



Oystercatcher

Salt Spring Trail and Nature Club
Newsletter
Summer, 2018



A pair of purple martins on one of the Salt Spring Island boxes. See story inside. Photo by David Denning.

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President's Point of View

Sue Lehmann

It's exciting to see so many people getting out to club activities. Tuesday Hikes, Walks and Rambles are well attended. Our speaker series continues to showcase informative talks on a wide range of interesting topics. The early morning birding group rises at the crack of dawn to track down common and elusive birds. Who knew there were so many enthusiastic members willing to get up with the sun! The Trail Building Day was a spectacular success. Trails don't build themselves and it was inspiring to see how quickly the new trail section took shape with so many helping hands.

We weren't able to include a Broom Pull this year, replacing it with the Trail Day. Participation has declined in the past few years, until only a handful of people came to last year's Broom Pull. I know this was disappointing to some, as the island is losing the battle to control broom and gorse. As I write this article, the bright yellow flowers are very evident all over the island.

This newsletter is published by the Salt Spring Trail and Nature Club, PO Box 203, Ganges PO,
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For information on the Board of Directors and weekly outings, please see our website: www.saltspringtnc.ca

Calendar of Events

Thursday, June 14, 2018

Geology of Iceland

Come learn about the Amazing Geology of Iceland from 7-9 p.m. at the Salt Spring Library. Steve Earle is a Geologist with a PhD in Geochemistry, now living on Gabriola Island. After 12 years in the mining industry, he has began teaching at Vancouver Island University in Nanaimo and at Thompson Rivers University in Kamloops in 1992. The talk is open to the public.

Saturday, June 9, 2018

SSI Conservancy Annual General Meeting

1:30 p.m., 265 Blackburn Road. Members are welcome to attend the Conservancy's Annual General meeting (AGM). Refreshments will be served, and a visual display of the updated 2018-2020 strategic plan will be posted for members' information. If it's a nice day, a guided walk through the Blackburn Lake Nature Reserve will also be offered.

Tuesday, June 19, 2018

Strawberry Festival

The hiking season ends with the Strawberry Festival in Ruckle Park. This year's event is being organized by the Hikers. Meet at noon in the lower picnic area with your packed lunch to enjoy a scrumptious dessert of strawberries and ice cream. Remember to bring a dish and spoon! Short walks will be scheduled before lunch.

Sunday, June 24, 2018

Build a Labrynth

Tisha Boulter and other volunteers with the Salt Spring Island Conservancy will create a labyrinth based on ancient labyrinth patterns. Building a labyrinth is low impact and easy for many ages and abilities. It should take 60 to 90 minutes to create depending on the number of hands. Contact Coreen at coreen@saltspringconservancy.ca if you're interested.

Saturday June 30, 2018

Art & Nature Fest: An Afternoon of Performance, Picnic & Play

3:00 p.m. - 7:00 p.m. Further information to come from Salt Spring Island Conservancy

Tuesday, September 11, 2018

Blackberry Festival

The 2018-2019 hiking season begins with the Blackberry Festival at Ruckle Park. Meet at noon in the Group Campground. Bring your lunch and a favourite blackberry goodie to share. Don't forget a bowl and a spoon. Short walks will be scheduled before lunch.

However, the Trail Day was very well attended, suggesting that members are enthusiastic about exploring new trails. There are several other trails we can develop, but must be cautious about overloading our trail building team. Watch your emails for other trail building days or contact our Trail Coordinator for upcoming activities.

The last activity before the club takes a break from scheduled activities for the summer is the Strawberry Festival in Ruckle Park on June 19. The setting, the lively conversations, and the yummy strawberries and ice cream make this a popular activity. Hope to see you there.

I would like to close by offering my sincerest congratulations to Peter McAllister on behalf of the Club, its executive, and myself for winning the 2018 Ian McTaggart-Cowan Outstanding Naturalist Award presented to him by B.C. Nature on May 12, 2018.

