

## Yellow Sandverbena (*Abronia latifolia* Eschsch.)

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I grew up near the southern edge of the Coos Bay dune sheet. There are many green “old friends” I love to meet while hiking in the *ta’an* (a Hanis Coos word for dunes): a Port Orford cedar (*Chamaecyparis lawsoniana*) growing above a dune lake, purple flowered seashore lupines (*Lupinus littoralis*), wild strawberries (*Fragaria chiloensis*), among many others. But one beach-hugging plant has stood out for me, not only for its bright yellow flowers, but especially for its strong sweet smell: the yellow sandverbena. I can’t recall any other native beach or dune plant that has such strongly scented flowers.

Yellow sandverbena grows from British Columbia to the central California coast and is usually found above the high tide line beaches and in coastal sand dunes. A ground-hugging perennial, yellow sandverbena sprawls across the sand with stems up to a meter long and opposite oval leaves that are somewhat sticky, thick and fleshy, and often covered in sand. The plants are anchored in the sand by a large, thick taproot. The flowers are a bright yellow. Numerous small (8 to 10 mm long), five-lobed flowers are grouped in an eye-catching round inflorescence of up to 34 flowers.

But to me this plant’s most striking characteristic is its scent. It is unusual among native northwest beach and dune plants to have a strong, sweet fragrance. Scents are notoriously difficult to describe, but to me it smells both sweet and spicy, with hints of something that reminds me of cardamom and ginger, but not quite like either. Indeed, it is this feature that inspired its name in the Hanis and

Miluk languages of Coos Bay: *thəmqá’yawa*, which translates roughly “the scented one.”

Yellow sandverbena is not a true verbena (Verbenaceae). The genus *Abronia* is a member of the four o’clock family (Nyctaginaceae). This family is represented in Oregon by just four species of *Abronia* and three species of *Mirabilis* (four o’clock). In the genus *Abronia*,



Flowers of yellow sandverbena at Crissey Field Beach at the welcome center near the Oregon-California border. Photo by the author.

there are two species on the Oregon coast, yellow sandverbena (*A. latifolia*) and pink sandverbena (*A. umbellata*). Pink sandverbena resembles the yellow-flowering species, but its leaves are longer and narrower, and the flowers are a vivid pink with white centers. Some report pink sandverbena has no scent; others report it has a scent, but is lighter than its yellow cousin. Both species have declined, but pink sandverbena has nearly disappeared from its northern habitat in British Columbia and Washington and is now listed as an endangered species. Today, most pink sandverbena is found in southern Oregon and northern California. The

two species can hybridize, but rarely do. In recent years a few hybrids have been reported from the Port Orford region. These hybrids have pale pink flowers, are scented, and the fruit is usually seedless.

For many Indigenous people, yellow sandverbena’s most important characteristic was not its odor or showy flowers, but its root, which was used as a food. Some people harvested them in fall, some in early summer. Most traditional Indigenous root foods had to be cooked to make them digestible or palatable, but yellow sandverbena roots



Exposed root of yellow sandverbena in the dunes at Abbott lagoon, Pt. Reyes, California. Photo by the author.

were unusual in that they were eaten raw. Erna Gunther, in her classic survey of western Washington ethnobotany, said that a Klallam informant compared the taste and sweetness to sugar beets.

I have not yet tried to eat this root myself; the plant is not common outside parks in California where I have been living for the last 20 years, and the parks here discourage most kinds of harvest. However, Canadian ethnobotanist T. Abe Lloyd tried some last year. He found that “Raw, the root has a very firm texture and a subtle smell of cucumber. It is softer than a parsnip and drier than a potato, with flavor somewhere in between the two. Boiling for five minutes did little to change the root’s character; it softened to that of a cooked parsnip and tasted more like a potato with a hint of sweetness and a mild peppery after taste. I fried a couple thin slices of the root for 10 minutes and these had a more peppery, though not disagreeable [*sic*], taste. Perhaps boiling leaches out some of the peppery constituent. In any case, I think Sand Verbena root would serve well as a base carbohydrate for a meal and easily take on added flavoring.”

Though known to Native People for millennia, it was not described and named in western science until 1826 in a publication by German naturalist Johan Friedrich Gustave von Eschscholtz. Nearly ninety years later, a New York botanist named Homer House came west to visit a friend, medical doctor and amateur botanist, Dr. Walton Haydon. Haydon and House travelled around the Coos Bay region botanizing. House’s observations of the Coos Bay dune field are especially interesting because the

dunes and its plant communities have changed considerably over the last century. Today, introduced plants such as European beachgrass (*Ammophila arenaria*), scotch broom (*Cytisus scoparius*) and gorse (*Ulex europaeus*) have radically changed dune ecology and have caused the decline or extirpation of some native plant species. A century ago these invasive plants had a much smaller foothold in the dunes. House noted that yellow sandverbena was an important sand binder in the dunes, and created hummocks. “The *Abronia* seems to be especially effective as a sand binder, growing in large colonies and with a gigantic, deep going root, retaining the soil so firmly that the surrounding sand may be blown away for several feet below the colony, resulting in the production of curious green capped mounds...” Today, yellow sandverbena is not often seen in



Pink sandverbena resembles the yellow-flowering species, but its leaves are longer and narrower, and the flowers are a vivid pink with white centers. Photo from near Coos Bay by Lisa Schomaker.



A ground-hugging perennial, yellow sandverbena sprawls across the sand near Waldport, Oregon. Photo by Lisa Schomaker.

the Oregon dunes, but tends to be found along beach margins.

Yellow sandverbena is the host plant for the caterpillars of the sandverbena spotted moth (*Copablepharon fuscum*) in British Columbia and Washington. Because populations of its host plant have become uncommon and fragmentary, Canada has declared this moth an endangered species. Other moths that use this plant as a host are the sand dune moth (*Euxoa wilsoni*), spotted moth (*Euphyia implicata*) and the yellow woolly bear moth (*Spilosoma virginica*). Yellow sandverbena and silver beachweed (*Ambrosia chamissonis*) are host plants for the Oregon plant bug (*Lygus oregonae*), an insect of concern to the Xerces society as a species on the decline in some areas, again because of the declining numbers of *Abronia*.

Populations of both species of *Abronia* would probably increase if habitats were protected from coastal development and invasive species were controlled. Controlling vigorous invaders like European beachgrass is difficult, but there have been a few trials along the Oregon coast to remove it and plant seeds or seedlings of pink sandverbena. These trials were done not just for the plants, but also to increase nesting habitat for the endangered Western Snowy Plover (*Charadrius nivosus*), which also thrives in the same kind of habitat as *Abronia* does.

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Yellow sandverbena from Crissey Field Beach near Brookings-Harbor, below the Oregon welcome center. Photo by the author.

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