



# NEWSLETTER

P.O. Box 60, Denman Island, B.C. V0R 1T0

September 2017

## Growing Up as a Bat on Denman

by Jenny Balke

### Lucky to see a bat?

Naomi Klein, among her grave predictions in “This Changes Everything”, worried that climate change might prevent her young son from ever seeing a bat. When writing the book (2013), she observed that 100,000 bats were dying due to record-breaking heat in Queensland, Australia, leaving the bat colony devastated. Four years later, by 2017 - a year that Naomi concluded would be the turning point for taking possible action to control a 2°C global warming - North America has had millions of bats wiped out due to White Nose Disease.

Fortunately, we are still lucky enough to have a rich and abundant bat biodiversity on Denman. Retaining bat-sighting opportunities for future kids is certainly important. As is retaining bats to eat flying invertebrates that feed on us and our plants, and also maintaining the bats’ place in our complex ecosystem-web. So this year DCA embarked on a project to enhance bat habitat and build community bat awareness. ....Continued over

***Always Think Rabies First! – do not handle bats without gloves and care!***



## Book Sale Results

by DD Fuchs

The 2017 annual DCA book sale at the Blackberry Faire was the most successful yet due to the tremendous support of the community. Thank you to everyone who donated books and to everyone who purchased books by donation. This year we had over 240 boxes of books donated by Denman Islanders and another 30 boxes donated by the Hornby Island Community Fund. The Hornby Island Community Fund collects book donations throughout the year and distributes the proceeds to Hornby non-profit organizations. For the past four years, they have donated their unsold books to the Conservancy for the Blackberry Faire book sale. They are pleased, as are we, with this mutually beneficial relationship between our two islands and hope it will continue for years to come. As with last year, we had so many books that we decided to continue the sale on Saturday mornings throughout September in the Conservancy Room at the Old School. So far, this year, donations of books and cash towards the purchase of books has contributed over \$2200 towards maintaining conservation lands and their trails on Denman Island. Thank you to everyone, but it’s not over yet! **Books will still be available for purchase by donation on Saturday morning, September 30.** And in case you’re wondering, at the end of our sale, all the left-over books are donated to the Rotary Club book sale in Courtenay. See you on Saturday for the last chance book sale!

**At left, a Denman Bat leaving the Old School roost.**

The nightly nature spectacle at the Old School continued through summer as hundreds of bats set out just after sunset for a night’s foraging. They come out in bunches and it really is fun to watch. It seems perverse to me that unlike co-operative birds these guys insist on flying in near darkness when my steadily aging eyes find it challenging to spot them coming in time to press a shutter release.

*Comment & Photo by Dennis Forsyth*

## So what's it like to grow up as a bat?

### FALL

As the bats get ready to leave Denman in the fall, the sexes meet up and conceive the next bat generation. Currently we have at least 9 species of insect-eating bats that are starting to leave their summer haunts for their winter hibernacula. Bat houses empty out, and roofing, shakes and other crevices no longer scratch and squeak with noisy occupants. Small guano piles are all that remain! While mating takes place in the fall, actual fertilization and embryo growth doesn't occur until the female bats are en route to the summer roost sites in the spring.

### WINTER

Bats get to sleep through the winter. Generally bats need protected hibernacula for the winter, with a constant humid environment and temperatures of 0-5°C. Most bats hibernate off Denman, but a few stay and are seen on mild winter evenings. Why do some stay? We don't know. Nor do we know if these ones survive, especially if it gets very cold. Where are these off-Denman hibernacula? That's another unknown! If folks see bats in the winter, please record the date/time/place of your sighting at email [di2017bats@gmail.com](mailto:di2017bats@gmail.com) or 335-2151. Also, please let us know of any dead bats found. All observations are important and add to our understanding of Denman's bat life!

### SPRING

Bats return! Mums are pregnant with their developing offspring. The gestation lasts 7 weeks, but can be delayed up to 10, if the temperatures are cool. Bats come back to where they were born, or to new, suitable sites in their birth neighbourhood. Once in the bat house, large tree, building or other crevice, babies are born. Baby bats, usually one per mum, are helpless like puppies and are about 25% of the mum's weight. In bat houses, groups of mums and young huddle together for warmth, chatting and squirming. Females of the two bigger forest bat species may roost in colonies or family groups, in trees, and may have 1 to 4 young. Maternal bat colonies need lots of heat – such as bat houses with full on sun! On cool days, mums can't chill their metabolism and go into torpor as male bats do. Nursing babies requires that mums stay warm and thus maternal colonies must be in hot habitats. Each warm evening, mums head out to drink from the nearby pond or other water source and then hunt for insects.