Nomination for the 2018 Ian McTaggart-Cowan Outstanding Naturalist Award - Peter B. McAllister *Extract from Document prepared by Kathleen Maser and Kees Visser*

The Salt Spring Trail and Nature Club considers Peter McAllister to be an excellent nomination for the Ian McTaggart-Cowan Outstanding Naturalist Award.

Peter grew up in New York but was drawn to British Columbia's wildlife and wild places, moving here in 1963. He became fascinated with birds at an early age and became a very young member of the Audubon Society. When developers came to tear down the forests around his family home, he remembers trying to protect the trees that he loved—hugging one favourite birch—and the experience left him with a lifelong desire to protect nature and the environment.

He has lived in Vancouver, Langley, Victoria, Vernon, Hat Creek and more recently he and his wife Bernadette moved to Salt Spring Island. In 1963, McAllister headed to California to attend graduate school in marine biology. While on route, his father suggested he get a job and offered him one at a McAllister subsidiary, Island Tug and Barge in Victoria. The idea appealed to him and he headed north. He never forgot the tugboats and barges coming into the Victoria Harbour with massive logs, often five to six feet in diameter, some of them from the central coast around Rivers Inlet. These images were the catalyst that later sent him north up the coast to begin the Great Bear Rainforest campaign.

After working for Island Tug and Barge, McAllister bought a farm (Wood Duck Farms) in the Fraser Valley and worked as a stockbroker for Merrill Lynch. He entered politics to preserve the rural character of Langley Municipality and was instrumental in protecting the Fort Langley flood plain with an injunction against a corporation affiliated with his family, McAllister Bros.

A lifelong naturalist and activist, he is also a gifted photographer and filmmaker. His award winning documentary “Legacy” can be credited with bringing international attention to the destructive clear cutting practices on Vancouver Island and the Great Bear. In 1986 while moving back to Victoria, he joined the campaign to save South Moresby, Haida Gwaii, 1986 - 1987, from logging. As former chair of the Sierra Club of BC, Peter was active in the fight to protect the Clayoquot Sound in 1988, the Kyuquot region, and started the Carmanah campaign.

Perhaps most importantly he initiated and spearheaded the campaign to protect old growth rainforest in what is now known, and named by him, as the Great Bear Rainforest. Following these tumultuous years, recognized as the “War in the Woods”, he led the way to inaugurating the Raincoast Conservation Society in 1993 as the Great Bear campaign flagship. He helped establish the Raincoast Conservation foundation two years later as its research arm.

He has been active over the years with the Land Conservancy, Nature Conservancy of Canada, and Ducks Unlimited. He became friends and worked with environmentalists and conservationists in Europe and the US.

He now lives on Salt Spring Island and is involved in a myriad of projects. Among them, are his efforts to protect Owl Island, a treasure of the Salish Sea. Over a three-year period and after seeking collaboration with just about every private and provincial agency involved with conservation responsibilities his group has got the federal government to realize the extraordinary values, both ecological and cultural of this masterpiece of nature. Owl Island is as yet unsecured.

His Purple Martin Recovery project, supported by the Salt Spring Trail and Nature Club, has seen the return, from a few to over a hundred martins to the island in just a two year period. Monitoring the 98 boxes and 25 sites requires hours of his time. He is also a Salt Spring Ocean Steward, using his boat for the martins and projects like eelgrass and kelp bed mapping. He is currently contributing to the written history of the Sierra



Peter McAllister receiving Ian McTaggart-Cowan Outstanding Naturalist Award for 2018. Peter is flanked by Margaret Cuthbert, B.C. Nature Awards Chair and Alan Burger BC Nature President. Photo by Ron Long.

club, which includes meetings with members, and gathering together and submitting a lot of archival material to the University of Victoria.

As a BC Nature member, he contributes to the Conservation Committee, and is engaged in the protection of the Mountain Caribou and limiting the wolf kill in BC.

As you can see Peter remains active in almost every field of conservation. No doubt, we are omitting some of his accomplishments, but his indefatigable effort for Conservation in BC over many decades makes him a most worthy recipient of the Ian McTaggart-Cowan Outstanding Naturalist award.



