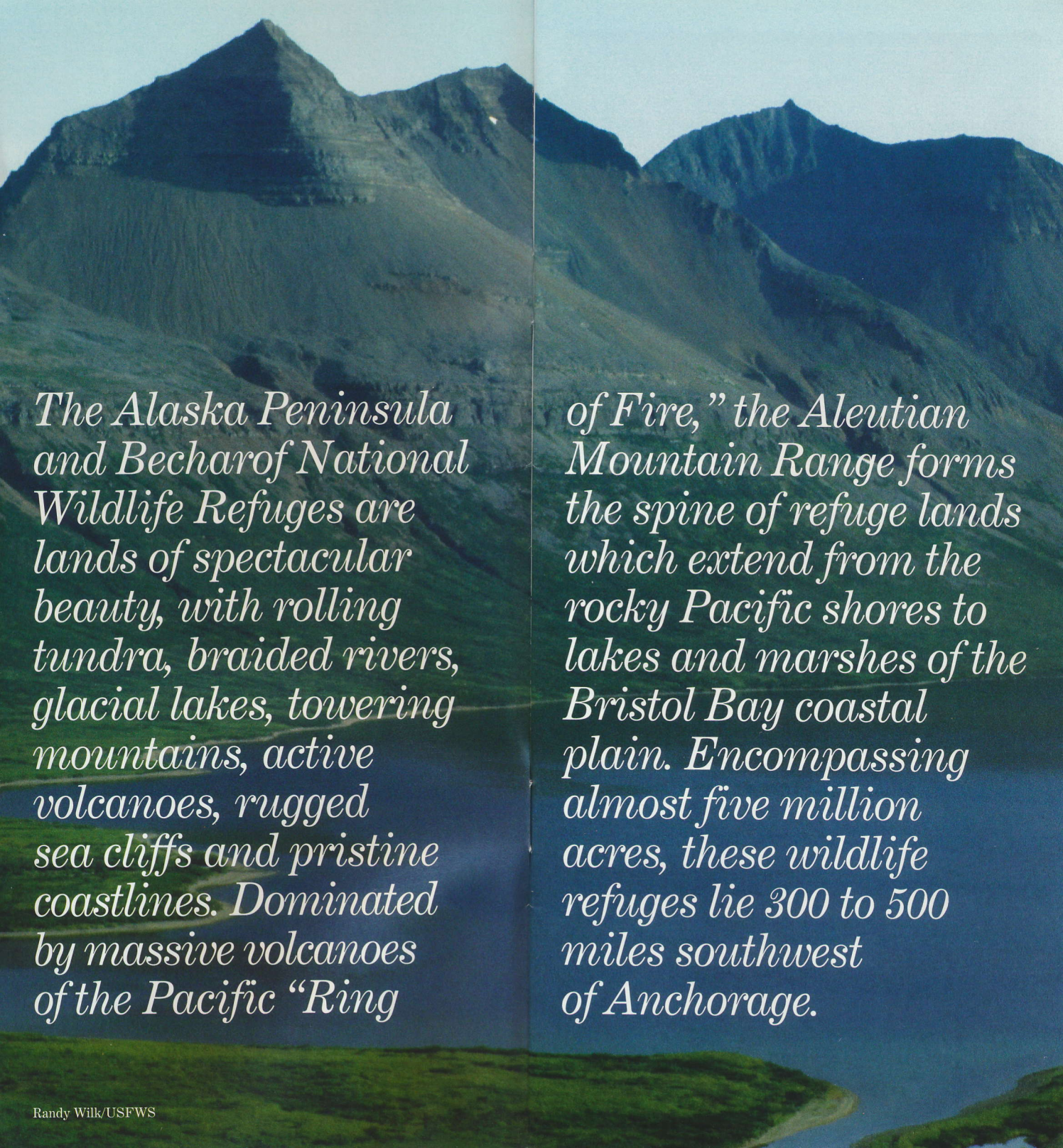


U.S. Fish & Wildlife Service

Alaska Peninsula and Becharof

*National Wildlife
Refuges*





The Alaska Peninsula and Becharof National Wildlife Refuges are lands of spectacular beauty, with rolling tundra, braided rivers, glacial lakes, towering mountains, active volcanoes, rugged sea cliffs and pristine coastlines. Dominated by massive volcanoes of the Pacific "Ring

