The Galiano Island Stewardship News

Spring 2011

A newsletter of the Galiano Conservancy Association, where the people of Galiano Island can share ideas, stories and perspectives on stewarding the land.

Not Going the Way of the Dodo

by Patti Pringle

Species are disappearing at an alarming rate and it has not gone unnoticed. From concerned scientists to elected officials to avid hikers and naturalists, people are trying to find out what is happening and how they can help. The first step of the process is identifying species that may be at risk, their habitat and occurrence.

Funding from the Habitat Stewardship Program has enabled the Galiano Conservancy to create a species-at-risk (SAR) program specifically for Galiano Island. With help from qualified SAR biologists and other organizations, a list of 30 species-at-risk that are or could potentially be found on Galiano has been compiled. (See page 12 for the complete SAR list.)

Species at risk may become listed and their status defined both federally and provincially. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is federal and the British Columbia Conversation Data Centre (CDC) is provincial. Definitions from their websites are as follows:

1. COSEWIC

Wildlife species **–** A species, subspecies, variety, or geographically or genetically distinct population of animal, plant or other organism, other than a bacterium or virus, that is wild by nature and it is either native to Canada or has extended its range into Canada without human intervention and has been present in Canada for at least 50 years.

Extinct (X) **–** A wildlife species that no longer exists.

Extirpated (XT) **–** A wildlife species no longer existing in the wild in Canada, but occurring elsewhere.

Endangered (E) **–** A wildlife species facing imminent extirpation or extinction.

Threatened (T) **–** A wildlife species likely to become endangered if limiting factors are not reversed.

Special Concern (SC) **–** A wildlife species that may become a threatened or endangered species because of a combination of biological characteristics and identified threats.

Not At Risk (NAR) **–** A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

Once a species has been listed as at risk (X, XT, E, T, SC) under COSEWIC, the federal government determines whether to list that species under the federal Species at Risk Act.

2. CDC

"In B.C., species and ecological communities are assigned to one of three lists, based on their provincial Conservation Status Rank."

Red-listed species and ecological communities are Extirpated, Endangered, or Threatened in British Columbia.

Blue-listed species and ecological communities are of Special Concern. Elements are of special concern because of characteristics that make them particularly sensitive to human activities or natural events.

Yellow-listed species and ecological communities are secure.

For more information or to report a sighting about species at risk on Galiano Island, contact the Galiano Conservancy at 250-539-2424 or e-mail biologist@galianoconservancy.ca.

References: www.cosewic.gc.ca/eng/sct0/Assessment_process_tbl6_e.cfm, www.env.gov.bc.ca/atrisk/red-blue.html, www.dfo-mpo.gc.ca/species-especes/faq/faq-eng.htm

Has Spring Sprung?

by Maralie Brewer

Although we complain from time to time about the rain, humidity and cold on the West Coast, deep down we know we have it soft. Much of my extended family are prairie dwellers and when they call to whine about bone chilling temperatures and intense snow storms I suddenly regain perspective. To take it one step further, Victoria and the Southern Gulf Islands show signs of spring at least a month before anywhere else on the coast. Already the trees are flushing and the seeds are sprouting! Now that spring is imminent I'd like to invite readers to keep their eyes and ears open for several species at risk on Galiano that make their appearance in early spring.

I'll start with the flower White Meconella because what is more symbolic of spring than a flower? White Meconella, *Meconella oregano*, is a small annual plant with white flowers that belongs to the poppy family. It is a red listed and endangered species that is found on Galiano Island in open, south facing rocky hillsides with thin soil. Its flowering period is between early March and mid April.

White Meconella, *Meconella oregano*

Photo by John Davis

The Oregon Forestsnail, *Allogona townsendiana*, is a red listed and endangered species that has not yet been spotted on Galiano. Its shell is yellow to brown with 5 or 6 whorls and the body is brown to red in colour. It is one of the largest land snails in British Columbia. The Oregon Forestsnail is active in the spring mating season and perhaps most remarkable is that it takes approximately five years to reach sexual maturity. If it is indeed on Galiano it would most likely be spotted living in large amounts of leaf litter and among abundant understory vegetation.

Oregon Forestsnail, *Allogona townsendiana*

Photo by Kristiina Ovaska

Early spring is also the ideal time to spot the Sharp-tailed snake (*Contia tenuis*). It is also a red listed and endangered species that has not yet been found on Galiano. It comes out of hibernation in the early spring. It is very small and dark brown to red in colour and can be confused with garter snakes. However, the latter is typically a snake you would come across during the warmer months. Unlike most reptiles, these snakes avoid the heat of the summer by hiding underground. Furthermore, they are nocturnal which means spotting them is not an easy task. These snakes generally live on south-facing slopes and in Douglas fir forests hiding under rocks, logs and branches.

