http://www.valdes-island-conservancy.org/ Spring 2017 Issue #4

VALDES ISLAND CONSERVANCY NEWSLETTER

President's Message

Alexandra de Jong Westman-Tait

Another year, and another newsletter comes into your mailboxes…It is hoped that these newsletters help keep VIC members and islanders up-to-date on the activities of the Conservancy.

Since the Annual General Meeting in September 2016, the Board has met monthly, actively moving to fulfill the goals and strategic directions as developed in the Conservancy's four-year strategic plan. This plan was crafted by way of two near day-long meetings with all board members. The resulting strategic plan document was circulated to you in the summer 2016 and also provided in hard copy at the AGM. If you have had time to only skim through the report, below is the "Coles Notes" version….

The purpose of the strategic plan is to be a guiding document for the Board and the Conservancy… answering the questions "Who are we? Why are we here? What are we trying to achieve?". These are critical questions for any non-profit society.

Since its inception the Conservancy has grown in both form and function, all the while being guided by its original and unchanged constitution and mandate. The VIC is now a provincially recognized organization as a voice for Valdes /Lyackson Island.

As part of the "envisioning" exercises carried out during the strategic planning sessions, the Board articulated our "Core Values", what the Conservancy stands for; our "Mission", what our essence and purpose is; and our "Vision", what we want to see in the long-term.

From this exercise, we have a clearer idea of who the Conservancy is, which is now better described in our more succinct Mission Statement….

To conserve and protect the existing biological and cultural communities of Valdes Island and its environs.

… and the Conservancy now has an eye to the future, with the ultimate Vision….

That Valdes Island be recognized for its globally-significant and locally-rare biological diversity.

Within the bounds of these statements, the various Committees of the Conservancy now have working parameters within which to fulfill a plethora of exciting projects. We hope that you'll join us in these in the months and years to come!

Inside This Issue...

Mission Statement

To conserve and protect the existing biological and cultural communities of Valdes Island and its environs.

Vision Statement

That Valdes Island be recognized for its globally-significant and locally-rare biological diversity.

BioBlitzs and Their Findings...

Marja de Jong Westman

L. to R. Rob Butler, Diane Burton, Marja dJW, Christine Dunsmoor, Janet Canning & Liz Cochrane Photo:Margo Sadler

Our third annual BioBlitz was held the first weekend in June, 2016. Over the three years we have conducted these, 21 island families have participated and been guided by over 10 local and off-islander biologists. The Blitz's key purposes are to catalogue the plants and animals on Valdes'/Lyackson' shores and lands and to become aware of areas of special concern – such as rare and threatened ecosystems and species, or areas compromised by the growth of invasive species. As neophyte butterfly collectors team up with museum curators, as retired drama teachers turn over rocks with marine invertebrate biologists…the island shows its biological wealth and participants all have a rather grand time! At last year's Blitz we carried out point counts for birds from Starvation Bay to Blackberry Point adding a new bird species to the list, MacGillivray's warbler and a very rare melanistic form of the terrestrial garter snake. The Curator of Entomology from the Royal Provincial Museum, Joel Gibson, kept pace and collected all he could as the museum has no records for Valdes/Lyackson Island. Fireflies ended up at the top of Joel's list. The group also completed the mounting of the bluebird boxes, a project we initiated two years ago and was jump-started by John and Annette Hurd when they succeeded in getting up 5 boxes around the "old beaver pond" at the south end. The other boxes can now be found along the logging road right up to Long Lake.

Have a gander at Joel Gibson's Bug eye view of Valdes/Lyackson, Diane Burton's war on invasive plants and Marja and Warren's rich findings around Kendrick Island and Gabriola Pass.

This year's Blitz is planned for June 23, 24 and 25th….join us, won't you? The efforts of the BioBlitzs are directly aligned with the Conservancy's mission and vision.

A Bug's Eye View of the 2016 Valdes/Lyackson BioBlitz

Joel Gibson, Royal BC Museum

It was with no small degree of trepidation that I approached the 2016 Valdes/Lyackson Island BioBlitz. It was to be my first visit to the Gulf Islands. Having moved to British Columbia from Ontario only four months prior, I did not have much experience with any of the unique locales on the "far left" coast. My worries were soon put to rest by the warm smiles of the couple that would be my hosts for the next few days, Mark and Jane Bateman. I was introduced to our fellow traveler, Lynne Falconer, and we quickly got to stowing our gear on the boat. The trip across to the island was brief, but exciting and informative. My three guides gave me the background on the island and the current inhabitants that I would meet over the next few days.