of Fire," the Aleutian Mountain Range forms the spine of refuge lands which extend from the rocky Pacific shores to lakes and marshes of the Bristol Bay coastal plain. Encompassing almost five million acres, these wildlife refuges lie 300 to 500 miles southwest of Anchorage.



This flying "Blue Goose" (a stylized Canada goose) was designed by renowned cartoonist and conservationist J.N. "Ding" Darling in 1935. It has become the symbol of the National Wildlife Refuge System.

Wildlands for Wildlife

The refuges provide important habitat for fish and wildlife populations including brown bear, moose, caribou, wolf, wolverine, fox, river otter and beaver; five species of Pacific salmon, Arctic grayling, dolly varden/char, rainbow and lake trout, northern pike and burbot. Birds commonly seen include bald eagles, owls, falcons, ravens, ducks, geese, swans, seabirds, shorebirds and passerines. Sea lions, harbor seals, sea otters and migratory whales use shores and offshore waters.

Brown Bears

With an abundant supply of salmon, berries, ground squirrels and carrion, the two refuges provide excellent habitat for numerous brown bears. The bear population on the refuges is estimated at 2,500 to 3,000 animals. Bears use nearly all refuge lands, from mountain tops to the sea coast. Depending on weather conditions and food supply, bears usually leave their dens in April/May and return in October/November. Some bears will den much later, or not at all, if adequate food sources are available.

Caribou

The northern Alaska Peninsula caribou herd is one of 13 major herds within the state. Herd size fluctuates naturally and has varied from 2,000



Donna Dewhurst/USFWS

to 20,000 animals during the last half of the 20th century. The herd migrates up to 200 miles from spring calving grounds between Ugashik and Port Moller, to winter range extending from Port Heiden, past Becharof Lake, north beyond King Salmon to the Alagnak River.

Moose

Moose are relative newcomers to the Alaska Peninsula. They have been observed since the early 1900's, but did not become abundant until the 1950's. Moose travel seasonally to breeding, calving and wintering areas. Migration varies from a few miles to over 50 miles during these periods. The huge deer stand 5 - 7 feet at the shoulder, with long legs that make movement through wet tundra, shallow ponds and limited snow relatively easy. Moose browse on vegetation, especially willow, birch and aspen. Although they appear harmless, moose can be very dangerous, especially females with young. Do not approach too closely or you may be charged.



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*Previous spread:
Ruth Lake
Left: Brown bears
Above: Caribou
Right: Moose*



Willow ptarmigan

Helen Clough/USFWS

Birds

More than 200 species of birds have been observed on or near the refuges, of which 15 - 20 species of game birds, shorebirds, songbirds, and raptors are year-round residents. The refuges provide important spring and fall staging areas and moderately good breeding habitat for many species. The cliffs, bays and poorly-drained lowlands provide abundant habitat for millions of birds, particularly seabirds, waterfowl and shorebirds that use the refuges primarily as a staging area during migration to and from nesting grounds in the Arctic. Seabirds also use the refuges for breeding. Numerous ponds, lakes, streams and wetlands on the peninsula provide ample breeding habitat for a number of species. In the summer, migratory songbirds and raptors make use of the abundant shrub lands, tundra and forest environments on the refuges. A comprehensive list of species is available by contacting the King Salmon Visitor Center or the refuge office.