Sharp-tailed snake, *Contia tenuis*

Photo by Christian Engelstoft

The Great Blue Heron (*Ardea Herodias fannini*) can be spotted year round but is most active in the early spring. It is a blue-listed species and under special concern. It feeds in slow moving bodies of water and on Galiano it can be found in inlets, bays, Laughlin Lake and in wet meadows. No nests have been confirmed on Galiano Island but they are difficult to spot as the Heron builds them very high up in mature conifer trees. The Heron found in this region does not migrate but does feed in different areas depending on the season. The bird's diet includes fish, small mammals, reptiles, amphibians and other birds. In the spring they will start to move from wet grasslands to the shore.

Great Blue Heron, *Ardea Herodias fannini*

Photo by Sky Forest

The Western Screech Owl (*Megascops kennicottii*) is also blue listed and of special concern. It has not yet been found on Galiano. It is a small brown bird with streaked plumage, yellow eyes and feather tufts over the ears. Its habitat is quite varied, ranging from suburban areas to semi-open woodlands. However, they prefer open areas to forage for food and cavities in old trees for roosting. The Western Screech Owl is nocturnal and it is during this time that is can be heard screeching. It is a territorial call and can be heard year round. Eggs are laid between March and May. Finally, this is a good time of year to be on the lookout for one of Galiano's most majestic creatures.

Western Screech Owl
Megascops kennicottii

Photo by Dan Lockshaw

The Peregrine Falcon (*Falco peregrinus anatum and Falco peregrinus pealei)* is a red-listed bird of special concern that has been found on Galiano Island. It is considered to be one of the most remarkable birds of prey. It is the fastest bird in the world, reaching speeds of up to 320 km/h. The two species have long, pointed wings, a black head, yellow rings around the eyes, a yellow bill and a dark tail. They nest on cliff edges that afford them a considerable vantage point in which to hunt prey. These falcons are largely migratory birds, but the two species on Galiano are known to stay in the area. They have high nest fidelity and tend to come back to the same nest year after year. The Peregrine Falcon will lay eggs in the spring and sit on them for approximately a month while the male feeds her. Their diet includes shorebirds, water fowl, small mammals and even insects

Peregrine Falcon
Falco peregrinus anatum and Falco peregrinus pealei

Photo by Helen Grose

If you have seen any of the above species (or the nest of the a Great Blue Heron) we would love to hear about it. Happy hunting and enjoy the longer days!.

Intern Projects Focus on Species At Risk

by Marc Verbenkov

Interns Anuschka, Thorsten, Marus, and Sophie-Anne at Laughlin Lake.

Over the years the Galiano Conservancy Association has worked with and employed many people from various backgrounds and interests. However, it's safe to say that they have shared a common concern when it comes to environmental work – and that is a concern for the protection of species at risk (SAR). So when funding was received from the Habitat Stewardship Program (HSP) in 2009, and again in 2010, the Conservancy decided to bring a species-at-risk lens to Galiano through the SAR program. Thanks to this effort and a number of inspired interns, the SAR program projects incorporated awareness and recovery of species at risk with public outreach and restoration projects on specific habitats.

Landowner Contact and Outreach: Tyla Crowe

Tyla Crowe was hired as the Species at Risk coordinator in 2009 and focused mainly on outreach and contact with owners of private lands. The landowners were chosen through the use of a GIS map created by our mapping technician. The map linked species requirements to various properties and incorporated federal and provincial species ratings to determine the highest priority sites. This project successfully organized 50 stewardship walks and gathered 20 non-binding stewardship agreements.

In addition to this, Tyla enlisted the expertise of several professionals not only to help identify the likelihood of certain at-risk species occurring on the island, but to teach Conservancy staff about them. Some of the experts included: Christian Engelstoff, Kristiina Ovaska, and Terry McIntosh, specialising in sharp-tailed snakes, gastropods, and mosses, respectively.

As part of her outreach venture, Tyla set up an additional page on the Conservancy's website concerning local species at risk. She has furthered the investigation of historical species-at-risk populations and habitat through work with an elder from the Penelakut nation, a discipline in the environmental field knows as Traditional Ecological Knowledge (TEK). TEK aids in species-at-risk recovery and planning by incorporating Indigenous values, stories and memory in ecological restoration planning and recovery.

Tyla sampling some local escargot (Pacific Sideband Snail).