The Bateman's beautiful home was soon turned into my *de facto* insect lab for the weekend. Mark and I set up a Malaise trap by the edge of the forest and small plastic pan traps were set out by the flowers. A trip to the Westman's home allowed me to meet many more new people and develop a plan for intense insect collecting on the following days. Bright and early the next morning we would depart from Marja's backyard and make our way through the woods to Blackberry Point, collecting all the way.

A Bug's Eye View of the 2016 Valdes/Lyackson BioBlitz

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Saturday morning was bright and sunny, as were the faces of those joining me in my bug hunt. Nets were distributed and instructions were brief. As a first attempt at an insect species list for the island, we were essentially aiming for one of everything. “If it flutters by or crawls past you, scoop it up” was our motto. This strategy proved effective as many specimens of bees and flies were captured as we walked along the trail. Intense searches at meadows turned up some interesting specialists, including *Tyria jacobaeae*, the cinnabar moth. This bright red and black day-flying moth, native to Europe, is introduced in BC and feeds on Tansy Ragwort.

We met up with many of the other islanders by the time we reached the beach. As many went out at low tide to look for marine invertebrates, I continued my search for insects amongst the driftwood and seaweed wrack. I managed to collect a number of flies unique to beaches and intertidal zones. There are no fewer than four families of flies, and members of many other families, that can *only* be found on beaches and seaweed. These flies have not been the subject of any study along Canada's west coast. The specimens I collected on Valdes/Lyackson will prove to be invaluable in my future work on these groups. A return to the Westman home Saturday evening allowed for food, hospitality, and much bragging about the specimens seen.

Long Lake

Sunday's adventure focused on walking to Long Lake with more collecting along the way. As expected, there were numerous dragonflies buzzing around the pond. Rather than collecting, we chose to photograph the captured dragonflies to see how many species were present. My colleague at RBCM, Dr. Rob Cannings, was able to identify all of our photographs to species. Six different species [*Rhionaeschna californica* (California Darner), *Rhionaeschna multicolor* (Blue-eyed Darner), *Erythemis collocata* (Western Pondhawk), *Libellula forensic* (Eight-spotted Skimmer), *Pachydiplax longipennis* (Blue Dasher), and *Sympetrum illotum* (Cardinal Meadowhawk)] were recorded in just under an hour's time. A similar approach to photographing butterflies allowed us to record two species of swallowtails [*Papilio eurymedon* (Pale Swallowtail) and *Papilio rutulus* (Western Tiger Swallowtail)].

Western Tiger Swallowtail (*Papilio rutulus*)

Following our productive and invigorating hikes, I also collected the specimens from the Malaise trap and pan traps. All told, 272 specimens were collected and brought to the RBCM for identification. While many specimens are not yet fully identified (and may require expert international colleagues to do so), some preliminary results are available. Four classes of arthropods (Insects, Spiders, Millipedes, and Isopods) were present. Twelve orders and 65 families were represented.

While these numbers are impressive, this was only a preliminary survey and did not include some of the other specialized approaches to insect collecting likely to recover even more different species. Future BioBlitzes could include night light traps and soil sampling to discover more of the island's biodiversity. With the warm, welcoming spirit of the Valdes/Lyackson Island folks, I guarantee that I will want follow up on this annual bug adventure for years to come.

BioBlitz Gallery
photos by Margo Sadler & Marja de Jong Westman

Tony Westman installing blue bird nest box

Melanistic terrestial garter snake

Janet Canning & Lynne Falconer with nets

Rob Butler with juvenile melanistic snake

Tansy Ragwort (*Senecio jacobaea*)

Valdes/Lyackson Island 1st Invasive Plant Pull June 4-5, 2016

Diane Burton

Our first invasive plant pull on Saturday saw BioBlitzers leaving a trail of Tansy Ragwort (*Senecio jacobaea*) on the logging road from Starvation Bay to Blackberry Point. This provincially noxious weed has many aliases including staggerwort, stinking willie, St. James-wort and mare's fart. This poisonous plant was likely introduced to North America as a medicinal herb from Northern Eurasia. However, if consumed in sufficient amounts, the toxic alkaloid can cause liver damage in mammals. A low growing rosetta of dark green, deeply cut irregular leaves is produced the first year. Second and subsequent years sees a tall, erect stem. Daisy like, bright yellow ray shaped flowers appear from June through to the end of September. Each plant can produce more than 150,000 seeds which are transported by wind, water and animals. These seeds can remain viable on top of the soil for 4 -5 years, over 20 years if buried.