Photos of the work crew on Trail Day, all looking very industrious. Photos by Lynn Thompson.



New Trail is in red.

2018 - Trail Day

Gary Quiring, Trail Coordinator

Wow what a turn out it was! Our 2018 Trails day, attended by 24 SSTNC members and two BC Parks rangers, resulted in the creation of a new section of trail on the south side Burgoyne Bay. The public and the SSTNC have been exploring the south side of Burgoyne bay for decades and it's fantastic to finally brush out, and clearly sign these trails.

Our club has been successfully working with BC Parks to map and sign all of our BC Parks trails and this was a major step towards completing the work that started on Mt. Erskine and Mt. Maxwell in the last few years. This new sec-

tion of trail is important for a few reasons; Many of our trails on Salt Spring have been created organically and without planning and many have been built in haste without proper consideration for erosion, heavy traffic, or managing the water we get with heavy winter rains.

By carefully planning a trail, most of these issues can be reduced or eliminated creating a long lasting lower impact experience. It also saves a lot of work going back after the fact to repair a poorly built trail. BC Parks requested this new section of trail to avoid private lands and sensitive areas. It is a pleasure to see our club being proactive in this way.

The work in Burgoyne is not totally finished, however. You will see new maps and signage there in the near future as well as more opportunities to volunteer growing our trail network.

Thanks again to everyone who came out and especially Herb Otto, Charles Khan, Nigel Denyer and the many Staff at BC Parks for making this possible.

A Winter's Hike

Lassie Dodds

Joy Holland, daughter of Gerry and Loes Holland, submitted a story, written by Lassie Dodds of a winter hike in 1976. All three hikers involved were among the founding members of the Salt Spring Trail and Nature Club. This story, reproduced in its original form, complete with spelling errors and quaint capitalization, reveals how far back hiking and exploring were a major activity on the island. The hike actually predates the founding of the Club but we can readily see how the sense of exploration and joy that this letter illuminates helped inspire it's founding. I wonder if any of our readers can piece together enough information to duplicate the hike today. Editor.

Jan 22 76

Today was Foggy and Dripping but still we had a very lovely Hike. We were unable to go last week Due to my Goats Kidding and Loes and Gerry [Holland] had a furnace man coming, So this week we had to Hike. We had Promised ourselves we would continue to investigate our last Hikes area, and also try to find an easier Route to it. We set off along the Road to Maxwell Lake in thick Fog and turned off up a Road By the gate first Past the Hill of Big Stones, we followed this till we came to three Branches in the Road. The first one felt right so we took it. The Fog was thick, and trees that were quite close were Dim and Mysterious, but our Road was clear and going in the right Direction and even if we couldn't see very far we thought we could see enough to know when we got to our open Parklike goal. For a short Distance our Rd got narrow and Bushy with just a sheep track winding its way through various contours of the rocks, then soon we knew we were in a Part of our open area But Just where we couldn't tell as Due to the Fog the visibility was very limited. There was a small Breeze and Gerry could smell the sea in it. Loes took the lead with very little steering from the Back. She got into a very nice sheep Path and soon we could all make out that we were on the Brink of a sharp drop as we were looking at the tops of trees. This we felt sure was the slope dropping down to Sansum narrows. Loes followed her sheep trail till it started to go off Down the slope so then Gerry and I steered hard to get Loes off her trail and up onto some Rocky outcroppings that we could see very Dimly in the Fog. (We needn't have worried she was going there anyway). From time to time we had made some arrows on our trail to guide us Home and now we started to put them fairley close together. We went on a bit farther then we decided we would Eat and then find our way Back. We found a very nice log in a sheltered spot and sat on while we ate, there were two slender Branches over our heads that Dripped down on us but we didn't care. The we noticed a Break in the Clouds and suddnly the Fog thinned out, so we worked our way over to the Edge of the slope and sure enough we could see right Down the slope and accross the water in a Bay with some Buildings, Mt Maxwell was over where we thought it should be, a Bit dim in Places due to wisps of Fog But easily Recognizable, only we thought we were much further along than we had been last time. Then Back we headed for our trail, only there were lots of Trails Visible now it was clear and the question was, which one is ours. We were never in Trouble as we could see the Lake exactly where we had thought it should be so even if the Fog had settled in again we could have Kept on going and come out on the Lake Road But we wanted to follow our trial Back and establish it a bit more, so we fanned out and hunted arrows and suddenly Alt here is an arrow and we were on our way