### SUMMER

Baby bats grow remarkably fast. In just a few days they can see, their ears are up and their fur grows, often darker, duller and shorter than their mum's. By 3

to 6 weeks they are adult size, they can fly, echolocate and eat solid food! At this time they are weaned.

Thus, near the end of July, young bats take their first flight. Tumbling from their perch as they test those wings...the only mammals capable of true flight! Their thin winged-arm membranes can carry them, as most bat species weigh only about as much as a loonie or toonie. The young bats practice complex flying exercises and also learn to hunt insects by mastering advanced echolocation techniques in the dark! But there's always a few timid young that cling to solid supports, crash land or can't get home as day approaches. Sadly many of these won't survive. Here on Denman, cats are likely one of our bats greatest predators.

Gradually the young become proficient in flying and hunting insects. As they do, they move out into the forest with the adults. Some bats will try new day roosts near their birth-place. This is the time when the future mum's may explore and spend a day or two in your new bat house. All the while they are feeding on as many insects as possible to accumulate enough energy to last through the long winter. Young female bats may mate the following fall and, in the spring, head back to maternal colonies. Young males will return to Denman next spring to patrol for insects and spend the summer days hanging out in a variety of crevices or unoccupied bat houses. Our long-lived bats, like the Little Brown bats that may reside on Denman for up to 30 years, keep our forest and meadow ecosystems complex and healthy.

### Bat Calendar Summary

**April-May:** Adults return to Denman. Females fly to maternal colonies in bat houses or other warm maternal habitats. Males occupy a variety of crevice habitats. Large forest bats roost in trees.

**May-June:** Female bats hunt insects, birth young and nurse babies in maternal colonies. Males hunt insects.

**July:** Young bats take first flight. All bats are hunting insects.

**August-September:** Bats, still hunting insects, move out into forests and may check out new day-roost habitats (additional new bat houses).

**September:** Bats mate and leave Denman for hibernacula at unknown destinations.

**October-April:** Most bats hibernate in cave-type sites with a stable temperature and humidity. Disturbances at hibernacula can lead to exhaustion of the bats' winter reserves resulting in disease and death of the bat colony. Much work in the USA has been done to protect old mines and caves where bats hibernate. Most hibernacula in BC are unknown.

## DCA Volunteer Interns

*by Anne Fisher*

DCA's new volunteer internship program got off to a great start this summer with two volunteer interns: Tynan Phillips and Willow Hunt-Scott. Both interns are from local families and lived on Denman for some or all of their growing up years. Willow and Tynan generously gave their time and enthusiasm to contribute to several of DCA's ongoing projects. Willow was primarily involved with designing the butterfly garden that will be created in the Settlement Lands. Of her experience providing information at the Butterfly Reserve during the Home and Garden Tour, Willow said "People were so curious, wanting to learn about the Taylor's Checkerspot Butterfly and find out more about the DCA. I am still so fascinated that Denman Island is the only breeding place in Canada for the Taylor's Checkerspot Butterfly!"

Tynan's main focus was initiating the Settlement Lands wetland monitoring. In addition to selecting monitoring sites and researching water quality monitoring equipment, Tynan spent many hours in the Settlement Lands on the lookout for signs of beaver activity. The beavers are out there and Tynan took some great photographs to prove it! Tynan also joined a broom removal work bee and cleared trails. With Land Manager Erika Bland, Tynan installed 3 staff gauges that will be used to measure water levels in wetlands in the Settlement Lands.

DCA sincerely thanks Tynan and Willow for their help, and shares Willow's sentiments. In Willow's words: "There are so many passionate community members committed to conservation on Denman, it was a gift to be able to absorb a bit of knowledge during my involvement. Gilakas'la (Thank-you)."

## Home and Garden Tour Wrap Up

*by DD Fuchs*

This past May the Conservancy hosted another terrific Home and Garden Tour. A huge thank you goes out to all the volunteers who made it possible, but most especially to the homeowners who opened their homes and gardens: Annie and Hamish Kimmins; Tim Jeffrey; Pat and Selwyn Jones; Vivian McMillan and Keith Boutcher; Trish Suess; Ann de Cosson and Larry Berg; Linda and Glen Pollitt; Des and Sandy Kennedy; Carol and John Ralston; Sam Croome and Emily Anderson; and Rick and Ann Paisley.

Tour goers, myself among them, were impressed by the diversity of the homes and gardens this year and by the vibrancy of the Denman Island community that was showcased. This was in large part due to the vision of Emily Guinane, our tour coordinator who chose to include not only Denman's fabulous gardens, but also to provide a glimpse of the variety of ways we live and sustain ourselves. This year the tour included St. Saviour Anglican Church (thanks to Shelagh Horner and Naomi Elliot); the home-based businesses of Two Roads Farm, East Cider Apple Orchard and Corlan Vineyard as well as the Conservancy's Butterfly Reserve.

