

Where can you find Sand Ecosystems?

Along BC’s South Coast, you can find unique sand ecosystems that are rare in BC. In the Metro Vancouver region, sites include Boundary Bay (Delta), Iona Beach (Richmond) and Spanish Banks (Vancouver). On the Sunshine Coast, sites can be found on Thormanby and Savary islands. Many of these places are parkland – visited by locals and tourists.



Photo Tamsin Baker

Buccaneer Bay Provincial Park,
North and South Thormanby islands



Photo Claudia Schaefer

Boundary Bay Regional Park, Delta

What is a Coastal Sand Ecosystem?

The foundation of a coastal sand ecosystem involves sand and plants – with the plants often scattered in patches on beaches, spits and dunes. These areas are often associated with nearby forests, salt marshes and bluffs. Marine-related natural processes such as tides, storm surges and ocean spray play a role in building and maintaining these ecosystems. The variety of plant communities that result from all these interactions support a wide range of rare and interesting animal life including birds, insects and reptiles.



Photo Claudia Schaefer

Beach Grove area, Boundary Bay Wildlife Management Area

Why are they important?

Sand ecosystems provide many different services, such as:

- Habitat to support many unique and rare species thereby contributing to BC’s biodiversity.
- Recreational benefits for outdoor enthusiasts.
- Buffering to protect inland areas from flooding or storm damage.
- Locations for First Nations to hold social and spiritual gatherings.



Photo Claudia Schaefer

Savary Island

What can you do to help protect Coastal Sand Ecosystems?

The plants are fragile and vulnerable to human disturbances.



Photo Claudia Schaefer

Savary Island

Please minimize your impact:

- Tread carefully. Stay on designated trails.
- Keep dogs on-leash. Pick up after your pet.
- Choose not to build structures or store boats on the sand.
- Keep wheeled vehicles off the beach.
- Avoid playing on, digging into or sliding down dunes or sand cliffs.
- Protect active bluffs that feed into and support sand ecosystems.
- Help stop the spread of invasive plants such as Scotch Broom. Contact your local stewardship group or the SCCP to learn more about identifying invasive plants and removal techniques.

For more information, visit www.sccp.ca



The Sand Ecosystems of British Columbia’s South Coast



Photo Dawn Hanna



Photo Dawn Hanna

Photo Dawn Hanna

Fragile and Under Threat

Species of Interest:



Contorted-pod evening-primrose (*Camissonia contorta*)
Endangered plant found on Savary Island.



Audouin's Night-stalking Tiger Beetle (*Omus audouini*)
Endangered beetle found in the Lower Mainland.



Horned Lark, strigata subspecies (*Eremophila alpestris strigata*)
The lark is no longer found in Canada and the sparrow only occurs as one population in Nanaimo. Both likely used to breed in dune habitats on the South Coast. Protecting coastal sand ecosystems will help these birds recover.



Grey beach peavine (*Lathyrus littoralis*)
Rare plant found on Savary Island.



Common Nighthawk (*Chordeiles minor*)
Nighthawks, whose populations are declining, nest in habitats free of vegetation, such as beaches.



Vesper Sparrow, affinis subspecies (*Poecetes gramineus affinis*)

Coastal Beach Plants:



Large-headed sedge (*Carex macrocephala*)
Related to grasses, this sedge plant has dense, dark spiky heads that are recognizable during the fall and winter.



Gumweed (*Grindelia stricta*)
The daisy-like flowers are encircled by bracts covered in a sticky substance, giving it its name "gumweed".



Dune wildrye (*Leymus mollis ssp. mollis*)
A tall grass that is dominant in sand ecosystems. Also known as dunegrass.



Silver burweed (*Ambrosia chamissonis*)
Has clinging seeds that will attach to clothes, making the name "burweed" quite appropriate. Can grow to form large clumps.



Beach pea (*Lathyrus japonicus*)
This sprawling plant with colourful, showy pink flowers is the most frequently found peavine on south coast beaches.



Seashore lupine (*Lupinus littoralis*)
A perennial herb often found in mats with flowers that range from blue to purple with some white.



American searocket (*Cakile edentula*)
This is one of the first colonizers of the windswept sand near the ocean's edge. It is considered an introduction from eastern Canada, and often occurs with the similar European searocket.



American glasswort (*Sarcocornia pacifica*)
Salt march ecosystems are often found associated with dune ecosystems. They occur on muddy, sand flats and are typically dominated by the lower-lying, fleshy American glasswort.



A significant threat to Coastal Sand Ecosystems is the spread of invasive plant species such as Scotch broom, English ivy and non-native grasses.



Scotch broom (*Cytisus scoparius*)
This is a prolific invader that forms dense stands that stabilize the sand and increase soil fertility, changing the nature of the ecosystem.



English ivy (*Hedera helix*)
Ivy can quickly spread over and into the sand outcompeting native species.

When grouped together, the native plants form ecological communities, several of which are listed as endangered. **These include large-headed sedge, dune wildrye-beach pea and Northern wormwood - red fescue/grey rock-moss ecological communities.**



Iona Beach Regional Park, Richmond