



VALDES ISLAND CONSERVANCY NEWSLETTER

President's Message

Alexandra Tait (*nee de Jong Westman*)



Greetings from the Yukon! As I write this, winter has descended and memories of summer days on Valdes keep popping up. Thinking back to last summer, I want to say thank you to all members who attended the 2015 AGM at the Campbell's cabin. The level of involvement and engagement shown by members at the meeting was wonderful and is so vital to the long term sustainability of the Conservancy. I hope that it continues into the years ahead.

Since you last heard from us, the Board has set a standing monthly meeting date, has met four times since the AGM, and held a special in-person Strategic Planning meeting. Through our general board meetings, we have developed comprehensive Director Expectation's documents, to which all Board members have committed. We have formalized our Committees and developed focused Terms of Reference to act as guiding documents for each of the Committees. And, we have transferred the majority of our communications to an online project tool called "Basecamp". This is enabling the participation of VIC members involved in our Committees, AND more importantly, keeps conversations, board business, important documents, and the history of

the VIC in an organized and secure location, readily transferable to any new incoming Directors.

All of our actions and directions are governed by our Mission Statement (you can find this amongst many other important information documents on our website). This Mission Statement is intended to provide the Board with general guidance and direction in the pursuit of projects and initiatives involving the people and the lands associated with Valdes Island. As our Committees have become significantly more established over the last year and a half, we now track our projects, (past, present, and future), and are aiming to establish more comprehensive work plans for each Committee, such that as the Board evolves, the initiatives and ideas of past Directors are maintained and projects completed.

Further, as we become more aware of who the VIC is through this process, we recognize that a collective position on regional, and potentially provincial and national issues of importance is useful. As it stands, the VIC has a voice in rockfish conservation programs in the Southern Gulf Islands, has established its position statement on climate change, has spoken out against the dumping of material in Porlier Pass, collaborated on biological inventory and monitoring projects, and is regularly being sought to provide information on hunting regulations on Valdes Island.

The tireless work of the volunteer Board of Directors could continue to be described, but I'll hold off until the next eblast, BUT if you are itching to know more, the VIC Committees are still looking for volunteers, so please contact us if you are interested in becoming more involved!

Happy 2016 to everyone and I look forward to seeing you on the island and at the 2016 AGM... **Saturday July 30th, 11:00am, Campbell's cabin, Noel Bay.**

Inside This Issue...

President's Message	1
BioBlitz	2-4
Bird Box Project	5
Hunting Safety Report	5
Rockfish Conservation	6-7
FN Communication	8
Membership Update	8
Invasive Plants	9-10

Mission Statement

To preserve, protect and restore the lands and waters of Valdes Island, and the smaller islands in its surrounding waters, for the plants, animals and natural communities that represent diversity of life and Gulf Island ecosystems, and for the beneficial use and management of the scientific, historical, cultural, scenic and compatible outdoor values of these areas.

Board Members:

President	Alexandra Tait
Vice President	Warren Warttig
Secretary	Pat McAlister
Treasurer	Annette Hurd

Members at Large:

Marja de Jong Westman
Doug Campbell
Bruce Livingston
Diane Burton
Julian Noel
John Hurd
Tim Shaddock
Dan White



Botany walking group in Heather Frazer's meadow

A BioBlitz can be described as ... "an intense period of biological surveying in an attempt to record all the living species within a designated area. Groups of scientists, naturalists and volunteers conduct an intensive field study over a continuous time period (e.g. usually 24 hours)." To the second annual one on Valdes Island (Lyackson Island) we can add a few more descriptors.

By sea, by land, by boat, by bicycle, by magnifying glasses, by cameras, by binoculars, by bushwhacking...some 30 islanders over the course of two days in early June 2015 took count of as many beasts and botanicals as possible. Highlights? Where to start. Certainly Warren Warttig's and Jeff Marliave's efforts to search for rockfish gets honourable mention. These two were joined by Anne Casselman and Dave Bonar on one day and Alana Carswell on another as they scoured by boat and underwater cameras to see if the island's offshore reefs would give up their secrets. The reefs did, but as it often happens, when you are searching for one species, others show themselves up. So the two-day search by boat yielded copper rockfish along with black eye goby, kelp greenling, lingcod, and snake prickles along with the vital supportive collage of invertebrates which are at the base of this functioning ecosystem--sharp-lipped boot sponge, red-trumpet calcareous tube worms, glassy plume hydroids, encrusting bryozoans and then at the "root" of all, the photosynthesizers: sugar-wrack kelp, encrusting coralline algae and the ever so important eel grass. The list goes on. At our Saturday night dinner, mid-stream of the BioBlitz, we fired up technology and had live movies of this underwater world playing in the Westman's cabin.