Loes Holland and Lassie Dodds. Picture provided by Joy Holland.

going and would find ourselves on the wrong trail, then we had to Hunt for arrows, and this was the Pattern of our Return till we came to an old Drum, and there was our logging Road and were close to the intersection of the three Roads. We were soon Back on the Rd again, and as it was Early we decided we would Follow the second Road out as I felt sure it would take us up to the Pylon, overlooking Samsom narrows. It did, While we stood there admiring the Veiw which is very nice. We noticed what looks as though it might be another mine on the other side of a Ravine . (it drew Gerry like a magnet). There was a lovely Hilltop above so we All want to investigate sometime. On the way Back we went up a side Road to another set of Pylons and there seemed to be a very Easy way over to the Hill, so next time maybe? We were soon down the Lake Rd and out to the car and it had Been Another Very lively hike.

BC Nature Conference and AGM at UBC

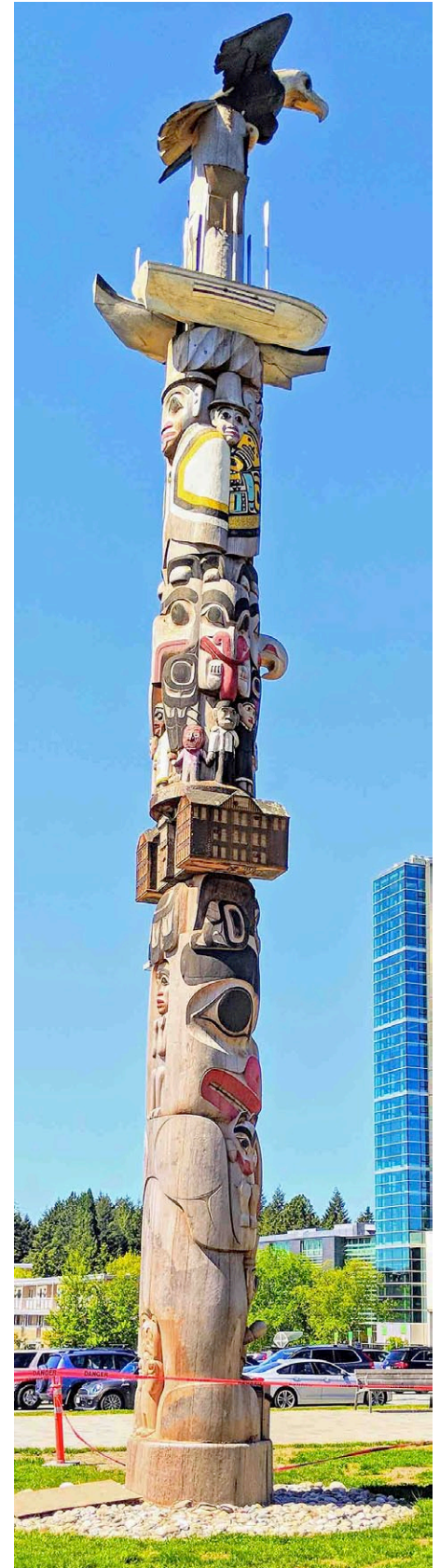
Kathleen Maser; BC Nature Liaison

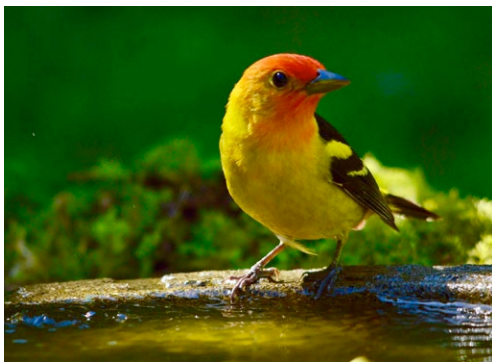
This was a brilliant choice of location for a conference, and celebration of Nature Vancouver's 100th anniversary. All in a small radius were beautiful gardens and wild spaces for natural history events, and meeting rooms and lecture halls in the architecturally amazing Forest Sciences building.

