Lasqueti Island Nature Conservancy

linking people to nature on Lasqueti and surrounding islands

Issue #11, Spring 2017

Membership $5.00 annually
Donations to support our work are tax deductible
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Christmas Bird Count 2016

by Sheila Ray

We had our share of bad weather this winter, but December 30th turned out to be a lovely day to count birds. It was sunny and the temperature was between 4 and 6 degrees. Unfortunately there was a stiff northwest wind blowing, which meant our usual teams that count by boat couldn't go out far from sheltered water. As a result no alcids, or shorebirds, other than black oystercatchers were reported.

Thirty-five people counted this year and recorded 60 species, considered an average year. There were few "high counts" of any species, but also only a few of the usual species were not seen. There were no swans this year, although some have been seen since. Two Eurasian Wigeons were seen as well as 51 of the more common American Wigeons. Marti saw 6 Virginia Rails, which is unusual and David and Andrew spotted an American Dipper. This is a rare bird for Lasqueti and has only been seen once before on a Christmas Bird count. They frequent fast flowing rivers and can often be seen along the Englishman or Qualicum River, but this one was on a beach. No one saw a Hairy Woodpecker, a Bewicks Wren or a Hermit Thrush, but there were 6 hawks, lots of little Pacific Wrens and 12 stalwart Anna's Hummingbirds.

Our group was not as diligent as we have been in past years. We found a sun-warmed deck to sit on and spent a long time watching at least 3 Humpback Whales feeding between Lasqueti and Parksville.

This year, the Audubon Christmas Bird Count mobilized over 72,000 volunteer bird counters in more than 2,500 locations across the Western Hemisphere. The Audubon Christmas Bird Count utilizes the power of volunteers to track the health of bird populations at a scale that scientists could never accomplish alone. Data compiled on Lasqueti will record every individual bird and bird species seen in a specified area, contributing to a vast citizen science network that continues a tradition stretching back more than 100 years.

Chris Whiting helping LINC clean out the Merganser boxes at the Osland Reserve, as part of LINC's annual covenant monitoring and management role

Another way to contribute as a citizen scientist is through www.ebird.org. I would really encourage other birders on Lasqueti to record their birding lists on this web site. It's easy to do and not only keeps track of the birds you see, but allows you to see what birds others are seeing and what is likely to be around. Go to the website and check it out. You may become addicted to it, like I have.

Lasqueti Island Nature Conservancy is holding its Annual General Meeting, April 22 (yes Earth Day!) at the hall.
10:30 - meeting start
noon - hike (to be announced)

Please donate to LINC all year. We are a volunteer charitable organization.
We depend solely on donations to support our conservation and educational work.

Forage Fish Matters: Our community coming together for forage fish

by Connie Haist

Several years ago, marine scientist Ramona de Graaf came to Lasqueti Island to hold a weekend workshop and introduce Lasquetians to a fascinating group of little fish called forage fish. These fish form the backbone of the marine food web in the Salish Sea, feeding on plankton and being eaten in turn by predatory fish, birds and mammals. Since that first workshop, the species we have been studying here on Lasqueti are Surf smelt and Pacific sand lance. Both species are drawn to our undisturbed, coarse sand and gravel shores. With magnetic attraction, they return here every year from the beginning of November through to the end of March to spawn, leaving their embryos buried in the surface sand and gravel just below the high tide mark.

Ramona, with her contagious enthusiasm for her field of study, easily convinced many of us to join her as volunteers for beach sampling expeditions and LIFFT was born! Our Lasqueti Island Forage Fish Team (LIFFT) included Jodi A., Richard B., Gwen B., Barb B., Valeria De R., Brigitte D., Charline D., Andrew F., Marie-Ange F., Ian G., Bruce G., Connie H., Sheila H., Katrina H., Peter J., Susan M., Brian P., Sheila R., Suzie R., Jessica S., Paul St. P., Wendy S., Kathy S., Anna S., Trudi S., Sue W., and Betsy W.

More workshops followed and we learned how to set out a transect line, operate an Egyptian water level, observe and record essential data, and collect and preserve beach sediment samples. Soon, we had organized ourselves, formed up teams and ordered more sieve kits which Ramona made herself. Using our local knowledge, we brainstormed and chose our 13 beautiful and sometimes remote study beaches. We drove down bone-jarring gravel roads, and walked slippery trails, along boggy lanes and around treacherous headlands to collect our beach samples. Many thanks to those who allowed us to cross their private pieces of paradise to get to those beaches with difficult access. We collected samples every two weeks over the summer and every three weeks throughout the winter for the next 2 years. You may have seen us out alone, in pairs or small groups; wind, rain, sleet, snow or sun, we were out there at low tide, with our sieve kits, data sheets, dedication and optimism! What a team! In 2013, LIFFT was given the Islands' Trust Community Stewardship Award, to acknowledge the exceptional efforts of our group.