While the water-world was unfolding, we had birders active on land and atop the sea. Rob Butler's shore survey documented 18 species--from an American pipit and some 49 black turnstones on shore, to 16 harlequin ducks seeking the nutrient-rich writhing intertidal waters of Gabriola Pass at the top end of Valdes Island. This group of harlequins was composed of just males as these young unpaired souls come back to sea earlier than the rest, leaving the breeding pairs in the interior. Valdes Island is a harlequin duck hotspot. Winter coastal waterbird survey counts have counted over 70 individuals at the top end of Valdes.

But what of the June meadows and forests of Valdes? Bird songs rang loud once again in the island's extensive mixed deciduous forests which serve as a breeding ground for so very many songbirds. Over 44 species were seen and heard on the 2015 count! Highlights include confirmed nesting

sites of a house wren (*Troglodytes aedon*), pigeon guillemots (*Cepphus columba*) and peregrine falcons (*Falco peregrinus*); as well as sightings of several individuals of two threatened species--the olive-sided flycatcher (*Contopus cooperi*) and the barn swallow (*Hirundo rustica*). Leaders Rob Butler and Michael Dunn were joined by VIC board members Doug Campbell, Doug Campbell's daughter Georgia, Bonar's relatives and visitors, Annie Hervieux and Cole Zmurchok and island naturalist, Pete Reveley.



Young BioBlitzers tidepooling on Kendrick Island

The marine crowd obtained permission from the West Vancouver Yacht Club to venture on to Kendrick Island. The choice was made to attend this site as the area is such an active seabird and shorebird area during the early spring, fall and overwinter. It was decided to search for clues as to what lures the birds. The take home message? It is the world of the intertidal that is healthy as the "above tideline" area of the island is a shadow of its natural self. "Crops" of non-native English ivy (*Hedera helix*) and bigleaf periwinkle (*Vinca major*), planted by early residents have run havoc. The island is recoverable though. With a few hours of volunteer plant pulling over the next 3 years we could very likely denude the island of invasives and allow the native coastal bluff meadow species to re-root. The VIC might pursue a cooperative collaboration with the Lyackson First Nation, and the WV Yacht Club to remove invasive plants from Kendrick Island so as to protect the biological health of neighbouring Valdes Island.

Continued from page 2...

It was not all together surprising that the lack of an overlay of rocks in the intertidal up at the north end of Valdes and on Kendrick didn't hold an abundance of marine invertebrates, as the microhabitats under the rocks are what classically support a rich biodiversity of invertebrate species. After leaving the rather lowly populated shorelines of Kendrick Island, the "marine group" which consisted of several VIC members and their boats (Hurds, Batemans, Westmans, Livingstons) along with Elizabeth Kozak, Dan White's family and friends, the Hillbrecht family, and biologist guides Janet Canning and Marja de Jong Westman, headed back to the waters of Trincomali Channel and Blackberry point. As I write this report (now December 31st) the memories of our day on the shorelines of Valdes are acute. We left Kendrick Island after a picnic amongst the native rocky mountain junipers (*Juniperus scopulorum*), meadows of spent blue camas (*Camassia quamash*), and travelled with joy along the island's western shores. The tides were rising but we peeked into the sea anemone-laden and cormorant-nested sandstone cliffs before setting foot in the INCREDIBLY rich intertidal areas of Blackberry point. Yes,