Biologist: Sophie-Anne Blanchette

Sophie-Anne was hired as the Species-at-Risk biologist, and commenced doing surveys and monitoring for the species at risk as the season dictated. Of particular interest for her was the Western Screech Owl, which only had historical sightings as the invasive Barred Owl has occupied much of its territory. Continuing with the outreach aspect of the program, Sophie-Anne offered an owl search/educational activity for children and parents in the Pebble Beach Reserve. Using a megaphone to amplify pre-recorded Western Screech Owl calls, they listened for and documented responses. A number of owls did respond to the calls, though unfortunately not the Screech Owl. Still, the activity spurred a great deal of participant interest

in and concern for the birds. Apart from working with Tyla in landowner contact, Sophie-Anne also spoke at the Annual General Meeting for the Galiano Conservancy Association and presented the SAR program to the local community and other groups.

Sophie-Anne leading an evening owl education program.

Apart from outreach and contact, field work was also a large part of Sophie-Anne's time here. The Western Screech Owl was only one of several species that she searched for. Using historical knowledge and current research on the species, Sophie-Anne confirmed the identity of 16 species at risk with multiple sightings in most cases. She also initiated the return of the Purple Martin by placing artificial nesting boxes at Saltery Bay and Retreat Cove, both of which proved successful in bringing back the extirpated bird!

Dragonflies: Anuschka Tecker and Thorsten Obracay

One of the interesting things about the Galiano Conservancy Association is the number of international interns who arrive and take on a project of their own for the duration of their practical internship; Sophie-Anne introduced Anuschka and Thorsten (two German interns) to the dragonflies on Galiano Island and they took it from there.

Anuschka and Thorsten focused on the two species of dragonflies at risk on Galiano Island: the Blue Dasher (*Pachydiplax longipennis*), and the Western Pondhawk (*Erythemis collocate*). Using GIS programming they created an initial map with potential habitats for the two insects. Presence and absence surveying ranging the entire length of the island was done during the summer months. The Blue Dasher was confirmed at 19 separate wetlands, while the Western Pondhawk was confirmed at 15 separate wetlands. Valuable indicators of the most important structures in the dragonflies' habitat on Galiano Island were assessed by studying 13 territories in three different wetlands. This allowed the interns to come up with conservation suggestions that were quite detailed and beneficial for the future.

Dragonfly Identification: Sympetrum illotum

Eelgrass: Trisha Nettleship

Trisha was hired at the Conservancy for nine months through the YWCA Youth EcoInternship Program. Mixing her passion with her work, Trisha kayaked the circumference of Galiano Island in search of eelgrass bed locations. This new data was used to create a map of known eelgrass beds which complemented the development of an eelgrass monitoring workshop for staff training and education about *Zostera marina*. Although eelgrass itself is not a species-at-risk, it is an extremely important marine habitat and nursery for many creatures that may be at risk

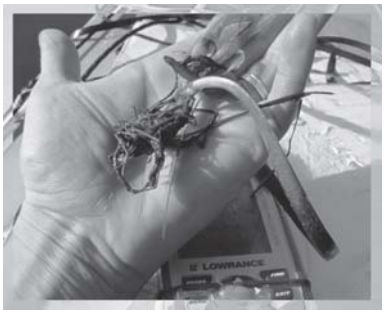
Trisha monitoring an eelgrass bed.

Clearly, the Conservancy has benefited from the unique interests and skills that their interns have brought to their work. Each focused on species at risk and provided Galiano Island with valuable information and a benchmark for the future.

Zostera marina: the saltwater flowering plant

By Trisha Nettleship

What is *Zostera marina*?



Eelgrass roots.

Eelgrass is actually neither a grass nor seaweed; it is a perennial plant (angiosperm) that grows in sandy or muddy substrates year round. Eelgrasses are typically found along shorelines, bays and other shallow areas. However, eelgrass can grow in depths up to 20 feet provided the water column is not too turbid (cloudy). For eelgrasses to thrive they depend upon clear water for photosynthesis.

Why is it so important?

There are several reasons why eelgrass is vital to the health and well-being of our shorelines.

- ✓ Eelgrass beds are one of the most biodiverse and productive ecosystems on Earth, as they support many food webs. These ecosystems provide vital habitat for fish (rockfish, salmon, herring, stickleback, and pike fish), sea stars, sea anemones, nudibranchs, crabs, clams, snails and tiny crustaceans.

- ✓ Eelgrass beds protect shorelines and stabilize sediments by reducing erosion with their rhizome/root mats.

- ✓ Over 80% of the commercially harvested fin fish and shell fish depend upon eelgrass beds as a nursery for young, and therefore, eelgrass is protected under the Federal Fisheries Act in Canada.

- ✓ Nutrients like nitrogen and phosphorus trickle their way to shorelines from places like storm drains, lawns and farms. High levels of these nutrients can cause the "eutrophication process", which stimulates excessive plant growth. These beds are able to extract some of these nutrients right from the water column, and use them to grow, which in turn keeps the shorelines clean and healthy.