Sockeye egg



Alevin

USFWS



Fry



Smolt



Adult, spawning



Life cycle complete

Nursery for Pacific Salmon

Many of the salmon from the world's most valuable sockeye salmon fishery, (Bristol Bay), spawn in the streams that originate on refuge lands. The ecosystem of the refuges is fueled by massive runs of the salmon that enrich freshwater streams and lakes with nutrients from the ocean. All five species of Pacific salmon (king, coho, sockeye, pink and chum) spawn in the streams and lakes on the refuges. The salmon runs begin in June and continue to September in Bristol Bay, and into December in the Chignik area.

Life Cycle of Sockeye Salmon

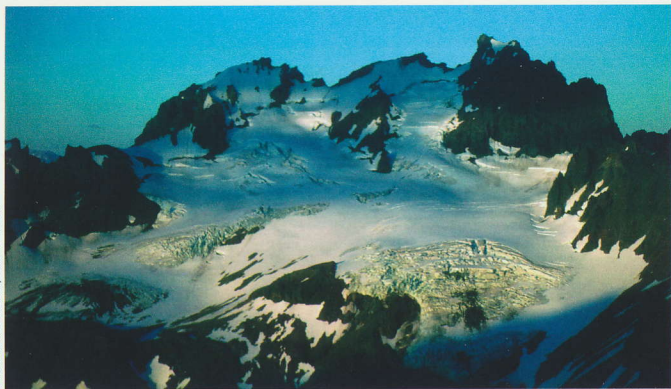
The life cycle of sockeye salmon is a remarkable journey from the freshwater streams of their birth to the salty ocean and back. It is a journey made only once, culminating in both life and death. After the eggs of a new generation have been fertilized the adult salmon die and the circle of life is complete.

Sockeye egg: Female salmon dig a shallow nest (redd) and lay up to 4,000 eggs in the gravel of a cold clear stream. (Depending on environmental conditions, the eggs take six weeks to five months to develop).

Alevin and Fry: Newly hatched sockeye (alevin) stay in the stream gravel and are nourished by a yolk sac on their abdomen. After the yolk is consumed (about a month) the tiny sockeye, called fry, leave the gravel in search of food. They migrate from streams into lakes.

Smolt: Spending one to three years in freshwater the young salmon turn a silvery color and develop the physiological mechanisms needed to survive in salt water. The salmon, now called smolt, migrate to the ocean.

Adults: After maturing for two or three years in the ocean, salmon begin the long journey back to the fresh water stream of their birth. The adult salmon stop feeding and turn bright red after entering freshwater. Males develop a humped back, large teeth and elongated jaws. Adults will die within a week or so after spawning.

*Kejulik Mountains**Becharof Lake***Special Values of the Becharof Refuge**

The second largest lake in Alaska (35 miles long by 15 miles wide) is the nursery for the world's second largest run of sockeye salmon. This glacial lake is fed by two rivers and fourteen major creeks and contributes an average of four to six million salmon annually to the Bristol Bay fishery. Brown bears are abundant in mid-summer and congregate along water bodies to feed on spawning salmon.

Becharof Wilderness

Wilderness areas are lands untouched and unaltered by modern society, where people are visitors and do not remain. Wilderness is protected and managed to preserve this natural state. Approximately 30% of the Becharof Refuge (500,000 acres) is nationally designated wilderness. The wilderness area includes the Kejulik Mountains, Kejulik River and Puale Bay.

Mt. Peulik

Mt. Peulik volcano is the most prominent mountain (4,835 feet) on the Becharof Refuge and rises majestically along the southern edge of Becharof Lake. The name Peulik comes from the Alutiiq or Aleut word(s) meaning volcano and smoke. The volcano erupted in 1814 and 1852.

Gas Rocks

Located on the south shore of Becharof Lake, Gas Rocks is named for carbon dioxide gases that seep

*Mt. Peulik and Gas Rocks*

through cracks in the fractured rock. A hot spring in Becharof Lake, near the base of Gas Rocks, discharges water in excess of 120 degrees F. The gas release and hot water spring are related to the heating and upward movement of groundwater by sub-surface volcanic heat.