Hairy Cat's Ear (*Hypochaeris radicata*)

Sunday, June 5th saw Liz Cochran and Diane Burton sitting in Heather Grant's (Frazer) meadow pulling Hairy Cat's Ear (*Hypochaeris radicata*) also known as false dandelion. This plant is a perennial, rapidly infesting meadows, pastures, lawns, riverbanks and roadsides. Hairy Cat's Ear has become a very common and persistent invasive plant in Garry Oak ecosystems, displacing native plants. It is best to control this plant by hand digging when it first appears, taking care to remove all of the crown and all roots….tedious work but worthwhile for the future survival of these now very rare ecosystems. Here are a couple of links which describe these special spots.
Garry Oak Meadows http://tinyurl.com/l4gtqlq and Garry Oak Ecosystems http://tinyurl.com/m54b3w2

On Valdes/Lyackson Island we have observed the presence of many other invasive plant species. The BC Weed Control Act indicates that land owners are legally bound to remove plants designated as "noxious weeds". Other noxious plants we may target this June will be:

- Canada Thistle (*Cirsium arvense*)
- Burdock (*Arctium spp.*)
- Scotch Thistle (*Onopordum acanthium*)
- Yellow Flag Iris (*Iris pseudacorus*)

Canada Thistle (*Cirsium arvense*)

But we have many other aliens to choose from. Here are a few unregulated, but invasive plants of concern:

- English Ivy (*Hedera helix*)
- English Holly (*Ilex aquifolium*)
- Creeping Buttercup (*Ranunculus repens*)
- Butterfly Bush (*Buddleja davidii*)
- Scotch Broom (*Cytisus scoparius*)
- Himalyan Blackberry (*Rubus discolor*)
- Common Periwinkle (*Vinca minor*)

Yellow Flag Iris (*Iris pseudacorus*)

Valdes/Lyackson Island 1st Invasive Plant Pull June 4-5, 2016

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Any alterations of natural systems, whether it be tree topping or ivy pulling should follow what are called Best Management Practises which provide guidelines for work to occur with the least disruption to wildlife. **So for example, pruning of trees or removal of vegetation should not be done during the months when birds are breeding or migrating. It is suggested for such work to be done between August 15th and March 15th only.** Noxious weeds can be removed at any time and in the case of our work on the island, we are careful to work in areas where wildlife is not disturbed.

You might find the following links helpful
http://www.env.gov.bc.ca/bcparks/conserve/bcparks-ip-guide.pdf
and
http://bcinvasives.ca/resources/publications/field-guide-to-noxious-weeds-and-other-selected-invasive-plants-of-BC

Here are some useful suggestions provided by the North Vancouver District…

- Never dump garden waste or hanging baskets into parks or other natural areas.
- Avoid buying plants promoted as fast spreaders or vigorous self-seeders. These are often invasive.
- Contain or remove invasive plants on your property to prevent them from spreading.
- Control weeds that grow under bird feeders. The falling bird seed can become a source of invasive plants.
- Use caution when ordering plant seeds over the internet or through catalogues. The introduction of foreign seeds is a significant route for invasive plants to find their way into the city.
- Grow native plants in your garden – for more information contact the Native Plant Society of British Columbia.
- Read the Grow Me Instead Brochure to learn about BC's most 'unwanted' plants, along with recommended alternatives.

Another Invasive Plant Pull is planned during our 24th-25th June Blitz 2017….hope you can lend a hand!

The Biological Connections between Gabriola Pass, Kendrick Island and Valdes/Lyackson Island

Warren Warttig and Marja de Jong Westman

During BioBlitz 2016 Warren Warttig, Doug Cochran and Daniel Zayonc completed an underwater survey to assess the marine habitat within the Rockfish Conservation Area west of Kendrick Island. There were many reasons for doing this. They wanted to get an idea as to whether the area was suitable for rockfish and to continue to gather information for the larger Rockfish Conservation Area project VIC is collaborating on with the Galiano Conservancy. Another driver was to add to information gathered during coastal waterbird surveys conducted in the area over the last 6 years by Marja de Jong Westman. Coincidently, the VIC was also asked to comment on plans for the rebuilding of a breakwater by the West Vancouver Yacht Club at Kendrick island.