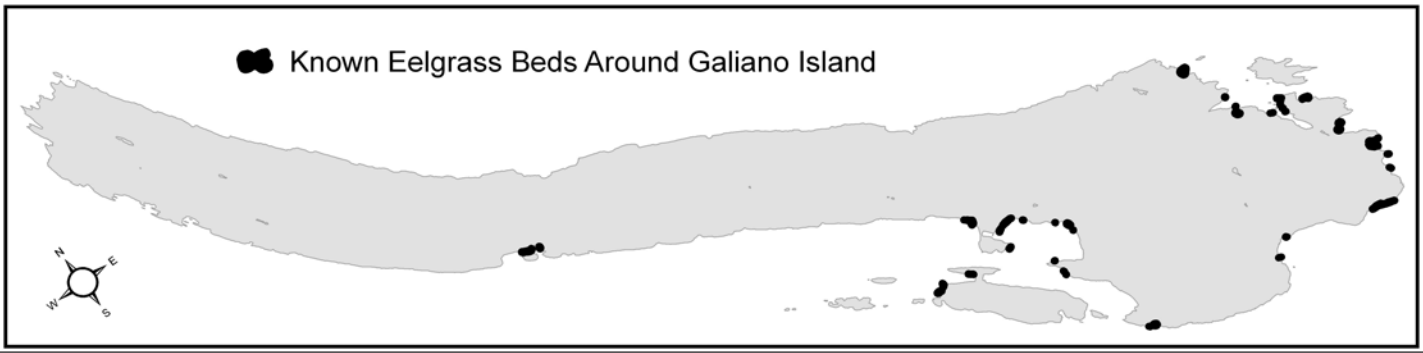
What can we do to keep eelgrass ecosystems healthy?

- ✓ Avoid trampling eelgrass beds when they are exposed at low tide (you never know, you might just be squishing nudibranch eggs!)

- ✓ Shading is a major problem. When docks are erected they create shade that reduces or eliminates the sunlight that is vital for eelgrass to thrive (remember photosynthesis!)

- ✓ Avoid dredging as it tears up the seafloor and introduces silt and sediment into the water column.

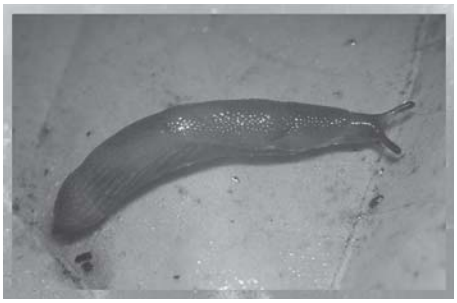
- ✓ Avoid anchoring vessels in areas that have eelgrass beds.



Brilliant Blue

by Maralie Brewer

As a budding biologist I was constantly carting home an array of critters, much to the dismay of my parents. Among many other things, I had an ant farm, bug jar and a constant catch-and-release program in place for frogs. Unfortunately, the frogs never stuck around our pond. I was also developing quite an impressive library and a crude laboratory complete with an old microscope. No memory sticks out in my mind as much as the salamander story. Overjoyed at having finally located one of these elusive creatures, I captured the poor thing. Now is a good time to mention that, if you ever come across one, you should never move them as they may have young nearby and they are known to have a very small and specialized habitat range. Anyway, being the early riser in the family and the younger sister with a mischievous streak, the salamander and I paid a visit to my sister. I then proceeded to wake her up with a wriggling salamander overhead. Little did I know at the time, but when threatened salamanders drop their tail as a distraction for predators. The tail also continues to move. My sister, disgusted by anything slimy and reptilian, freaked out. I must admit, I too, screamed. After all, there was a tail dancing between the bed sheets! After disrupting the entire household, I was ordered to release the salamander. Thus began my penchant for creatures with removable limbs.



Now that I am older, and a little wiser, I appreciate wildlife from a respectable distance. I am now on the search for a small slug, commonly called the blue-grey taildropper slug. Being a red-listed and endangered species, it is, unfortunately, not common at all. *Prophysaon coeruleum* is a small slug (<45mm long) and its colour can range anywhere from grey to brilliant blue. It is slender and has many parallel grooves along its body, and, if you look closely, you can spot the fine line where its tail separates from the rest of its body. As you can gather from its name, when threatened this slug will drop its tail in a bid to buy time to avoid becoming lunch. Predators are generally carnivorous snails and large ground beetles. This slug likes sites that are moist and productive, so anywhere with plentiful understory vegetation such as sword fern, coarse woody debris, and leaf litter, especially from maples, is a likely habitat. Blue-grey taildropper slugs are most active in late fall after the leaves have fallen and it is damp. It is believed that they have an annual life cycle because no one has observed adults in the spring. They may overwinter as eggs and hatch in the spring.