Rough Piddock, *Pholadidea ovoidea*

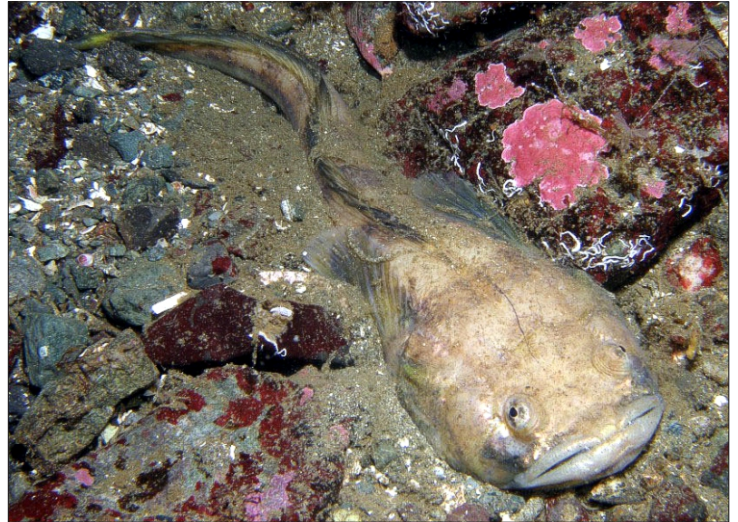
incredibly rich is in capital letters. For all my now over 40 years of seaside explorations, Valdes Island's western shores are unparalleled. I wish I knew why...but I will venture to guess that the island's steep cliffs, tumbled rock intertidal, swift water passages of Trincomali, shallow sun-soaked shorelines thick with seaweeds, First Nations cultural modifications of rock walls forming clam gardens...are all holding hands to support a wealth of life I have not seen anywhere



Surveying cliffs on west side Valdes

else in BC. And what did we find? If I had to reduce all of what we saw to one story, it would be the story of the rock (rough) piddocks (*Pholadidea ovoidea*)! A clam which by nature of its shell design can burrow into rock and create a space for itself to reach up its siphons to the food-laden waters while hiding within the ultimate protection of rock! And then amongst these fascinating and somewhat bizarre clams there were oh so many burrowing sea cucumbers (*Cucumaria miniata*)! I can never look at one of these cucumbers without being reminded that they are a close, genetic cousin of the vertebrate line! Yes, you and seastars and sea cucumbers hold hands embryonically and evolutionary. (Join me over a glass of wine at this year's

count June 4/5, 2016 should you want more details!) After a day at sea and a day along seashores, groups coalesced on the final day of the BioBlitz to simply walk along the "Blue Trail" and island cabin trail. Once again



Staghorn sculpin, *Leptocottus armatus*

"Rivers Meadows" and "Heather's Meadow", were hotspots. The seaside meadows atop rocks of sandstone in the Gulf Islands are becoming world renowned. We found the rare native seaside lotus (*Lotus formosissimus*), spring gold (*Lomatium utriculatum*) in seed and harvest brodiaea (*Brodiaea coronaria*) and nodding onions (*Allium cernuum*) in flower, several native orchids - one being the spotted coralroot (*Corallorhiza maculata*) and evidence of healthy populations of chocolate (*Fritillaria affinis*) and white fawn (*Erythronium oregonum*) lilies.

And how did the weekend end? We found the bicoloured flaxflower (*Linanthus bicolor*) which may be at the limit of its range in BC on Valdes Island and leaf-cutting bees (*Megachilidae*). These solitary bees were found to have cut out small pieces of native sword ferns (*Polystichum munitum*) along the Blue Trail, and then lined nest holes in the ground. Incredible!

Species lists of the last two BioBlitzs can soon be found on the VIC website.

BioBlitz 2016 is planned for June 4 and 5th.... with the lead up information evening being held at Westman's cabin in Starvation Bay on Friday, June 3rd at 7:30 p.m.

Let Marja know ahead of time if you wish to throw your hat in the ring....mdjw@telus.net



Ella shows off a red rock crab to Sue, Marja & Janet



Author and budding biologist wading into the waters of Trincomali Channel

I love the beach and Valdes!!!

For this year's BioBlitz I went to Kendrick Island and Blackberry Point.



Jane inspecting sea of invasive ivy

On Kendrick Island I saw lots of awesome things! I also saw how badly the invasive plants had affected the small island. Some invasive plants I saw were periwinkle, hairy cat's ear, which looks like a dandelion and English ivy.

Jack pot! I saw eel-like fish called gunnels under rocks and I found a half-dead, half-alive one.



BioBlitzers at WVYC dock at Kendrick Island

Then we were off....on the way to Blackberry Point I saw birds living in the rocks. Bird poop had dripped out of the holes they lived in and made the rocks all white. At Blackberry Point I saw weird but cool bivalves that can make perfect holes in rocks, which are called piddocks!! We also found its shell!!!!

I caught a red rock crab. I love to find and catch crabs with big claws. I think that it's cool to catch crabs! I caught a helmet crab and I found out that the helmet crabs are one of the fastest moving crabs along BC's coast. We found a moon snail egg sack and we saw a moon snail shell. I saw a really bright orange sea star, I loved it. I learned that you can put a clam and a sun star together and the clam will put out its foot and try to jump away. What do you think the clam is thinking??