Each day began with early morning birding, of course, and we congregated at the base of the newly erected Reconciliation Pole to fan out to the 'farm' or the botanical garden where for some, birding took second place to the plants – such as beautiful ginkgo trees and even a young golden spruce, an offspring of the infamous spruce of Haida Gwaii. The American goldfinch was definitely the most common bird seen, and a lucky few spotted a western tanager.

Side view of Reconciliation Pole at UBC. This remarkable reconciliation pole made from an 800 year old ts'uu, or red cedar from Haida Gwaii was installed, following traditional Haida protocols on April 1, 2017. The Haida master carver, James Hart, his son, Gwaliga and numerous other Haida carvers address both the past, present and future of Canada with regard to the effects of the Indian residential school system. The copper nails covering areas of the pole are in remembrance of the many children who died at Canada's Indian Residential schools – each nail commemorates one child. The pole, alone is worth a visit to the campus. Photo by Genevieve Singleton.

again (I found a Path with a couple of arrows and in the excitement of the moment quite forgot we had made them pointing to follow them out and I would have led everyone Back to our eating Place But Bothe Loes & Gerry steered me off the Right Way.) The Fog was quite thin and Wispy now and there were lots of interesting Views so we didn't watch where we were





Western tanager. Photo by Peter McAllister.

The keynote speaker, Rob Butler, a biologist, conservationist and author addressed us in a light-hearted manner on ‘The role of Naturalists in Reconnecting with Nature’. It was a convincing invitation for us all to continue this important work. He is deeply involved in Vancouver’s hosting of the International Ornithological Conference – IOC, this August. They are planning so many events to engage the general public, not the least of which will be a parade consisting of over 200 species of birds, created from different art forms.

John Innes, dean of the Faculty of Forestry, presented a somewhat disturbing picture describing the lack of planning within the provincial government vis a vis forests and climate change. Continued planting of homogeneous species and the replanting of species vulnerable to insect infestations such as the pine and spruce beetles are but two of the issues. Others gave many excellent presentations over the course of three days, and a delightful, nearly theatrical speaker ended the conference talking about bees. We learned that the Nootka rose, currently in bloom all over Salt Spring, is one of the most important plants for bees.

At the directors meeting Alan Burger, BC Nature’s President addressed a number of issues.

- How to increase public engagement is a goal that the club is undertaking with help from Matt Price of Nature Canada

- Alan has had considerable participation in the Protected Places Initiative (promoting Canada’s 2010 Aichi Biodiversity Conference commitment to protect 17% of terrestrial and fresh water area and 10% of coastal and marine areas by 2020). Nature Canada works with other naturalists groups across Canada to explore ways to push the federal and provincial governments to meet these Aichi Targets. The protected terrestrial areas, already at about 15% in BC are heavily skewed to the least biologically productive and species-rich areas, in other words a lot of high elevation habitat. Consequently BC Nature’s push has focused on the biogeoclimatic zones with high biodiversity most in need of protection, these being lowland Douglas Fir and grassland ecosystems.

- Jointly with Nature Canada, BC Nature has just heard that they will receive \$30,000 per year for two years from the Sitka Foundation to promote protection of the Fraser River Estuary and Creston Valley Wetlands.

- Alan said that Heather Neville who has held the Camp Coordinator position for the past 2 years has done sterling work in organizing 5 camps a year. A new candidate is now needed for her position. By the way, the Harrison Eagle Camp is still accepting registrations.