The diet of these slugs is largely mycorrhizal fungi, which is a type of fungus that forms a symbiotic relationship in the roots of plants and trees. These slugs are agents of dispersal for many fungal spores that are located under decaying wood that might not otherwise be dispersed. The fungal relationship is especially important for the conifer tree roots and these slugs may play an important role for this ongoing association. The slugs also feed on plant matter.

It is not known whether the blue-grey taildropper slug is found on Galiano Island as there are no known historical occurrences. That said, the slugs have been found primarily in the Coastal Douglas fir (CDF) biogeoclimatic zone, so there is a good chance the slugs can be found on Galiano. Unfortunately, the Coastal Douglas fir is one of the most disturbed forest types in British Columbia and half of the identified habitat has been developed. Within the CDF, currently 80% of the habitat is privately owned (Cadrin, 2011) and less than 3% is designated as protected area (Holt, 2007). In addition to a shrinking habitat, the introduction of exotic plants and animals has threatened the slugs. The exotic plants replace the native ones, upsetting the balance and habitat conditions. The blue-grey taildropper slug has very limited dispersal ability, so once an area has been disrupted, the slugs are often in peril. It is for this reason that even raking the forest floor for mushrooms and removing logs for firewood can pose a considerable threat. The common black slug, *Arion ater,* also outcompetes the blue-grey taildropper slug for both territory and food.

Despite the seemingly daunting challenges that this slug faces for survival, I encourage you to keep looking. You never know what might greet you next time you peek under an old log or leaf you come across! If you are fortunate enough to be the first person on Galiano to locate one of these reticent slugs, the Conservancy would love to hear all about it.

References:

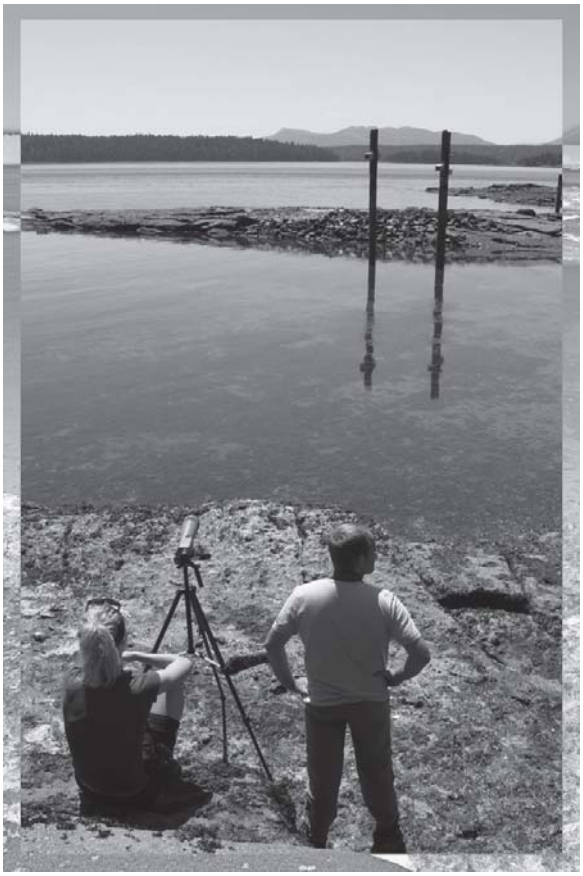
COSEWIC Assessment and Status Report on the Blue-grey Taildropper Slug *Prophysaon coeruleum* in Canada.

http://dsp-psd.pwgsc.gc.ca/Collection/CW69-14-464-2006E.pdf.

Holt, Rachel. 2007. Conservation planning and targets for the Coastal Douglas fir ecosystem.

Avian Romance on the Galiano Waterfront

by Sophie-Anne Blanchette



Watching newly built homes for the return of Purple Martins.

This past May, with the arrival of warmer, longer days, the binoculars and spotting scopes of Galiano Conservancy staff and volunteers were riveted on our newly installed Purple Martin nesting boxes. We were hoping to spot a breeding pair or two taking advantage of the new prime waterfront estates after an exhausting migration from South America. If so, they would be the first known Purple Martin residents on Galiano Island.