Waterbird surveys indicate that Gabriola Pass-Kendrick Island, and the shorelines of neighbouring islets and Valdes/Lyackson Island are important sites for resident and migratory waterfowl and shorebirds. For example, the eastern shoreline of Kendrick Island is an important site for Harlequin Ducks. Harlequin Ducks are generally not found in high numbers on our coast and preferentially select sites of high wave action. In a single count in April of 2009, 83 individuals were counted riding the waves along the shores of Kendrick Island! Shorebirds have been found to gather onshore at Kendrick Island, particularly on the section jutting out into Gabriola Pass and the

Harlequin Duck (male)

The Biological Connections between Gabriola Pass, Kendrick Island and Valdes/Lyackson Island

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eastern sweep down to the islets and Valdes/Lyackson Island. On many occasions,

Black Turnstones in flight

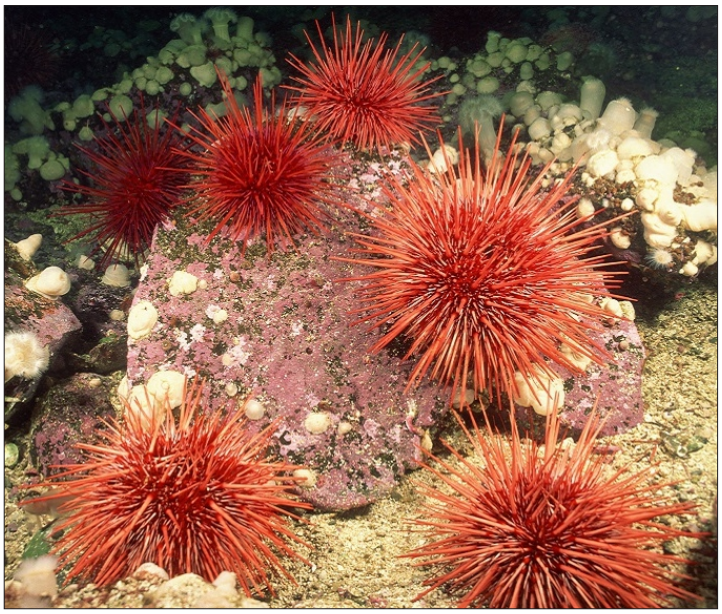
large flocks of black turnstones and surfbirds are seen and oystercatchers are nearly always guaranteed. The waters in the bay between Kendrick and Valdes/Lyackson Island are inhabited during the fall and winter months with bufflehead, common merganser, and grebes. Slightly offshore, all three species of cormorants have been observed and large flocks of surf scoters. Gabriola Pass itself with its more active waters, are preferred sites for goldeneye and rarely are pigeon guillemots not sighted.

During both the waterbird surveys and last year's underwater viewing, we found evidence of historic use by First Nations peoples as bivalve harvesting has led to rich shell midden sites in the bay between Valdes/Lyackson and Kendrick Island. The underwater surveys of last summer indicated that these waters are still a bivalve hotspot.

So what did Doug, Warren and Daniel find? The survey covered an area of 1805 m and lasted close to an hour. Video was recorded the entire time! The drop camera route started at low tide (and slack current) off the northwest end of Kendrick Island and went in a southeasterly direction paralleling the island roughly 30 to 50m off-shore.

Tube Anemone

The basin between Kendrick Island and Valdes/Lyackson Island was found to be highly productive. Thousands of siphons (likely of tube-dwelling anemones and horse clams), hundreds of dungeness crabs and red rock crabs and several thousand clams were seen! They caught a surprised Starry Flounder on film. The bottom was also coated with several species of seaweeds, nudibranchs, jellyfish and oysters. A rich area indeed.



Red Urchins

As they entered Gabriola Passage they were struck by the vast numbers of empty shells. This area was estimated to be moderate rock fish habitat. The centre of Gabriola Passage marine habitat was primarily sea urchin barrens. Sea urchins, as voracious feeders on seaweed, can clean up every last morsel of algae in a short time frame and leave behind scoured rocks. The floor of moderate to small sized cobble dominated by red sea urchins in Gabriola Passage was estimated as being poor rock fish habitat.

The habitat in the last 150m of the survey told a very different story east of Gabriola Passage. The underwater world was dominated by large rocks and steep creviced rock outcrops. Finally… ideal rock fish habitat!

The types of data gathered during these biological surveys directly informs the plans and work of the Conservancy. We plan to complete a survey of two areas again this summer.