A moment of celebration at both meetings was the recent acquisition of 6 new parcels of land for provincial parks. Genevieve Singleton, a passionate speaker was asked to fill us in on one of these areas, the 144 hectares known as Eagle heights near the Koksilah River. This is the most significant acquisition as the other 5 protected parcels of land were less than 20 hectares in size. Genevieve Singleton was emphatic in citing her club’s close connections to the Cowichan Tribe that slowly created a relationship of respect and caring, over ten years in the making. She said this was instrumental in creating the necessary partnership for the establishment of a park on this land.

At the AGM, the Bulkley Valley Naturalists submitted one resolution: “Banning the Use of Lead in Ammunition and Fishing Gear” A lively and interesting discussion ensued, eventually moving forward to a general agreement, and the motion was passed.

Intertidal Beach Walk

Yvonne Gibbon

On May 15th, Dave Secord, an intertidal ecologist, and his wife Amy Adams led the walkers and hikers on an intertidal ramble along the beach at Fulford Harbour more than halfway to Isabella Point. This was one of the best days for our adventure as we encountered one of the lowest tides of the year. We were asked to look for

any treasures of the sea and shore and share our findings with the group, and what treasures we did find! Someone found a large segmented worm (*Sabellid nereid*), common in the intertidal zone. These worms provide food for thousands of shore birds as they migrate. It was interesting to see it break in half when picked up. It must have thought that Dave was future lunch and bit his hand!

I was delighted to see several purple stars (*Piaster ochraceus*), that have been declining in past few years due to Sea Star Wasting Disease. The dunflower star (*Pycnopodia helianthoides*) has also declined in great numbers. I last spotted one in the water at Fernwood Beach about five years ago. Someone picked up a beautiful bubblegum pink coloured star (*Bisaster brevispinus*). Another person found a small, greyish coloured star (*Evasterias troschelii*) with delicate shaped arms that I had never seen before.



David Secord addressing the group.
Photo by Amy Adams.



Bubble gum pink sea star. Photo by David Secord



Purple sea star. Photo by David Secord

Snails called whelks (*Nucella lamellosa*) were clinging to the rocks in abundance and we saw large clusters of their egg sacks nestled in around them. These carnivores use their “drill” to bore into shells to attack their prey. After observing the snails, we put them back exactly where we found them attached to the rocks so as not to disturb them or their habitat.

We had a lesson in learning the difference between kelp, seaweed, and sea grass, and were told that seaweed is not really a plant and does not produce seeds nor does it have a typical root system. We saw an abundance of green, red, and brown seaweed and kelp, some of which had baby barnacles growing on it.

We saw various types of clams such as butter clams (*Saxidomus gigantea*), cockles (*Clinocardium nuttallii*), Pacific littlenecks (*Protothaca stamina*) and purple varnish clams (*Nuttallia obscurata*) with their pretty bluish/purple interior. The varnish clams arrived at our beaches in the 1990’s, probably brought here from the ballast water of ships arriving from Japan and other areas. They are now considered to be invasive as they have spread to beaches all along the Salish Sea.

Another exciting find was a marine mollusc called a chiton, having a walnut shell shaped, segmented shell with eight protective plates on it. I found a small



Kelp with baby barnacles growing on it. Photo by Yvonne Gibbon.



Butter clams. Photo by Yvonne Gibbon.



Cockle. Photo by Yvonne Gibbon.



Purple varnish clam. Photo by Yvonne Gibbon.



Red rock crab. Photo by Yvonne Gibbon.

hairy chiton on Price Beach last summer in the shade of a rock as most species are nocturnal and avoid sunlight. Dave has seen the giant Pacific chiton (*Cryptochiton stelleri*) around Salt Spring which is as large as a football. We saw white, orange and red crabs and learned that we can distinguish a Dungeness crab by the white tipped claws.

Several bright orange sea cucumbers (*Cucumaria miniata*) were spotted along the way. They are soft-bodied echinoderms with ten feeding tentacles at the feeding end. They usually will be found under rocks or under soft mud. Their main predators are sea stars.



Sea cucumber. Photo by David Secord.