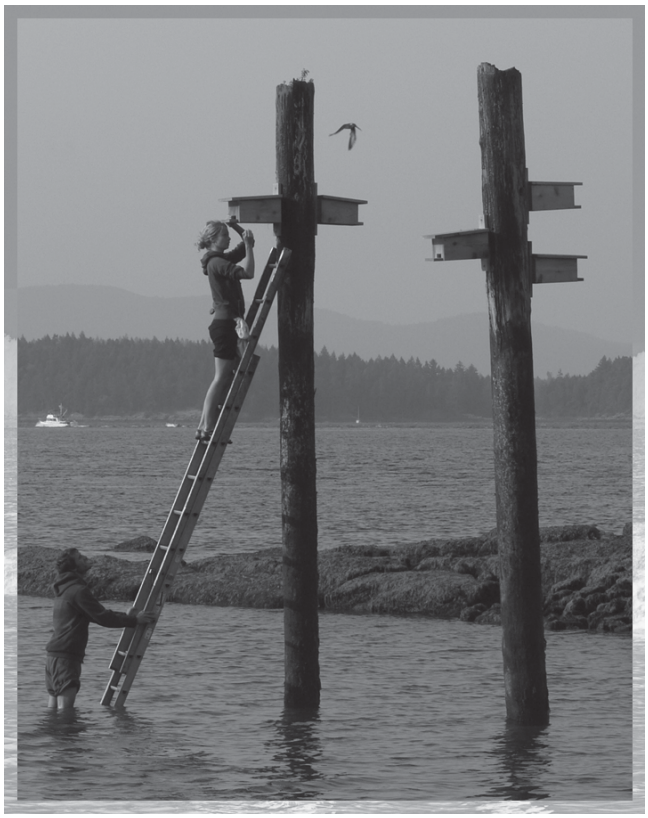
Purple Martin (*Progne subis arbricola*) breed along the west coast of British Columbia up to Campbell River and south all the way down to California. Western Purple Martin, which are genetically distinct from their eastern Canadian cousin (*Progne subis subis*), are a provincial "Species at Risk" in BC (Blue-listed, vulnerable) and a "Species of Concern" in the United States from California to Washington.

Purple Martins spend their winters in distant Amazonia and along the Brazilian coast and begin their extraordinary migration north in the spring. Our target with this project was to attract the younger, less experienced sub-adults (1st years) that would be coming back to the west coast of North America for their first breeding season. The sub-adults usually arrive about six weeks after the fully matured adult birds (2 years and older) who tend to return to the same successful nesting colonies they occupied in previous years. While it is unclear how the first year breeders select their new nesting site, trends show that they are the ones who seem to colonize nest boxes like the ones we created on Galiano.

So why do young Purple Martins need our help? The main cause of their decline is due to the degradation or elimination of their nesting habitat. These birds need abandoned woodpecker holes in older, large diameter trees or snags. Such structures are now a rare commodity on our southern coastal landscape due to the intensity of logging and land development over the past century, leaving the Purple Martins with very limited options. Strong competition for cavities from non-native bird species such as the European Starling and House Sparrow has likely also played a significant role in their decline. The Purple Martin population in British Columbia was down to less than 10 mating pairs at the end of the 1980s.

Inspection of the Purple Martin nesting boxes.

In response to this decline a small group of volunteers initiated a nesting box program along the Washington State coast in the late '70s and here in BC in the mid '80s. They built and installed nesting boxes specifically designed for these large swallows on pilings in the marine intertidal and sub tidal zones of bays and estuaries. The project grew and many more volunteers from different parts of BC joined their efforts.



Purple Martin nesting box installation.

Purple Martins have responded well and their population is recovering. By 2002 there were over 200 mating pairs on the BC Coast, rising to more than 650 pairs by 2007. The initiative, now known as the BC Purple Martin Stewardship and Recovery Program, has a short-term goal to help establish 800 mating pairs by 2012. Given past successes, this might seem like an easy target, but Purple Martins are a highly sensitive species and can be severely affected by fluctuations in climate. For example, in July 2008, a long cold spring followed by a rainy July resulted in poor year for many of the insect species eaten by the Purple Martin – the food shortage ultimately leading to the loss of many birds, slowing down the recovery progression. The larger the population is, the greater their collective resilience to these natural events.

In an effort to reestablish a Purple Martin population on Galiano Island, the Galiano Conservancy Association partnered with the Galiano Naturalists and created two nest box colonies, one in Retreat Cove and one in Saltery Bay. It worked! In early July (a few weeks later than expected) the first birds were spotted flying around our boxes. A total of 12 Purple Martins were seen flying around and perching on the pilings at our two locations. Two pairs of sub-adult birds eventually built nests and laid eggs. The new residents were closely monitored and their progression followed until the hatchlings fledged in early September. Off they went with the whole family on their 10,000+ kilometers journey south, hopefully to spend a few months resting and then return again next year!

The recovery of Purple Martins on Galiano is just one component of the larger Species at Risk program being led by the Galiano Conservancy Association. With the federal Habitat Stewardship Program (HSP) funds received in 2009 and 2010 we have been able to establish a foundation for species at risk awareness and recovery. Purple Martins are only one of 22 federally and 9 provincially listed species we are working with. The HSP is part of Canada's national strategy for the protection of species at risk. It provides funding to various stewards across the country to engage local residents in conservation and restoration.

On Galiano, conservation efforts have included land acquisition for protection, habitat enhancement and ecological restoration with species at risk in mind, rare species inventory and monitoring as well as public outreach and education.