Ramona de Graaf training LIFFT on Maple Bay, one of our forage fish beaches.

Thanks to Sue W. for her weekly e-mails, alerting us to when it was possible to collect our samples. We are grateful to Andrew F. for securing and administering a grant from the Pacific Salmon Foundation to help us cover our basic expenses. Many thanks to Marie-Ange F. for examining many of our samples under the microscope, seeking out fertilized embryos. Special kudos to Jodi Ayers and LIFFT friends for making the long trek at low tide over slippery cobbles and around the headlands to Marshall Beach with a pack of heavy equipment to collect beach samples, enabling this very productive forage fish beach to be included. Thanks to Ian G. for safely taking us in his boat, during the winter, to Marshall and other remote beaches. Through a chain of LIFFT members and friends, and thanks to Wendy S. and Susan M., all of our samples and data sheets made their way to Ramona's home in Bamfield. Here, she examined our beach sediments for embryos, looked at sediment grain size and other variables, and compiled our data for analysis.

Over the years, I heard over and over again what a wonderful activity we had committed ourselves to - we just had to go down to the beach, no matter the weather! "Volunteering with LIFFT and learning the research protocol, I strengthened my commitments to the environment and local ecosystem. In the teamwork of gathering field samples, I became acquainted with other environmentalists and discovered beaches I had not visited before. Only after the project was completed and the data published did I become aware of the scope of the research, the importance of surf smelt and Pacific sand lance reproduction in the wider marine environment. Thus, LIFFT clarified my feeling of community on Lasqueti and made me more aware of

my interconnection with sea birds, salmon, humpback and killer whales, and sea lions." Paul St. Pierre

"It's so easy to feel helpless in the face of so much disruption to our ocean environment. Participating in the Lasqueti Island forage fish study helped me feel like I was a little part of the solution. As Connie explained to us, researchers need to understand where these foundation species spawn before they can develop and propose effective protections. And of course, it was just plain fun to play scientist on the beach with such great neighbours. When's our next project?" Jessica Sachs

It has been a privilege and inspiration to work with Ramona.

In 2016, Ramona finished surveying all of our Island beaches. She is now in the process of creating our Lasqueti Island Forage Fish Map. It will highlight the information that was gathered by her and LIFFT over our 5 year study period. We hope to publish it in the summer issue of our LINC newsletter. We especially thank Ramona who, with grace, humour and years of hard work, taught us how to be effective field scientists, processed our samples, analyzed our data and literally put our Lasqueti Island forage fish on the map.

Pacific sand lance are thought to be the most important fish in the N.E. Pacific because of their unique status of being forage for the most number of predators such as: marbled murrelets, scoters, murres, guillemots, cormorants, red-throated loons, rhinoceros auklets, seals, sea lions, whales, rockfish, halibut and salmon.

Numerous fish, seabird, and marine mammal populations are in precipitous decline in British Columbia. Scientists have started to look at the link between forage fish biomass reduction and these declining populations (de Graaf, 2014). Forage fish spawning beaches scattered around Lasqueti Island are particularly sensitive to human disturbance and pollution. We can help the whole Salish Sea marine ecosystem by taking care of our spawning beaches so these little unassuming fish have safe places to lay their eggs. Their future is in our hands.

Contributions to the funding of this project were made by Islands Trust, Pacific Salmon Foundation, Sea Watch Society, our LIFFT volunteers, and Ramona de Graaf. Our heart-felt thank-you to all who made this Forage Fish study possible!For further information, see our LIFFT Forage Fish Brochure, "Forage Fish Matters" in 2016 LINC newsletters or website and "Sharing Our Shorelines" on the Islands Trust website.

Beavers and their Habitat on the Gulf Islands - by Bonnie Olesko -

Many of us have witnessed beavers on our island, either walking slowly to a wet destination, or observing the damage done to trees and flooded land. I became interested in this beguiling creature when a pair moved in last fall. They quickly built a dam at my pond exit and my west field began to shrink, rapidly. The increased water volume was wonderful, my pond had thousands of gallons more water, the crowded willows were being thinned, and there seemed to be more birds and ducks with the increased wetlands. I became concerned when my pond edge crept up twenty feet further with no end in sight. I had a neighbour come and shot the male, leaving the female (I was relieved to learn they will re-mate when necessary) and then, I began to study them more in depth.

