



# Sensitive Ecosystem Mapping

## in the Islands Trust Area

The Islands in the Strait of Georgia (the Gulf Islands) hold a diversity of plants and animals – many of them rare. This diversity once created a rich mosaic of ecosystems, but is now threatened by human activities. Today, the remaining ecosystem fragments, acting as strongholds for rare species, are called sensitive ecosystems.

As a property owner, you play an important role in the stewardship of these unique areas. The Islands Trust developed this series of fact sheets to introduce you to where sensitive ecosystems exist, how you can recognize them, and what simple steps you can take to ensure these fragile areas survive and even thrive in the future.

### What are Sensitive Ecosystem Maps?

- Maps that identify the location, range, and type of sensitive ecosystems present in each Local Trust Area
- The maps are now available to view at [www.islandstrust.bc.ca](http://www.islandstrust.bc.ca)



### How were the Maps created?

- Mappers reviewed aerial photographs to interpret and categorize different types of vegetation at a scale of 1 : 16,000
- Ecologists visited the mapped areas to verify interpretations and collect ecological data
- Local island residents and citizen groups provided feedback on map drafts



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### Why were the Sensitive Ecosystem Maps created?

- To provide information for decision-makers to improve land-use planning in and around sensitive areas
- To create a coordinated plan for conservation organizations to protect those ecosystems under greatest threat



Trudy Chatwin

# Sensitive Ecosystem Types in the Islands Trust Area

## WOODLAND



*Trudy Chatwin*

Dry open forest with 10-30% tree cover (conifer-dominated or mixed conifer-broadleaf), often with shallow soil and bedrock outcrops. Provide habitat for rich assemblage of plants, insects, reptiles and birds. Rare, highly fragmented, and vulnerable to rural development. Include Garry oak woodlands.

## CLIFF



Very steep slope, often exposed bedrock, may include steep-sided sand bluffs. Ledges and fissures on cliffs provide nesting sites for birds, roosting sites for bats, and overwintering shelters for snakes.

## WETLAND



*Ned Dawe*

Areas saturated or inundated with water for long enough periods of time to develop vegetation (may result from fluctuating water tables, tidal influences or poor drainage conditions). Exhibit rare species, high biodiversity, fragility, specialized habitat and functions.

## HERBACEOUS



*Emily Gonzales*

Non-forested areas (less than 10% tree cover) with shallow soils. Include bedrock outcrops, large openings within forest, spits, dunes and shorelines vegetated with grasses and herbs. Plants can be easily trampled or dislodged due to thin soils; highly vulnerable to human disturbance.

## FRESHWATER



Bodies of water such as lakes and ponds that typically lack floating vegetation. Habitat for numerous fish, amphibians, aquatic plants, and invertebrates; play vital role in lifecycle of many species.

## RIPARIAN



*Mark Kaarremaa*

Areas adjacent to water bodies (rivers, lakes, ocean, wetlands) that are influenced by erosion, sedimentation and flooding. Support disproportionately high number of vascular plants, moss, amphibian, and small mammal species.

## OLD FOREST



*Bruce Whittington*

Conifer-dominated dry to moist forest types, generally over 250 years of age. Support rich communities of plants and animals that may be dependent upon the unique environmental conditions created by these forests.

## Other Important Ecosystems

**MATURE FOREST:** Usually conifer-dominated, occasionally deciduous, dry to moist forest, 80-250 years in age. These are future older forests. Provide connections between natural areas and act as buffers minimizing disturbance to sensitive ecosystems.

**INTERTIDAL:** Link marine and terrestrial environments. Islands Trust intertidal mapping focuses on mudflats and beaches -- some of the most biologically diverse natural communities. These ecosystems provide wildlife with food, nursery areas (fish and marine invertebrates), feeding grounds (migrating birds), travel corridors (species using both marine and terrestrial areas), and protection from weather and predators.