For more information about the Purple Martin and our Species at Risk initiatives, give us a call (250-539-2424) or e-mail (conservation@galianoconservancy.ca) drop by our office on Galiano or visit our webpage at www.galianoconservancy.ca.

If you are interested in starting a similar project check out the Western Purple Martin Foundation at http://www.saveourmartins.org/or and the Purple Martin page by the Georgia Basin Ecological Assessment and Recovery Society at http://www.georgiabasin.ca/puma.htm for more information.

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Providing Habitat for Galiano Butterflies

by Pauline Brest van Kempen

Since the Conservancy has been monitoring species-at-risk on Galiano, it has recorded sightings of two blue-listed (of special concern) butterflies in 2010. The **Propertius Duskywing**, was found at Bodega Ridge, Mount Galiano, Mount Sutil and Bluffs Park. Garry oak leaves are the exclusive food plant for the larvae (caterpillars), while the adult butterflies nectar on Garry oak meadow flowers, such as camas and hooker's onion. **Moss' Elfin** was found at Bodega Ridge and Mount Galiano. Stonecrop is essential for this butterfly's survival: the adult Moss' Elfin sip nectar from the flowers and the larvae feed on the leaves.

Propertius Duskywing
Erynnis propertius

Moss' Elfin
Callophrys mossii mossii

The preservation of Garry oak woodland is crucial for the survival of these species. Invasive plants such as Scotch broom pose a threat since they crowd out native vegetation important to the butterflies. *Please check our website for photos and descriptions of these species: www.galianoconservancy.ca.*

More commonly seen butterflies on Galiano that are not at-risk include:

- Woodland Skipper – larvae feed on native grasses;
- Spring Azure – larvae feed on oceanspray, dogwood and spiraea; and,
- Western Tiger Swallowtail – larvae feed on willows.

To attract butterflies, the most important factor is the availability of food plants for the larvae. Also necessary are nectar sources (flowers) for the adults. Provide a mixture of plants that provide blooms from spring to fall, since there is a wide range of flying times for adult butterflies. There are many native plants that provide excellent nectar sources such as mock orange, oceanspray, Oregon grape, pearly everlasting, stonecrop and yarrow. Some species, such as swallowtails, need to "puddle" for water and nutrients. A shallow dish or bird-bath with half-submerged stones as perches provides a good water source. If you are trying to attract butterflies, remember that they prefer areas that are sunny and sheltered from the wind.

Students and volunteers planting native vegetation at the school garden.

The Conservancy received funding from VanCity to facilitate a Climate Change Action Project at the Galiano Community School. One of the components of this grant was habitat creation. With assistance from the Galiano Community Food Program, teachers and students from the school, and volunteers, the school garden was expanded in October 2010 by installing native vegetation to provide habitat for butterflies as well as to attract beneficial insects and pollinators.

Celebration after the planting day in the garden.

From Galiano, to the World Unknown, and Back Again

by Marc Verbenkov

Upon returning from a year-long backpacking trip through most of Latin America, I found myself nearly broke, full of exotic parasites and bacteria, but re-connected to the natural environment and inspired to learn more as well as take action. After years of living in cities with their constant hum and rapid lifestyle, I was unwilling to return to that way of living and felt drawn to the nostalgic territory of Galiano Island.

New species at risk on Galiano? - or is it Galapagos!

Coming to Galiano often as a young child, I was constantly exploring, getting dirty, and catching (yet, always releasing) frogs, newts, snakes, bugs, and pretty much anything I could get my hands on. Coming back as an adult, I noticed a dramatic decline of some of these species from the familiar ponds and creeks. It aroused my curiosity and prompted me to begin volunteering for the Galiano Conservancy Association.

My initial task involved a work party at the Heritage Forest – namely pulling out the pretty yellow-flowering plants whose seed pods exploded when touched. I had always gotten a kick out of them as a child I soon learned that these plants were none other than Scotch Broom, the infamous habitat degrader! Drawing inspiration from my time in protected natural reserves and from volunteering with wildlife refuges, I became interested in understanding the larger picture of the work being done at the Conservancy.

I helped out with various tasks such as potting salvaged saplings at the native plant nursery, and observing the development of a restoration plan as it was devised on-site. Now, I understand why removing invasive species, digging holes and plopping young trees and shrubs into the ground as replacement species is vital to restoring a forest.