Beavers are the largest rodent in North America, weighing up to 60 lbs. One was recorded at 110 lbs.! They are monogamous, have a litter of approx. 3-4 kits per year, in April-July, birthing in their second or third year of life. The kits are born fully furred with open eyes and ready for swimming. They live in colonies of 3-9 beavers: the parents, the teens,(1-3 years old) and the babies. All the members of a colony help with the rearing of the kits. They have two dens, one for drying off (their mudroom) and the second for family life. They've been known to share their dens with muskrats who have fallen on hard times.

Their amazing anatomy includes valves that close off their ears and nostrils, skin flaps that seal off their mouth so they can chew under water, and clear membranes that cover their eyes so they can see and work under water. This seemingly clumsy animal is extremely fast and agile in the water. Their tail not only acts as a powerful rudder but also a balancing tool while working upright, and its loud slap warns its family of danger. The most impressive action

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of these incredible creatures is their ability to improve nutrient cycles in watersheds by creating larger and more lush vegetation in riparian areas. They prune willow, alder and poplar so that it regrows a leafy canopy in spring, offering shade which lowers water temperature, a necessity for young fry and preventing evaporation. Downed larger trees offer food for deer and increase insect growth as they decay. Enlarged wetlands (within limits!) increase migration access for fish, while their dams aerate water and their debris from chewing brings nutrients to the water with rotting sticks and bark.

Amazing revitalization projects are happening in deserts in the U.S and around the world with the introduction of beaver. You have to see it to believe the transformation of deserts to lush valleys in a matter of 1-2 years. I've learned that their obsessive damming can be controlled to a great extent by changing the sound source of the water. A few T-posts driven in a pond where water is flowing will divert the damming to that site, enabling humans to direct the damming as needed. Especially if you're able to run a culvert under the existing dam so that the water still flows, but silently. Many biologists believe that beaver are the single most important species capable of saving our parched and dying earth, especially in the southern regions of the planet. These under-appreciated engineers are invaluable in the protection of our planet. Having said that, harvesting is also recommended where overpopulation can cause starvation. The peace River region in B.C. takes 50% of the B.C. harvest, followed by the Skeena and Cariboo regions. On Vancouver Island we claim only 5% of the harvest. Although beavers are generally a healthy lot, not susceptible to parasite and disease, they can contract a condition called Tularemia, a disease that attacks the liver, spleen, lungs and lymph. It can be transmitted to humans, but not spread human to human. It can be controlled with antibiotics. Cautious handling with rubber gloves and disposal is important.

Some great websites for further study are
"The Beaver Manifesto:In defense of Tenacity"
"Beaver Management Guidelines" Min.of Environment
"The Beaver Whisperer" The Nature of Things

Live silver-haired bat found in south end in winter. For further info on bats on lasqueti see Issue 10 Fall, 2016

Update on Bats

LINC is working with the BC Community Bat Program to monitor and learn about the bats in our area. The following is information from them.

White Nose Syndrome (WNS), a fungal disease responsible for the death of millions of bats in eastern North America, has moved to the west coast and was confirmed in Washington State in 2016. This is very worrisome for the health of bat populations in British Columbia, with near 100% mortality for some species of bats exposed to the fungus. Although devastating for bats, WNS does not affect humans.

The BC Community Bat Program in collaboration with the BC government is requesting the public's help in monitoring the spread of this disease. "We knew this deadly fungus was moving westward across North America" says Mandy Kellner, Coordinator of the BC Community Bat Program, "but we thought we had many years to prepare". Instead, the disease was confirmed near Seattle last March, and we are gearing up to look for it in BC this winter.

The typical first sign of this disease is bats flying during the winter, an unusual sighting at a time of year when bats are hibernating. Another sign of the presence of WNS is the appearance of dead bats as they succumb to the effects of WNS. "We are encouraging the public to report dead bats or any sightings of winter bat activity to the Community Bat Project (CBP) toll-free phone number, website, or email below. Bat carcasses will be submitted for testing for White Nose Syndrome and would provide the earliest indication of the presence of the disease in BC" says Kellner.

If you find a dead bat, report it to the CBP (1-855-922-2287 ext 24 or info@bcbats.ca) as soon as possible for further information. Never touch a dead bat with your bare hands. Please note that if you or your pet has been in direct contact with the bat you will need further information regarding the risk of rabies to you and your pet.

What can you do?

Please report dead bat specimens. If you have a bat box or known roost, please document when you first see bats arrive in spring so we have a better sense of timing for next year. Participate in the Annual Bat Count in June through August, by counting bats at a colony near you.