Understanding the Relationship:
The Valdes Island Conservancy and The Lyackson First Nation

Conservancy First Nations Committee
March 20, 2017

Valdes/Lyackson Island is the hereditary lands of the members of the Lyackson First Nation, and because its members wish the Island to remain in its pristine state, the Conservancy and the First Nation share a common interest.

Working towards this common interest, successful meetings took place in April 2016 and March 2017 between members of the Conservancy's Board of Directors, First Nations Committee, and the First Nation's Chief and Council. As a result, a very positive and productive relationship has developed.

Within this relationship, both parties acknowledge that the First Nation's interest in land is different from ours. Conservancy members are owners or lessees of land obtained from the Province. The First Nation's members are holders of reserve lands obtained from the Provincial and Federal governments, but also maintain a treaty right to the Island. These differences are important and must be respected and acknowledged. Respect is the basis for a positive relationship where different interests in land can co-exist in a complimentary fashion and without conflict.

1. Understanding the Approaches to the Relationship

- The Conservancy's approach is based on the correct interpretation of its Constitution:
  - The Conservancy's mandate is distinct from its members' land interests.
  - The Conservancy's mandate is limited to the purposes of promoting and encouraging the protection, preservation, restoration, beneficial use and management of the plants, animals and natural communities of the Island, and the development of trails, by consent, for Conservancy purposes.
  - Any actions taken by the Conservancy must be found to be within its Constitutional purposes, which by the terms of the Constitution, eliminates actions that are in conflict with the First Nation's rights.
  - By Board policy, the First Nation's right to expand its Reserve lands should not be directly challenged for two reasons: any attempt to do so will be seen as an interference with established rights; and the decision-making with respect to those rights is outside of the Conservancy's Constitutional mandate.
  - Complete transparency of our intentions and actions must be maintained with the First Nation at all times.

- The First Nation's approach is based on established rights stated in the Constitution of Canada:
  - The *Constitution Act, 1982*, is the paramount law of Canada.
  - Section 35 of the *Constitution Act* states that the existing aboriginal and Treaty Rights of the Aboriginal People in Canada are recognized and affirmed, and s. 35 (3) states that, for greater certainty, Treaty Rights includes rights that now exist by way of land claims agreements or may be so acquired.
  - The First Nation is pursuing a land claims agreement as part of the BC Treaty process.
  - Federal and Provincial Statutes flow from powers that have been granted to the Federal and the Provincial Governments as a result of the *Constitution Act*.
  - From the Federal and Provincial Statutes flow Federal and Provincial Regulations.
  - From those Statutes and Regulations flow Provincial policies, including the creation of the Islands Trust.

- From Provincial Statutes and Regulations flows the ability to establish Societies such as the Valdes Island Conservancy.
- The powers and responsibility contained within a Society's By-laws and Constitution are completely subordinate to all of the other levels of legislation and the *Constitution* as cited above.
- Thus, the First Nation is exercising a Constitutional right to negotiate a land claim pursuant to the paramount law of Canada. This right requires utmost respect free of interference.

2. The March 5, 2017 Meeting with the First Nation's Chief and Council and Coordinators

The meeting was a gracious union of common interests and cooperative approaches. The success of the meeting was grounded in a mutual understanding of each of our interests and intentions. The discussions around the table were fundamentally constructive as we were able to discuss a broad range of topics and develop solid plans that will translate words into actions on the ground.

The discussion focused on an update on present and future cooperative projects, and an explanation of the Conservancy's key governance principles as described above.

The update on projects included the following:

Cooperative actions have already occurred on the following projects:

- Porlier Pass Dumping
- Rockfish Conservation
- Breakwater rebuilding at Kendrick Island
- Wakes Cove Provincial Park –visitor guidelines

Cooperative actions going forward:

- **Gabriola Tanker Traffic**: agreed that a formal response is needed
- **Deer**: issues identified and discussed about unregulated hunting and open access points to the island via Island Timberlands Dock; consider additional hunting signs; consider contacting Island Timberlands about the liability they are incurring in keeping their dock open.
- **VIC Conservation/Education Committee projects**:
  - Bluebird box monitoring
  - Cooperation with the purple martin recovery team to build and mount nesting boxes in 2017 and to develop a monitoring program
  - Distribution of information on white-nose syndrome found in bats (posters installed at Blackberry point last summer)
    - Caves on Valdes/Lyackson and other locations host colonies of native bats
    - This fungal disease is spread via human activities in bat roosting sites, such as island caves
    - Agreement on posting and publicizing this concern to islanders and island visitors (e.g. kayakers and cabin owners) to remain out of all caves on the island
    - Future bat box project identified
  - Invasive Species Project:
    - First Nation and VIC representatives will map invasive plant species on island over a 4 day period in August and develop a plan for control and native plant restoration; consider applying for a Habitat Stewardship grant for restoration of natural landscapes
  - Participation in the BioBlitz
  - Future Barn Swallow survey identified
  - Concerns about increasing numbers of Harbour Seals and decline of salmon

3. Next Steps

Within our relationship, the Conservancy is looking forward to working with the First Nation to expand our understanding of what we can achieve together.