Intermixed with the ongoing removal of broom and potting of plants, a number of other activities helped me to understand other restoration processes in the larger environment. I began reading about and studying symbiotic relationships between habitats, and one case study of the Columbia River Basin, in particular helped me to understand that relationship between forests and the immediate coastline. The study noted that fish stocks have been declining due to over fishing and hydroelectric generation projects. By monitoring eelgrass and comparing what they found from an eagle nest inventory, they noticed interdependency. As a result, Bald Eagles had switched to a different food source, namely waterfowl. The waterfowl graze on eelgrass; the eelgrass is a protective habitat for young fish of all kinds. With increased predation of waterfowl from eagles, there is more eelgrass and, eventually, more fish. This will allow eagles to switch back to their traditional diet. Clearly, the preservation and restoration of one ecosystem affects another. (Reference: http://www.ecoinfo.org/env_ind/region/baldeagle/eagle_e.cfm)

I then decided to try my luck with a few educational day programs with off-island youth. I saw the kids becoming aware of the natural environment and enthusiastically respond to the education program. It solidified in my mind that education is key to the survival of the environment. I thought about the environmental destruction by uninformed people that I had witnessed in other countries and realized that, although there were a number of reasons for it, educating people can have an immediate positive impact.

My involvement in the Conservancy project to map threats to known species at risk was a perfect beginning for a long hoped for, but never expected internship. The project has provided me with a deeper look into some of the roles required for conservation and restoration of a natural area. My role has been to research Galiano's known and potential species at risk, map potential threats, compile historic and current information, and raise awareness of the issues with private landowners. Through this work it has been intriguing for me to understand the relationship between restoring habitat, and the introduction, or return of, an at-risk species to a previously inhospitable environment. Through education, people begin to understand these connections and the impact their actions can have.

My time at the Conservancy has allowed me to amass a varied amount of information and try to understand what these friendly, caring and very patient people spend so much time doing. I know it is significant to our small part of the globe. Through my work with the Species at Risk and restoration projects, I have gained the skills and understanding of restoration needed to secure an internship in warmer climates. And, as I learn more, perhaps someday, I will return with an even greater capacity to help.

Galiano Island Species at Risk Status

List was compiled by SAR biologists, Galiano Conservancy Association and other organizations.

Common Name	Scientific Name	BC Listing	COSEWIC*	Galiano Sighting
Plants:				
California Hedge Parsley	*Yabea Microcarpa*	Red	Not Listed	Yes
Gray's Desert Parsley	*Gray's Lomatium grayi*	Red	Threatened	Yes
Farewell-to-Spring	*Clarkia Amoena*	Blue	Not Listed	Yes
Phantom Orchid	*Cephalanthera Austinae*	Red	Threatened	No
Slender Popcornflower	*PlagiobothrysTenellus*	Red	Threatened	Not recently
White Meconella	*Meconella Oregana*	Red	Endangered	Not recently
Scalepod	*Idahoa Scapigera*	Red	Not Listed	Yes
Mosses:				
Twisted Oak moss	*Suntrichia laevipia*	Blue	Special Concern	Unconfirmed
Banded Cord-moss	*Entosthodon fascicularis*	Blue	Special Concern	No
Rigid Apple moss	*Bartramia stricta*	Red	Endangered	No
Insects:				
Blue Dasher	*Pachydiplax*	Blue	Not Listed	Yes
Propertius Duskywing	*Erynnis propertius*	Blue	Not Listed	Yes
Western Pondhalk	*Erythemis collocate*	Blue	Not Listed	Yes
Dun Skipper	*Euphyes vestries*	Blue	Threatened	No
Taylor's Checkerspot	*Euphydryas editha taylori*	Red	Endangered	No
Island Blue	*Plebejus saepiolus insulanus*	Red	Endangered	No
Moss's Elfin	*Callophrys mossii mossii*	Blue	Not Listed	Yes
Gastropods:				
Blue-Grey Taildropper Slug	*Prophysaon coeruleum*	Red	Endangered	No
Oregon Forestsnail	*Allogona townsendiana*	Red	Endangered	No
Pacific Sideband	*Monadenia fidelis*	Blue	Not Listed	Yes
Birds:				
Band Tailed Pigeon	*Patagioenas fasciata*	Blue	Threatened	Yes
Common Night Hawk	*Chordeiles minor*	Red	Special Concern	Yes
Great Blue Heron	*Ardea herodias fannini*	Blue	Special Concern	Yes
Olive Sided Flycatcher	*Contopus cooperi*	Blue	Threatened	Yes
Peregrine Falcon	*Falco peregrinus anatum*	Red	Special Concern	Yes
Western Screech Owl	*Megascops kennicottii*	Blue	Special Concern	Not recently
Purple Martin	*Progne subis*	Blue	Not Listed	Yes
Amphibians and Reptiles:				
Red Legged Frog	*Rana aurora*	Blue	Special Concern	Yes
Western Painted Turtle	*Chrysemys pict bellii*	Blue	Endangered	Unconfirmed
Sharp Tailed Snake	*Contia tenuis*	Red	Endangered	Not recently

**COSEWIC is the Committee on the Status of Endangered Wildlife in Canada*