The BioBlitz ROCKED!! I can't wait to see what we find next year!! Thanks to everyone for making this day so special!



Moon snail shell and an egg case

BioBlitz 2016, June 4 and 5
(orientation evening June 3rd)
This year's BioBlitz will once again include: a birding hike, an intertidal exploration, a plant search on the island and cabin trail and a new activity - an invasive species plant pull! Contact Marja for more information mdjw@telus.net

The Bird Box Project

Marja de Jong Westman

5

One of the ideas growing out of our first BioBlitz in 2014 was the bird nest box project! As expected, participating biologists were positively gleeful about both the variety of birds seen and heard AND the richness of habitats for breeding birds on Valdes Island. They were also gleeful about the absence of cats, as cats are known to kill hundreds of millions of songbirds each year (Cornell Lab of Ornithology, 2014).

All these factors combined make the island an ideal site to put up a few nest boxes. Islander Pete Reveley offered to



Bluebird approaches a nest box

make the boxes and produced 20 of them last summer. While the boxes are designed to lure bluebirds, they may be occupied by swallows and other birds of similar size with similar nest-type preferences. The boxes should be mounted 1m to 5m off the ground to prevent predation and should be accessed via a clear flight path. Sunny warm spots are also inviting.

Edge habitats are good for birds, because these allow for both quick access to open feeding spots and easy access to protective shrub cover. You'll need to clean out the box each year prior to each nesting season, somewhere between early September and the end of the following January. It is also helpful to document its location! We would like to get up as many boxes this year as we can, ideally before the end of February, but given the newness of the project, the newsletter's time line and the fact that many birds nest twice during a full breeding season we can be a bit elastic with our approach.

Anyone who is interested in getting a free box and wishing to support our avian dinosaur friends, please contact me at mdjw@telus.net. Delivery & directions included!

A few boxes are up already. Perhaps you've seen them? If you picked one up at the AGM and need more information about placement, check out this link <http://nestwatch.org/>



Hunting and Firearms Safety Report

Pat McAlister

The Conservancy has undertaken a project to improve hunting and firearm safety on Valdes (Lyackson) Island. The project stems from residents' concerns about the proximity of firearm use to residences and damage to buildings from same. Further, there appears to be a disregard for regulations for firearm use by hunters active on the island.

In September 2015, the Conservancy's Lands and Trails committee met with Provincial Fish and Wildlife and Conservations Officer Services to discuss a downgrade from rifle hunting to shotgun and bow and arrow only. At that meeting it was decided that a downgrade was not warranted at this time and the Conservancy was encouraged to install appropriate signage on the trail network of Valdes Island.

In response to the plan suggested by the provincial government representatives, signage was developed stating that hunting and rifle discharge is forbidden in the vicinity of the eastern shoreline. As you walk the trails, you will notice that signs have been placed on trails leading from the Crown Lands to the eastern and southern shores of Valdes.

If you see any damage to these signs or think a repositioning is needed, please send an email to Patrick.mcalister@shaw.ca

If you observe the discharge or unsafe use of firearms within the prohibited zone, please document the situation and inform

RAPP (report all Poachers and Polluters)
1-877-952 7277 <http://www.env.gov.bc.ca/cos/rapp/form.htm>
with copy to Patrick.mcalister@shaw.ca of your report.



There are two Rockfish Conservation Areas (RCAs) associated with Valdes (Lyackson) Island; one on the northern tip between the island and Gabriola island and the other along the south east end of the island (figure 1). These areas are set aside for the protection of rockfish. Rockfish mature late, produce relatively few offspring, and have low dispersal distances. These characteristics make their populations susceptible to overfishing. In this regard, no hook and line fishing is permitted in these areas. Even without fishing, their local populations will take decades to recover from years of over-fishing.

One problem we see frequently is people fishing rockfish illegally within the RCAs. Another issue with the RCAs is that due to the depths (too deep to scuba dive) we know little about the habitat.