Among our finds was an beautiful anemone named *Anthopleura elegantissima*. These creatures have a single opening that acts as both a mouth and anus. Their tentacles are usually green with pink tips and the often seen in colonies.

We stopped for lunch at the “clam garden” where First Nations people had erected a type of rock wall in the water to promote ideal conditions for clam production. There is another clam garden on Russell Island and in other areas along our coast. A scientific project is underway to protect and rebuild the clam gardens on Salt Spring and Russell Island and to determine when these gardens were actually built.

As we were eating our lunch at the clam garden, the clams were spouting water several feet into the air with their syphons. They do this to get rid of waste material and to squirt out sperm or eggs for reproduction.

I have been rambling on Salt Spring beaches for many years and have never seen such an abundance of sea creatures in one place at one time! We are so blessed to live in this paradise with so many species of marine life, some of which is only found in the Salish Sea. Many thanks to Dave and Amy for leading us on this interesting and informative walk.

Tales from Early Morning Birding with Peter McAllister

Kathleen Maser, BC Nature Liaison



A something or other. Photo by Peter McAllister.

From a frosty cold start in April to a near tropical finish at the end of May, we began the early morning birding with 16 keen participants, dipped up and down in numbers in the middle weeks, even to a lone participant but finished with 16 happy souls, just glad to be out there.

To our amazement and excitement, two Californian ladies joined us one morning in May, having noticed the event in the Driftwood! Here are some of my most memorable moments of our early morning jaunts to Burgoyne Bay.

I think particularly of one morning walking quietly in that beautiful valley listening intently for bird songs



A bushtit in there somewhere. Photo by Kate Reed

us, a joy to hear and a real good looker.

When I saw the “common yellowthroat” singing in the open I learned at that moment that even though he is a warbler, he was NOT the “yellow-throated warbler” that lives in the Eastern US. Getting the name right is a challenge!

The Bewick’s wren like so many of our Burgoyne Bay spring migrants is easy to hear but hard to find. He seemed to pop up and serenade us just when all others were quiet. The savannah sparrow – so ubiquitous in the fields all through our outings, but frustratingly hard for me to hear. Surely not another sign of aging!



*Common yellowthroat.
Photo by Peter McAllister*

termelody, a special, rare treat from this ‘the Pavarotti’ of songsters. Note: This grosbeak is one of the few birds that can safely eat the poisonous monarch butterfly! Their nests are so thinly constructed that eggs can be seen through the bottom. It is thought that this may provide ventilation helping to keep them cool.

I enjoyed the walk as a meditation. Listening, in deep silence with no expectations - a walking meditation, flavoured by the first tender rays of sunlight.

Kate Reed’s discovery of a bushtit’s nest – a magnificent structure, shaped like a sock and many times the size of this pint-sized bird was truly a wonder.

Thanks, Peter.

in the chilly air with frost still on the edges of the fields. I believe it was a hidden Townsend’s warbler that sang in the bushes to announce the appearance of the sun above the hill and made me forget my cold, wet feet.

I was captivated by the antics of a belligerent song sparrow pestering a common yellowthroat – yes, that bird with a mask! The sparrow kept pushing this usually secretive and difficult to view bird out into the open, as though a behind the scenes stage manager, was barking out, “Back onto centre stage with you! Take another bow.” Thrilling for



Bewick’s wren



Black-headed grosbeak. Photo by Peter McAllister.

Sea Stars Diminish, But Purple Martins Thrive: Report on SSI Citizen Science Projects

David Denning

Partner Projects of the Salt Spring Trail and Nature Club and the Salt Spring Ocean Stewards Society

Virtually all seashore enthusiasts know that in the last few years a significant plague has attacked and decimated populations of sea stars along the entire West Coast of North America. The effects of this sea star wasting disease first came to notice in 2013, but the disease really took hold in 2014-2015 when a mass mortality of our common purple sea star (*Pisaster ochraceus*) completely eliminated some populations and reduced most others to a fraction of the pre-disease level. Our citizen science group began a survey of *P. ochraceus* in the early spring of 2014 on a 2 km island shoreline. Our first count revealed 3,783 sea stars, but the same survey protocols on this island shore in late summer 2015 revealed only 173 individuals remaining – a loss of 95%!