BC Purple Martin Recovery Stewardship and Program

Charlene Lee

Purple Martins (*Progne subis*) are North America's largest swallow. These birds are skilled acrobatic flyers that catch insects on the wing. In early spring the western subspecies (*Progne subis arboricola*) breed along the West Coast of North America from California to British Columbia and winter in South America. In BC, Purple Martins once nested as far north as Campbell River, the historic northern limit of their range. Preferred sites for their breeding colonies were in woodpecker cavities in dead snags in open forest and burned over areas.

Purple Martins (*Progne subis*) Photo: Ralph Hocken

Western Purple Martins are now a provincial Species at Risk (Blue-listed, Vulnerable) in BC. Purple Martin numbers decreased due to loss of nesting habitat from logging, agricultural land clearing, fire suppression, urban development and competition for remaining natural nest cavities from introduced bird species such as European Starlings and House Sparrows. By 1949, Purple Martins had virtually disappeared from the BC Lower Mainland and by 1985 there were only about 5 breeding pairs remaining on Vancouver Island.

In an effort to rebuild the martin population, a volunteer nest box program was started in 1985. Nest boxes were first installed at Cowichan Bay when martins were observed nesting in piling cavities at this estuary. The success of this bird box program and another located around Esquimalt Harbour helped rescue the BC Purple Martins from extirpation (local extinction).

Purple Martin numbers increased slowly and steadily and by 1989, 14 nesting pairs were located at 3 nest box sites and 1 piling location on southern Vancouver Island and by 2000 their numbers had grown to about 200 pairs at 16 colonies.

In 2002, the nest box program was renamed the BC Purple Martin Stewardship and Recovery Program when Georgia Basin Ecological Assessment and Restoration Society (GBEARS) assumed responsibility for the program. The scientific assessment and monitoring program implemented with provincial government support in 1998 was retained and enhanced to sustain the scientific credibility required for funding support.

As BC's Purple Martin population increased and colonization of more marine sites occurred in increasing numbers nest box sites were installed at freshwater sites in the Lower Mainland/Fraser Valley area in 2005 and on the east coast of Vancouver Island in 2006. There are currently 1700 nest boxes distributed among 100 marine and 20 freshwater locations and Purple Martins have expanded their range to include the east coast of Vancouver Island from Victoria to Port McNeill, and on the west coast of Vancouver Island at Bamfield and up into the Broughton Archipelago. They are also found at nest box locations in the Lower Mainland and along Sunshine Coast. In 2016, there were some 95 active colony sites, supporting 1200 pairs which raised ~ 2900 young of which 1755 were banded! Success indeed.

Juvenile Purple Martin

Over 200 volunteers are actively involved in this successful recovery program, including many individuals, First Nation groups, naturalist/conservation groups, corporations, federal, provincial, regional and municipal government departments, and universities.

With this in mind, the Valdes Island Conservancy is welcome to lend a hand!

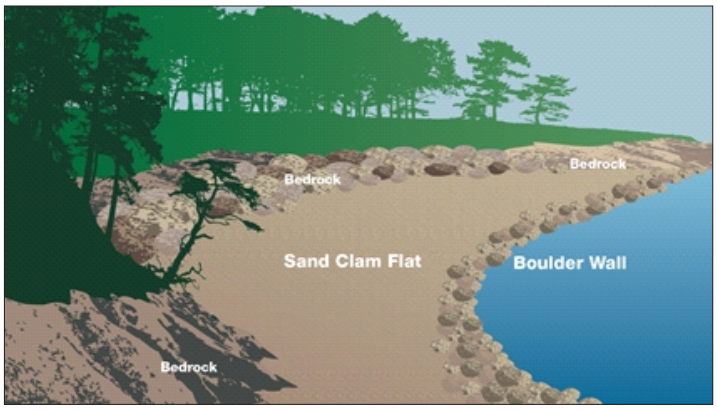
Listening to the Sea, Looking to the Future: "Clam Garden" Restoration in the Gulf Islands

Restoring intertidal ecosystems in partnership with Coast Salish Nations

Hidden by tides…Kelly Forbes,
Outreach and Interpretation with the Clam Garden Restoration Project

Photo: Ian Robert Reid

Boaters beware; rock walls linger beneath high tides in the Salish Sea. Built generations ago by Coast Salish peoples, these intertidal features are part of an ancient form of mariculture that has not been practiced in the region for a hundred years.