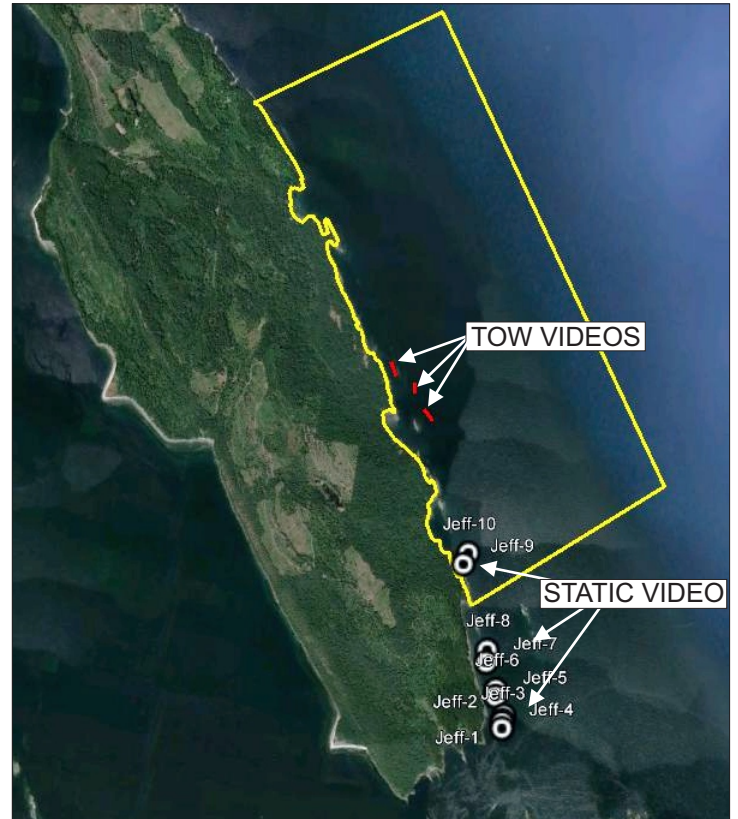


Location of RCAs adjacent to Valdes Island

Last year, the Valdes Island Conservancy partnered with the Galiano Conservancy to apply for funding for Rockfish Conservation Area (RCA) research. Our partnership received almost \$30,000 with the Galiano Conservancy leading the project. The project includes funding for assessment of the RCA habitat and signs and information brochures to help educate people fishing recreationally about the fishing closures and rockfish biology.

A project implementation planning meeting was held at UVIC in February 2015. UVICs involvement ended up including three Masters Students and two Professors who had use of a science boat and high tech marine monitoring gear. This group and other Galiano volunteers were to focus on the three RCAs associated with Galiano. The Valdes Island

Conservancy (VIC) volunteers were to include Jeff Marliave and Donna Gibbs from the Vancouver Aquarium (Jeff has participated in both our BioBlitzes) and me with our low-tech drop cameras and a beat up boat.



Map of underwater filming

As part of the VIC annual BioBlitz on June 6 and 7, several marine areas around the Island were assessed using two types of drop cameras. Jeff Marliave provided a drop camera array that is left stationary on the bottom to collect video footage (the advantage of this method is it is less affected by poor ocean conditions) and I provided a drop camera that is slowly towed behind a boat just above the ocean floor to collect video footage (the advantage of this method is that more area is observed).

Dave Bonar, Anne Casselman and Alana Carswell assisted with the assessments over the two day BioBlitz. The sea conditions were not that favourable, but we still managed to get some reasonable videos and pictures (and nobody got sick).

Some of the video was taken outside the RCA's to ascertain if there were any differences in species' assemblages. On the south end of the Island, ten stationary and three tow videos were taken. On the north end of the Island three stationary and three tow videos were taken.

During our assessments, we documented sugar wrack kelp, red rock crust, crustose corallines, orange cup coral, encrusted hydrocoral, coarse sea fir and muff hydroids, red-trumpet calcareous tubeworm, white colonial phoronid,

Marten's chiton, lined chiton, mossy chiton, common acorn barnacle, blood star vermillion star, giant pink star, feather star, grey brittle star, red and green sea urchins, California sea pork, southern staghorn and fluted and kelp-encrusted bryozoan, giant rock scallop, eelgrass, wireweed, fringed sea colander kelp, kelp-encrusting bryozoan, barnacle-eating nudibranch, striped and Pacific sea perch, tube-dwelling anenome, fried-egg jellyfish, water jelly, round lipped boot sponge, sharp lipped boot sponge, tennis ball sponge, yellow boring sponge, white sea pen, red rock crab, creeping pedal and giant sea cucumber, snake prickleback, coonstripe shrimp, Pacific prawn, tanner crab, squat lobster (or possibly a galatheid crab), glassy plume hydroid, fringed filament worm, wrinkled dogwinkle, wrinkled amphissa, blackeye goby, kelp greenling, and last but not least, lingcod and copper rockfish.