Sea star wasting disease has attacked at least 19 different sea star species and 2 sea urchin species with varying levels of mortality. It hit the giant sunflower star and the giant short-spined star very hard, and scientists wonder if these species can ever recover.

Our common purple (or ochre) intertidal star, *P. ochraceus*, might possibly be recovering from the disease, but this is difficult to tell. For one thing, adult sea stars can move into new habitats over time. Most, if not all, of the large (greater than 10 cm diameter) sea stars now seen along our shores or on dock surfaces are actually survivors from the plague. We know this because it takes at least 4 years for a sea star to grow to the 10 cm diameter size. To learn whether sea stars are recovering, we need to look for juvenile sea stars, born (or in this case – settled as juveniles after a period of time developing in the plankton as larvae) after the plague ‘passed through’.

Our citizen science group on Salt Spring Island has undertaken a study of juvenile sea star occurrence and abundance to learn the extent that local sea star populations are recovering. Our first step was to train 15 volunteer observers in how to search for and recognize juveniles of all possible intertidal species. We learned the kinds of habitats they are likely to occupy, and how to search these habitats with absolute minimal disturbance.

Once trained in noninvasive data collecting, each researcher, or couple, worked at extreme low tides to collect data at various sites around the island. At each searched habitat, they monitored, duration of effort, and number of each species of juveniles found. A second part of the survey was to monitor adult sea stars (greater than 10 cm diameter) and to observe whether any of the adults showed signs of sea star wasting disease (white lesions on the body, arms falling off, etc.) In our first spring/summer of survey work (extreme low tides occur in the daylight only a few days each month, April through August) revealed that most shore areas on our island are not experiencing significant sea star recovery. We are hopeful that results on one stretch of shore – over 60 juveniles located in a 2-hour search – indicate a possible acceleration of recovery.



Juvenile Pisasters. Photo by David Denning.

Salt Spring Island Freshwater Catalogue Project John A. Millson

The Salt Spring Island Water Preservation Society is currently developing a “freshwater catalogue”. They are launching a project to gather data to help us manage our groundwater resources and to raise community awareness and ownership of the island's freshwater resources. The Catalogue work will provide baseline data for refining surface and groundwater recharge quantification models, and support water habitat conservation/protection activities.

The catalogue will comprise information on the creeks, ponds, lakes, and other water bodies. Information on their location, extent, seasonality, vegetation, spring lines, and geographic features will be collected along with other data to be determined. The project is actively looking for volunteers and will provide training where necessary. Further information for those interested in helping the FWC project is available here:

<https://files.acrobat.com/a/preview/8028adc1-dd1c-48f7-a402-8f4bcb9a1414> .



Purple martins. Photo by David Denning.

Our group will be expanded this May with further training sessions and increased numbers of observers out on the beach at low tide to monitor juvenile sea stars.

While the fate of sea stars along our shores is hidden from observation by the ocean tides and the obscurity of juvenile sea star habits, there is no question that another shoreline icon of the region is coming back with a melodious vengeance! Thanks to the dedicated work of Peter McAllister, Tony MacLeod, and a team of purple martin enthusiasts, this iconic bird is making a real comeback along the shores of Salt Spring. Since beginning a purple martin house building and erection program 2 years ago, McAllister and his team have built and placed more than 90 nesting boxes at 16 different sites along the ocean shores, and have recently erected boxes on our largest lake, St. Mary's Lake.

So far, the occupancy of these new purple martin homes has been near 100%. The wonderful songs of the birds, and their active foraging and feeding patterns have inspired many shoreline residents to join in the recovery project, and McAllister and his team are finding it a challenge to keep up with the demand for new boxes. In the next phases of the project, McAllister plans to continue placing boxes, and develop a program of monitoring nests for parasites and keeping them clean to lessen parasite impact.



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