Ukinrek Maars

The Ukinrek Maars (craters) were formed in 1977, during ten days of violent geologic eruptions. This is the only maar-producing activity ever recorded in the United States. The maars are located about a mile southwest of Gas Rocks. The larger east maar is approximately 900 feet in diameter and 200 feet deep. Ground water has flowed into the east maar and formed a scenic lake.

Ukinrek Maars



Ugashik Lakes and Narrows

Special Values of the Alaska Peninsula Refuge

The upper and lower Ugashik Lakes are large and pristine, famous for salmon, grayling and brown bears. Numerous bears congregate along the lakeshore in July and August to feed on spawning salmon. The earliest known human inhabitants on the refuge lived in a village near Ugashik Lakes about nine thousand years ago.

Ugashik Lakes

Pacific Coastline/ Castle Cape

This stunning coastline features rugged scenery with steep rocky cliffs, deep-water bays, sweeping beaches and misty fjords. The Pacific coast is often fog-shrouded and bad weather is common. Castle Cape is a well-known coastal landmark near Chignik Bay. This distinctive area with its contrasting light and dark rock layers is often used as a navigational aid by sea travelers.

Mt. Veniaminof

Mt. Veniaminof (8,225 ft) is a huge smoldering volcano and the most prominent mountain on the Alaska Peninsula Refuge. This massive volcano has a base almost 30 miles wide, greater than any active volcano on record. The summit crater is over 20 miles in circumference and has a 25 square-mile glacier. This is the most extensive crater-glacier in North America. The peak is designated as a National Natural Landmark and encompasses over 800,000 acres.

Castle Cape





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Subsistence Lifestyle

Many local rural residents including Alaska Native People (Aleut, Alutiiq, Athabascan Indian and Yup'ik Eskimo), depend on refuge resources to subsistence hunt, fish, trap and gather wild plants and berries. Native customs and traditions call for using all parts of these gifts from nature, not wasting anything that is gathered. Please respect the beliefs and customs of the local people as you visit refuge lands.

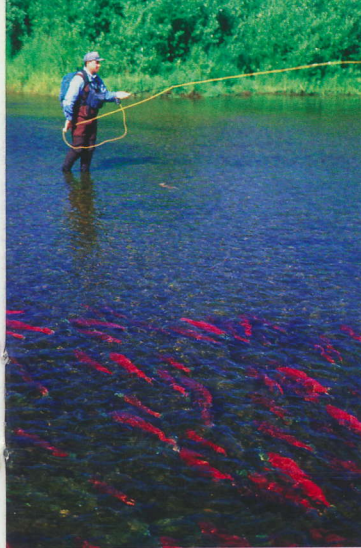
"Subsistence is a way that Native People of Alaska have preserved their cultures. This way of life is not confined to the land. It stretches out to the sky, the waters and rivers. The creatures of the earth give themselves to the People, who in turn share it with family and friends, shaping relationships that celebrate life."

(Helga Eakon, Inupiaq Eskimo)

King Salmon Visitor Center

The King Salmon Visitor Center is a great place to begin your visit to the Alaska Peninsula. The Center is located at the King Salmon Airport and is open year-round from 8:00 am to 5:00 pm. The Visitor Center has an information/trip planning desk, exhibits and interactive programs, audio-visual room featuring wildlife films, and a store offering educational books and numerous air/sea navigation charts and topographic maps. Information about air charter services and fishing/hunting guides licensed to operate on public lands can be obtained at the Visitor Center.

Top: Drying
Subsistence Salmon
Above:
Nagoonberries



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Visiting the Refuges

The Alaska Peninsula and Becharof Refuges offer a variety of recreational opportunities including sport fishing and hunting, flightseeing, observing/photographing wildlife, hiking, backpacking, boating and camping. Refuge lands are remote and accessible only by small aircraft, boat or rugged cross country hiking. There are no roads or maintained trails. Aircharter services and boat rentals are available in King Salmon and other communities.