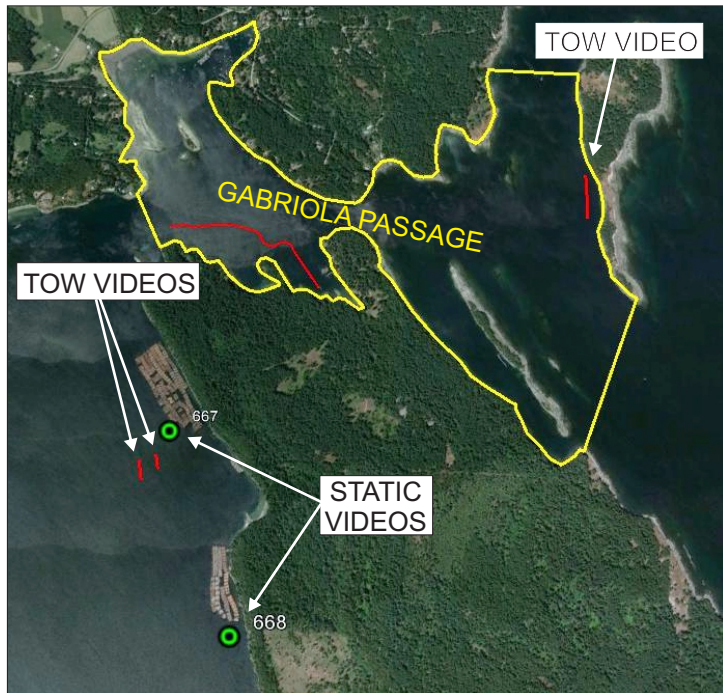
Giant red sea urchin, one of 3 species found in BC



Orange cup coral (a true, solitary coral) with a blood star nearby



Tanner crab, one of 3 species in BC waters to depths of 430m



Map of underwater filming

The information we've documented is some of the first ever collected and weather permitting we hope to complete further assessments in September and especially at this year's BioBlitz.



Young Rockfish



Colonial bryozoan animals alongside coralline algae. Both groups are at least 65 million years old

The primary element of the Conservancy's Mission is to preserve, protect and restore the lands and waters of Valdes Island. The principal objective of the Committee is to create and maintain a strong working relationship with the Lyackson First Nation to further the Mission within recognition of the First Nation's claim to its traditional lands.

Following the Annual General Meeting in August 2014, Committee members --Douglas Campbell, Alexandra Tait, and Patrick McAlister -- recommended to the Conservancy Board, and the Board accepted, a policy to guide the Committee's activities. The policy is based upon adherence to the following principles: property owners and leaseholders, and the Lyackson First Nation hold exclusive land rights on the Island which are to be mutually respected; and in fostering this respect, the Conservancy is committed to working with the First Nation in good faith and complete transparency to address issues of common concern.

To identify issues of common concern, on March 17th, 2015 the Committee met with the First Nation's Lands and Resources Coordinator, Ms. Kathleen Johnnie. During this very positive and productive meeting the following issues of common concern were identified on which active cooperative steps have been taken:

- preservation of the Island's plant, wildlife, and foreshore food resources;
- maintenance and enforcement of fishing closures;
- preservation of the rockfish populations; elimination of invasive plant species;
- advancement of concerns about waste dumping and tanker traffic in the Salish Sea;
- proper maintenance of recreation properties;
- improvement of firearm safety regulations; and
- development of a protocol for fire safety and protection.

To further the relationship building process, a meeting was planned for November 7th between the Conservancy Board and the First Nation's Chief and Council. However, regrettably, on November 5th the meeting was postponed by mutual agreement out of respect for the death of members of the Lyackson community.

At Ms. Johnnie's request, Alexandra and she met at Shawnigan Lake on November 10th for an update on current issues of concern to the Lyackson Chief and Council and the Conservancy. The following conservation issues were discussed with mutual support:

- The Chief and Council's continuing concern about the Kinder Morgan pipeline, the Conservancy's support of the Lyackson's opposition, and optimism on the issue given the change of government federally;
- The on-going Rockfish Conservation Area project as a critical feature of larger marine environment management, and the objective of a comprehensive marine management plan resulting from the project;
- The alarming spread of invasive plant species on reserve, private, and timber lands on the Island, and a proposal that the Conservancy develop a work plan for approval to coordinate concentrated "work parties" over long weekends to systematically target areas of extreme infestation, including obtaining funding for restoration; and
- A plan to identify potential funding sources to build Purple marten nest boxes and to monitor the welfare of the species.