Graphic: Parks Canada

"Clam Gardens"

Long ago, First Nations peoples, from Alaska to Puget Sound, observed a relationship between beach slope and shellfish productivity. They began to modify their beaches by building rock walls to trap loose sediment; slowly, transforming the once sloped beaches into flattened terraces. Coupled with routine maintenance and active management such as digging and tilling, these walled-beaches produce greater numbers of faster growing shellfish, even today (Groesbeck et al, 2014; Neudorf et al. 2017).

"Clam gardens", as they are commonly known today, are just one of many intertidal features built by Coastal First Nations to encourage food production. In different regions, set at different tidal heights, these walls can encourage a wide range of species: from clams to octopi. The construction and maintenance of these features underpins the complex understanding that First Nations people have of marine environments (Hul'q'umi'num-GINPR Committee, 2016; Caldwell & Lepofsky, 2012).

An eco-cultural project

Photo: Ian Robert Reid

The Clam Garden Restoration Project is a multi-year experiment led by Hul'q'umi'num and W̱SÁNEĆ Nations and the Gulf Islands National Park Reserve (GINPR). Guided by traditional knowledge and informed by science, the project aims to determine the impact of ancient mariculture techniques on intertidal ecosystems by restoring two "clam garden" sites: at Russell Island and Fulford Harbour.

By looking to the past, and incorporating technologies used successfully by First Nations people for thousands of years, the project hopes to strengthen the suite of tools made available to today's (and tomorrow's) resource managers. With time, the project could also provide opportunities for Coast Salish Nations to reclaim traditional practices, and rebuild connections to the GINPR.

Listening to the Sea, Looking to the Future: "Clam Garden" Restoration in the Gulf Islands

Restoring intertidal ecosystems in partnership with Coast Salish Nations

Continued from page 11...

From legacy to reality

Photo: Hugo Wong

The "clam gardens" at Russell Island and Fulford Harbour are known as "legacy gardens." For a hundred years, they were left untended. As a result, their rock walls have since collapsed, as has their ability to support healthy populations of shellfish.

Gulf Islands
National Park Reserve

Over the next 3 years, Coast Salish peoples and Parks Canada will continue to gather at these sites to rebuild the rock walls and care for the beaches as they have been tended for millennia. Slowly, with time, these important cultural sites will be restored, for the benefit of today and future generations.

For more information about "clam gardens," or the Clam Garden Restoration Project please visit:

The Clam Garden Network:
https://clamgarden.com/
Clam Garden Restoration Project:
http://www.pc.gc.ca/eng/pn-np/bc/gulf/natcul/natcul6/natcul6b.aspx

PLEASE NOTE: Modified clam beaches ("clam gardens") are important cultural sites for Coast Salish peoples. Please ensure you attain prior permission to access these beaches from the appropriate First Nations councils.

Parks Canada
Canada

Bats and White Nose Syndrome

Valdes/Lyackson Island is known to be home to several species of bats. Cabins and caves are frequented by these specialized insect-eating mammals. **We can help in their survival by staying out of the caves on the island** and informing ourselves about the problems and spread of a fungal infection triggering steep declines in bat numbers. See article below posted on the BC Government News Website.

The Province, in partnership with the BC Community Bat Program and other concerned groups, are asking the public to be on the lookout for dead or sick bats that may have contracted an invasive fungal disease called White Nose Syndrome.

Little Brown Bat

Bats and White Nose Syndrome

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White Nose Syndrome has not been detected in British Columbia; however it was detected in Washington State in 2016 and the risk of its arrival is very high. The disease, which refers to a white fungus that grows on the muzzles or bodies of bats, has killed over 6 million bats since arriving in the eastern United States in 2006 and reaching Canada in 2010. White Nose Syndrome does not infect humans.

Little Brown Bat with White Nose Syndrome

White Nose Syndrome kills 80% to 100% of Little Brown and Northern Bats, resulting in an emergency listing of both these species under the federal Species at Risk Act in 2014.

The Province is responding to the risk of White Nose Syndrome by increasing surveillance, outreach and developing a series of best management practices for protecting bat populations.