Commercial Use

All commercial activity on the refuges, including guiding and transporting, requires a *Special Use Permit*. Contact the refuge office for information. Commercial, recreational and subsistence activities are monitored to assure these activities do not significantly impact wildlife populations and their habitats.

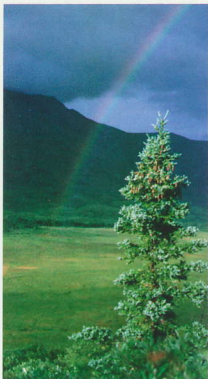
Private Land

There are many parcels of private land within the boundaries of the refuges. Some, but not all, owners have marked their land. Most cabin sites are private property. Please respect all private property and get the landowner's permission if you want to visit.

Above:
Sport Fishing
Below: Mother
Goose Lake



Donna Dewhurst/USFWS



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Weather

The weather on the Alaska Peninsula is characterized by cool temperatures, high winds, prolonged cloud cover and frequent precipitation. Severe storms can occur year-round, often with intense winds known as williwaws. Summer temperatures can range from 32°F to 80°F, with an average in the 50's. Precipitation varies with elevation and location. The Bristol Bay lowlands usually get less than 20 inches per year, while up to 160 inches fall on the Pacific coast. Most of the rain and fog occurs from July – October.

Outdoor Skills and Ethics

Enjoy and respect the pristine character of refuge lands. The trip will be more enjoyable if you minimize your impact on the land, wildlife and other visitors. Make demands on yourself, not on the environment, and leave little or no trace of your visit. How little impact can YOU have on the backcountry? Use the following suggestions to help you "Leave No Trace."

Leave No Trace

Plan Ahead and Be Prepared

Learn as much as possible about the area you are planning to visit. This will determine the appropriate food, clothing, equipment and transportation needed for the trip. Pack lightweight non-odorous foods. Dress in layers and bring small reliable camp stoves and wind-proof tents. Clothing and equipment should be able to withstand rigorous use in prolonged wet and windy conditions. Prepare for bad weather and pack extra food and clothing in case your transportation home is delayed.

Travel and Camp on Durable Surfaces

Travel in smaller groups and visit less popular areas to minimize contact with others and to enhance wildlife viewing opportunities. Confine your travel and camping areas to surfaces that are resistant to impact. In popular or high-use areas, concentrate your use. This will help preserve the natural condition of the surroundings. In remote and low-use areas, spread out your use. Choose



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Pack it in, Pack it out

a camping site that is naturally durable, such as sand or gravel.

Trash has no place in the backcountry. Pack out all of your garbage including cigarette butts, ammunition casings and all non-burnable trash. Properly dispose of what you can't pack out. Avoid contaminating water sources by camping, washing and using the toilet at least 200 feet from all water bodies. Bury human waste at least six inches deep and well away from camp. Use toilet paper sparingly and burn it or pack it out.

Minimize the Use and Impact of Fires

Use lightweight camp stoves when possible. If a fire is needed, keep it small, use a firepan, and burn only dead and downed wood. Put out campfires completely and pack out all unburned trash.

Leave What You Find

People come to wildlands to enjoy them in their natural state. Leave plants, rocks and archaeological/cultural evidence as you find them. Archaeological artifacts are protected by law; do not disturb or remove them.



Take pride in your public wildlands. By using responsible backcountry techniques there should be little or no sign of your visit when you are ready to leave.

*Above: Hiker on Ruth Lake
Left: Dog Salmon River,
Ronald Hood/USFWS*



Backcountry Safety Tips

Always leave your itinerary with family/friends and notify them when you return.

Refuge lands are remote and may be inaccessible during inclement weather. Help could be hours or days away should something go wrong. Pack a first aid kit and know common first aid techniques. Carry emergency water, food, clothing, map, compass and signaling devices.

