



Small Park, Big Resources

The Dunes, Lagoons, and Prairies of American Camp

Did you know that there are amazing natural places in San Juan Island National Historical Park's (NHP's) American Camp? These native ecological communities are uncommon in the area and include habitat for rare species, some of which live nowhere else in the world. Challenges exist, however, for the conservation of these communities and species. Learn more about them, what the National Park Service (NPS) is doing to protect them, and how you can help.

But first... you should know that San Juan Island NHP consists of two separate units, American Camp (1,223 acres) and English Camp (915 acres). The camps commemorate the arbitration and peaceful resolution of an international boundary dispute between the United States and Great Britain in the mid-1800s. American Camp is on the southeastern end of the island and has been occupied by humans for thousands of years, spanning from ancestors of Coast Salish Tribes to 19th century homesteaders.

Sand Dunes

Active, natural sand dunes used to be a common sight throughout the Puget Sound, but now the dunes at American Camp are one of only a handful of remaining coastal dune ecosystems in the region. Ecologists studying the park dunes have found several rare plants, including the largest known population of yellow sand verbenas. This plant is the host plant for the critically imperiled sand verbenas moth, which is found in only three sites in the United States (Washington state only) and five sites in Canada.

This rare moth completes its entire life cycle on and around the yellow sand verbenas plant. The moth mates on the plant and lays its eggs in the flowers. Then the caterpillars feed on the plant, and both they and the pupae—the life stage in between caterpillar and adult—shelter under it. Winged adults, the final stage, feed on the plant's nectar and lay eggs to complete the cycle.

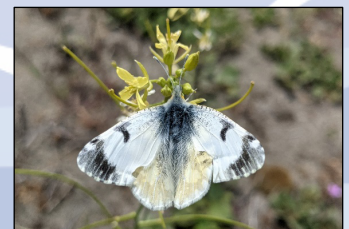
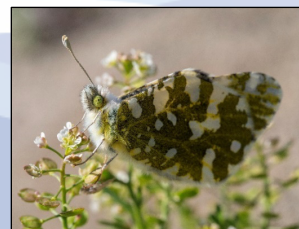
The dune habitat is also vitally important for the endangered island marble butterfly because the greatest density of one of its host plants grows there. The only remaining population of this butterfly in the world lives on the south end of San Juan Island.



Coastal sand dunes at San Juan Island NHP. The yellow-flowered plants are yellow sand verbenas, host plant to the rare sand verbenas moth. *NPS photo*

What threatens the sand dunes and what is the NPS doing for them?

The free movement of sand is critical for sand dune habitats. Non-native invasive plants, like Canada thistle and Himalayan blackberry, stabilize the sand and can lead to the invasion of other problematic plant species. This reduces habitat quality for native species and can lead to conversion of the sand dunes to a different habitat type, such as shrubland or grassland. The NPS is experimenting with the best ways to control these invasive plants while also protecting the dune's native inhabitants.



Endangered island marble butterfly, with wings folded (left) and from above (right). To help the butterfly, every year NPS staff conduct habitat enhancement projects, collect eggs and caterpillars, and rear butterflies for re-release into park lands. *NPS photos*

Jakle's Lagoon



Jakle's Lagoon, the largest and deepest of the three coastal lagoons in American Camp. Coastal peppergrass (a butterfly host plant) is in the foreground. *NPS photo*

Coastal lagoons are rare in the Puget Sound region and are recognized as being particularly important ecologically. Jakle's Lagoon is the largest of only three naturally formed coastal lagoons on San Juan Island, all at American Camp. Many plants growing around the lagoons are regionally rare, including native coastal peppergrass—another key host plant of the island marble butterfly.

What is the NPS doing for the lagoon?

Threats to the island marble butterfly at Jakle's Lagoon, and the other lagoons, include winter storm surges and invasive plants, both of which affect the butterfly's fragile habitat. Every year, the NPS monitors butterflies at the lagoons, documents changes in habitat, and removes invasive plants that threaten the lagoons' ability to support native species.

How can You help?

Park visitors have an important role in the preservation and stewardship of park resources. Do your part when visiting San Juan Island National Historical Park to respect and protect all its natural and cultural resources.

Because both the sand verbena moth and the island marble butterfly rely on the rare habitats in American Camp, you can help by staying on established trails, keeping your pets leashed, and not disturbing plants or insects resting on plants, driftwood, or the ground. By following these simple measures, you can avoid stepping on or otherwise disturbing all life stages of these rare insects. These measures also help protect the other plants and animals that live in the park.

To help keep new invasive plants out of San Juan Island, make sure to check your shoes and vehicle tires for hitchhiking seeds before entering the park—especially if you've been in areas where invasive plants are known to occur.

Native Prairies



Native prairie with lupine (purple) flowers. *NPS photo*

The prairies in American Camp are some of the last surviving natural prairies in the Northern Straits and Puget Sound regions. They are also integral to the history of the park.

For millennia, Coast Salish people indigenous to the area maintained the prairies and encouraged the growth of native plants used for food and medicine. Within the last 200 years, prairie habitat within the park was altered by historic Euro-American farming and ranching and lack of fire. Today much of the American Camp prairie remains altered, but there are remnants that retain a high diversity of native plants and support rare species, such as the island marble butterfly.

Native plant species of American Camp continue to be culturally significant to the Coast Salish Tribes. In 2021, the park partnered with the Samish Indian Nation to study the cultural importance and medicinal uses of plants in the prairies and other areas of American Camp. The study found that American Camp is "rich with culturally significant species." It is our shared goal to protect these species for the next generations.

How is the NPS addressing threats to prairies?

One of our greatest concerns for the remaining high-quality native prairies is the loss of open grassland and conversion to shrubland. Other threats include encroachment of conifers and invasion of non-native grasses that create a thick carpet of cover in which native plants can't thrive. Every year, the NPS surveys the prairie for new invasive plant detections, removes problem invasive species, and cuts down young conifers to prevent encroachment into native habitats.

This brief is based on: Martin, S.J., and R.A. Martin. 2021. Focused Condition Assessment for San Juan Island National Historical Park: Special ecological areas at American Camp. The Center for Natural Lands Management, Temecula, CA. Prepared for the National Park Service.