The Province is also working with bat experts throughout B.C. and beyond to ensure a co-ordinated approach to detect and mitigate the impact of White Nose Syndrome on bat populations in British Columbia.

This includes working to better understand bat behaviour and use of habitat in B.C., to help design strategies to protect bats, as well as to help them recover from the effects of the disease.

Additionally, the Ministry of Agriculture's Animal Health Centre is one of two labs in Canada nationally recognized to test for the fungus that causes White Nose Syndrome.

Bats are important to both the environment and economy. Bats are major predators of invertebrates, helping to control forest, agriculture and urban pests. For example, endangered Little Brown Bats can eat 600 mosquitoes per hour. Researchers estimate that bats provide billions of dollars in pest control services annually in North America.

Please help by reporting bats that are flying or found dead, during winter and early spring, to the BC Community Bat Program at 1 855 922-2287 or email: info@bcbats.ca

Do not attempt to capture sick or injured bats and do not touch a dead bat with your bare hands due to a risk of rabies. If you do find a dead bat, collect it in a plastic bag using leather gloves and label the bag with the date, location, your name and contact information, then put the bag in the freezer and contact the BC Community Bat Program.

Learn More:

For more information, please visit: www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-health/wildlife-diseases/white-nose-syndrome

BC Community Bat Program: www.bcbats.ca/

Canadian Wildlife Health Co-operative: www.cwhc-rcsf.ca/wns.php

Bats of British Columbia: www.bcbat.ca/

VIC Committees

- Safety Committee – Dan White ; **danwhitevaldes@gmail.com**
- Legal Affairs Committee – Allan Doolittle; **aldoolittle@gmail.com**
- Lands and Trails Committee – Julian Noel; **jnoel64@gmail.com**
- Conservation and Education Committee – Marja de Jong Westman; **mdjw@telus.net**
- First Nations Committee – Doug Campbell; **drcfcj@gmail.com**
- Membership Committee – Diane Burton; **diane.burton@ufv.ca**
- Revenue Committee – James Lang; **james.lang@colliers.com**

Hot Off The Press
Banned substances…

Environment Canada recently published a list of substances which they advised not be used near water bodies. This is in an effort to mitigate harmful impacts to aquatic life.
Many commonly used household products are highly toxic. What does this mean for the Valdes/Lyackson Island cabin community? Try to avoid use and direct entry of these compounds into the island's waterways…wetlands, streams and the ocean.
A few tablespoons of bleach in your rainwater tank only lasts for a short while so this is not an issue…but be cautious about the use of some of the other products. See the list below.
Ivory Soap and Irish Springs Soap were a bit of a surprise to the newsletter editors and we can't imagine islanders using scrubby bubbles bathroom cleaner in the outhouse! But if you do…try vinegar instead!
The value of this list is for us all to realize that the items listed below (and many others as this list is edited) are acutely lethal to fish. What does acutely lethal mean? 100% mortality of living things at various concentrations from 0.1% to 40%....we will spare you all the numbers. Just be thoughtful as we are living atop some delicate and globally valuable ecosystems on Valdes/Lyackson Island!

- **Clorox Bleach**
- **Irish Springs Soap**
- **Shout Stain Remover**
- **Tide Detergent**
- **Antibacterial soaps of all sorts**
- **Sunlight dish soap**
- **Vim Bathroom cleaner**
- **Lysol max coverage toilet bowl cleaner**
- **Ivory soap bar**
- **Oven and grill cleaners**
- **Scrubby bubbles bathroom cleaner**
- **Spray Lord and Mayfair soap bar**

Valdes Island Conservancy and Community Dates
For Your Calendar…

Annual BioBlitz June 23 – 25th

Meet at Westman's cabin in Starvation Bay on Friday evening at 7:30 for orientation.
Birds, botanicals and beaches on Saturday, June 24th followed by a potluck dinner at Westman's cabin and evening bat monitoring.
Data entry and invasive plant pulls are Sunday's tasks.
Contact, Marja de Jong Westman mdjw@telus.net

Annual General Meeting

Saturday, September 2nd
11:00 Campbell's Cabin, Noel Bay

Membership Renewal

Due by Valdes Days, August 6th 2017.
Forms included,
contact Diane Burton diane.burton@ufv.ca

Community Activity Dates

Valdes Days in Starvation Bay, Sunday August 6th
...games start with the low tide at 11:45 AM

Native Camus (*Camassia*) in Garry Oak meadow