A new date for a meeting between the Conservancy Board and the Lyackson Chief and Council has now been set for Sunday April 24th, 2016.



Membership Update

Tim Shaddick and Annette Hurd

We broke 100! Our membership is now 104 strong and it is very encouraging to have the support and participation from so many islanders who share the Conservancy's Mission Statement goals.

Please assist us in expanding our membership by encouraging your island neighbours to join the Conservancy. The VIC board looks forward to greater membership involvement to help realize the goals of preserving, protecting and where possible, restoring the natural and beautiful surroundings we so value on Valdes Island.

Membership Application

Use the form included with this newsletter or visit our website at

<http://www.valdes-island-conservancy.org>

click on "becoming a member", print the application form, complete it and send it to the noted address. We look forward to hearing from you.



Look out for the VIC booth at Valdes Days, in South Bay on July 31st

AGM Reminder

PLEASE NOTE: The VIC AGM will be held at Campbell's cabin, Noel Bay, Saturday July 30th, 11:00am - 1:00pm

The Top Five -- Invasive plants on Valdes (Lyackson) Island ...Why should You and I care?

Warren Warttig

Invasive plants (sometimes referred to as alien invaders) are plants not native to an area and that are so biologically aggressive that they out-compete native vegetation. Local plant communities have evolved over thousands of years and in concert with this process, wildlife communities have evolved. Left unchecked, invasive species can overwhelm native plant communities and severely alter the habitat which supports native wildlife. General features of these invaders are rapid growth, abundant seed production, tolerance for a wide range of growing conditions and the use of both asexual and sexual reproduction. All combined, these features enable the plants to outcompete the less adaptable and often slower growing native plants.

One of the roadblocks with eradicating some invasive plant species is social. People find some of these plants aesthetically pleasing or like the berries that are produced by a particular plant. A good example of this is Himalayan

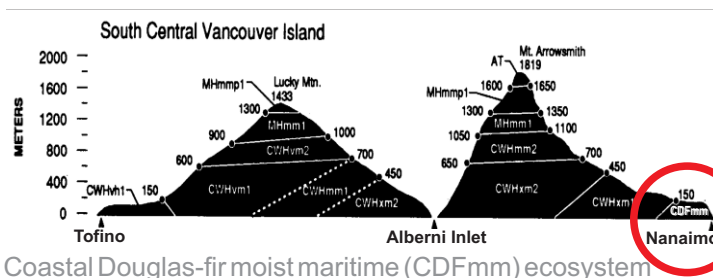


Himalayan Blackberry, *Rubus armeniacus*

Blackberry (*Rubus armeniacus*). I can attest that the berries they produce make for the best margaritas ever, BUT this plant can grow to heights of 12m, out-compete low growing native vegetation through shading and a build-up of leaf litter and dead stems. They also form large dense impenetrable thickets that can limit movement of large animals and take over stream channels and stream

banks. This blackberry species spreads by root and stem fragments and through dispersal of berry seeds by animals (humans included). Yard waste dumping is also an avenue for the plant's dispersal. To compound the problem, its seeds can remain viable for several years. Cutting back of blackberry stands should not be done during the bird-nesting season as the thickets provide good nesting habitat. Removal can be done from mid-September through to mid-February. Further, this blackberry should not be confused with our native trailing blackberry which grows as a meandering vine in sunny sites.

Valdes Island has one of the driest climates in BC and supports the Coastal Douglas-fir moist maritime (CDFmm) ecosystem. The CDFmm ecosystem includes the southern Gulf Islands and the thin lower elevation portion of the southeast side of Vancouver Island extending from Victoria to Courtney. The CDFmm is also among the most endangered ecosystems in BC.



Areas of limited rainfall pose harsher growing conditions than areas where water is not as limited. Invasive plants, because of their wider range of tolerance, are thus more problematic in dry climatic regions. A good example of this is Scotch Broom (*Cytisus scoparius*). In the CDFmm, this plant can overtake openings and prevent natural seeding of native trees, shrubs and herbs, but in much wetter areas like Clayoquot Sound the native vegetation out-competes it.