Be wildlife safe

Precautions should be taken to avoid unwanted encounters with bears and moose, particularly when they have offspring. Avoid using well-worn bear and other wildlife trails. Make lots of noise when hiking, especially on windy days, in dense vegetation and along noisy streams. Keep campsites very clean and cook/store all food away from camp. Keep tents, sleeping bags and all personal gear free of food odors. Never bring food in your tent. Store food so that it is unavailable to bears and other animals. "Food" includes garbage, canned items and toiletries. The use of bear-resistant storage containers

is strongly recommended. Do not bury garbage or debris

*Left: Brown bears are abundant on the Refuges.
Right: Spawning salmon*



because the enticing odors teach bears to associate food with humans, a very dangerous situation.

The weather changes quickly and without warning. Adequate rain gear and warm clothing are essential. Hypothermia is always a possibility with wet conditions and cool temperatures. Cold water kills! Use extreme caution and common sense when near rivers, lakes and coastal areas. The water is often murky and swift, and dangerous conditions may not be apparent. Watch out for quicksand.

Boil, filter or treat all water before drinking. Giardiasis, a water-borne parasite, is common in Alaska.

Biting insects are common. Come prepared with repellent, headnets and a screened tent. Medication should be carried if you are sensitive to bug bites.

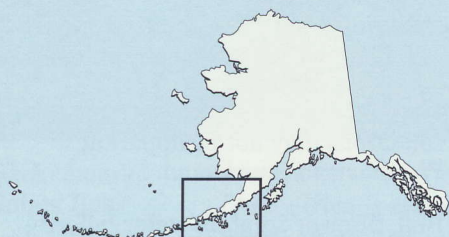
Take Pride in Our National Wildlife Refuge System

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.



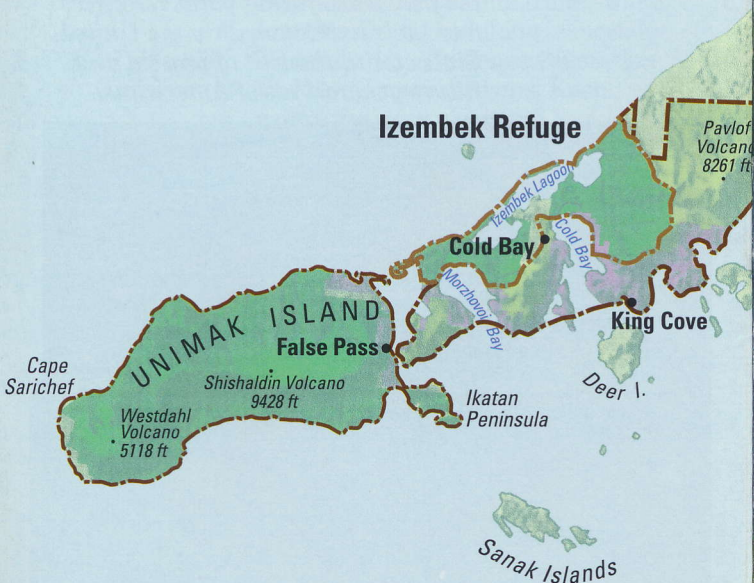
Alaska Peninsula and Becharof

National Wildlife Refuges



MAP LOCATION

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The US Fish and Wildlife Service is the principal federal agency responsible for conserving, protecting and enhancing fish and wildlife populations and their habitats for the continuing benefit of the American people. The Fish and Wildlife Service manages approximately 93 million acres in over 500 wildlife refuges, thousands of small wetlands and other special management areas. It also operates 66 national fish hatcheries and 78 ecological service field stations throughout the country.

For more information contact:
Refuge Manager
Alaska Peninsula/Becharof
National Wildlife Refuges
P. O. Box 277
King Salmon, Alaska 99613
907/246 3339, fax 907/246 6696
<http://alaska.fws.gov>

King Salmon Visitor Center
P. O. Box 298
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907/246 4250, fax 907/246 8550

U.S. Fish & Wildlife Service
1 800/344 WILD
Federal Information Relay:
(TTY/voice) 1 800/877 8339
<http://www.fws.gov>

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