Scotch Broom is of special concern on Valdes for two reasons. It easily out-competes native plants forming dense patches and as the plant grows, the inner stems die back, providing a highly flammable fuel. To eradicate it, it is best to wait until the plant is close to full bloom, then cut or pull the plant out by its roots and burn the plants in controlled piles. But any time you come across a broom plant on Valdes, simply cutting it down would be a good idea!

One of the more serious alien invasive plants on Valdes is English Ivy (*Hedera helix*). This plant is well liked for its ability to completely cover things (e.g. buildings). Unfortunately, it is perfectly suited to smother native plants and form a thick monoculture. It is spread through cuttings, and by birds eating and dispersing the berries. Interestingly, the plant only fruits when it starts to grow vertically, e.g. up a building or up a tree!



English Ivy, *Hedera helix*

English Ivy is difficult to kill; even herbicides are ineffective when applied to its waxy exterior. The most effective way to eradicate English Ivy is to pull it out by the roots, or when this is not possible, to cut the stems and paint the open cut with herbicide.

The holly tree (*Ilex*) is well liked for its aesthetically pleasing waxy green leaves and bright red berries. While these trees are slow growing, they are very steady growers. They spread rapidly by birds eating and dispersing the seed. While these trees seem somewhat innocuous, they eventually can outcompete native forest plants and form large monoculture stands as seen now in areas of Denman Island. These trees are easy to kill individually by cutting them



Holly tree, *Ilex*

down. What is difficult is ensuring diligence in identifying and cutting down the multitude of trees that have already started to grow on Valdes from wide seed dispersal.

The Top Five -- Invasive plants on Valdes (Lyackson) Island ...Why should You and I care?



Yellow Flag Iris flower *Iris pseudacorus* and root system

Yellow Flag Iris (*Iris pseudacorus*) is a serious wetland (and lake) invader, and is found on Valdes. This plant has a beautiful yellow flower, but produces a massive root system, that once established can completely overwhelm a wetland ecosystem. To make things worse, all parts of this plant are poisonous (it should not be handled without gloves); as a result there are few native species that can use this plant.

Wetlands in dry ecosystems such as those of Valdes Island tend to be relatively rare, so ensuring this plant does not spread is extremely important.



Yellow Flag Iris, *Iris pseudacorus*

Yellow Flag Iris spreads through roots and through seed dispersal via both air and water. Yellow flag-iris is widely sold in nurseries and on the Internet for wet areas and well-mulched soil. Plants are identifiable by showy yellow flowers with 3 sepals that curve backward and 3 petals pointing upwards. These plants can reach 1.5 metres in height.

For small populations the best method of control is to dig up the plant and its roots. Repeatedly cutting the flowering stem (wear gloves) to prevent seed dispersal is also a good idea.

Scotch Thistle (*Onopordum acanthium*) is native to Europe and Asia. It was introduced to North America in the late 19th century as an ornamental. Initially this plant had several productive uses. For example, it was used historically to treat cancers and ulcers and to slow discharge from mucous membranes. Its thick white hairs were used to stuff pillows and the oil from its seed was used for cooking. Scotch Thistle is no longer used for these purposes and has become a



Scotch Thistle, *Onopordum acanthium*

widespread weed impacting deer range areas and wetlands growing 8 to 12 feet tall.

Scotch Thistle reproduces by seed and can germinate at any time during the year. It does not produce seed in its first year. Mechanical methods for control of this plant can be effective, and it is susceptible to a wide range of herbicides.



Scotch Thistle, *Onopordum acanthium*

Because Scotch Thistle does not seed in the first year, quick identification and pulling of the first year plant helps to eliminate future seed production. Repeated cutting of mature plants (especially while in flower) can also be effective if the cut is down into the rooting area.

Unfortunately there are many more plants along with these five, that are of concern on Valdes, such as toxic Tansy Ragwort (*Senecio jacobaeae*) and Common Burdock (*Arctium minus*) both abundant along the island's roadways; Hairy Cat's Ear (*Hypochaeris radicata*) in the precious seaside flower meadows, and both the small and large periwinkle (*Vinca*) which are common in areas of past human habitation. There are also many species that are not yet on the island that we need to have on our radar.

Some good news though, there are plans to have a "plant pull" focusing on the Hairy Cat's Ear as a part of this year's BioBlitz (June 4 and 5).



Hairy Cat's Ear, *Hypochaeris radicata*