The Home and Garden Tour is the Conservancy's main fundraiser and thanks to its tradition of excellence and to the social media savvy of Emily and our media coordinator Katrina Meglic, the tour attracted nearly 1250 visitors and netted the Conservancy over \$15,000. Thank you to all who visited the tour, to all the gardeners, to the lunch and dessert providers, and to all the volunteers, who made this year's tour such a success. And of course special thanks to Emily and Katerina for jobs well done and to Roxanna Mandrake and Doug Bell for hosting a wonderful after-party with the help of Lee Andra Jacobs' catering. Next year we get to relax, but be prepared for another great tour in 2019!

### **Settlement Lands walk: October 29, 1 pm.**

Meet on Central Road by the kiosk. (Central Road runs between Pickles Road and Lake Road) on Sunday October 29.

Enjoy a 2 hour (costume-optional) walk and talk to celebrate the wild and wonderful creatures of the Settlement Lands, and explore some of the newly cleared trail network. Please leave your dog at home on this occasion.



Susan-Marie Yoshihara, Erika Bland and Tynan Phillips trail clearing in the Settlement Lands.

## Notes from the Land (Manager) – End of Summer Madness!

by Erika Bland

Well, folks, I honestly don't think my 'to do' list has ever been so long. Outside of the regular September-type things (mostly getting back out into the woods to check on the trails and the signs and things like that after a summer of 'slacking off'—ha ha), we've got some new and exciting projects ramping up in the Settlement Lands, thanks to substantial grant funding from BC's Habitat Conservation Trust Foundation, the National Wetland Conservation Fund, Habitat Stewardship Program (Federal), and BC Bats. Over the summer, these projects were launched and aided immensely by DCA's (first ever) summer student interns (see pg. 3)—a.k.a. friendly and enthusiastic guinea pigs who were delightfully patient with us as we tried our best to iron out the wrinkles of our new Internship Program. We will continue the projects that our Interns started over the coming seasons, beginning with laying the groundwork for the Pollinator Garden, which will serve as a nursery for native flora (propagated from seeds and plants on-site) used by the Taylor's Checkerspot butterfly and other threatened invertebrate species. While physically improving nectar plant vegetation density in the Reserve, this garden will also serve as an educational focal point for visitors, with interpretive information about pollinators and their host species.



Willow Hunt-Scott  
DCA intern this  
summer.

Invasive species removal will continue, of course, and we have been fortunate to acquire some very helpful tools for ongoing work on the Settlement Lands and other DCA properties. With grant funding and generous discounts from two local retailers (Courtenay Home Depot and Comox Rentals and Recreation) we purchased basic pruning and garden tools, a gas-powered brush cutter, and a battery-powered reciprocating saw. Over the winter months we also plan to mark and map the boundary of the Butterfly Reserve area, and erect some basic trail signage, as

well as build an Information Kiosk featuring property trail maps.

Just in time for the rising waters, we have installed simple water depth gauges in Pickles and Homestead marshes, and have acquired a professional multi-parameter water quality testing instrument. These will help us to create a hydrology baseline and monitor changes in these wetlands over time. In the coming months, we will create a database and monitoring templates to organize this work—any nerdy Excel Whiz out there needing a little winter project, you call me, please.

Wildlife monitoring (so far, we are focusing on beaver, bats, birds and invertebrates) will also make up a substantial portion of grant project work. In addition to continuing invertebrates monitoring, Maternal bat colony nesting boxes will be installed in the two major marshes in the Settlement Lands, providing additional safe nesting and rearing habitat for bat species. Bat call analysis using the sophisticated Anabat call recorder, will help us understand more about bat species richness and diversity there. This work is in conjunction with the great Bat House Building Bee of 2017, in which Hornby and Denman Islands have been outfitted with many new residences for our bat friends. All this is fearlessly led by Jenny Balke, and with a broken leg, no less!

A major step in securing the Conservation status of the Settlement Lands was completed this month. DCA representatives signed the Conservation Covenant that is to be held by Island Trust Fund. Along with the Covenant our Management Plan for the property has been agreed with ITF and they will monitor the property annually for compliance with the Covenant.

In late October, join us in celebrating all these Wild and Wonderful Critters of the Settlement Lands with a DCA Walk and Talk led by Andrew Fyson. Bat, butterfly, bird and beaver masks and costumes encouraged. See Page 3 for details.

## Conservancies Meet

In November Conservancies from across Canada will meet in Victoria. DCA will be represented. One aim is the revival of a national alliance of Conservancy organizations. Along with workshops and keynote speakers the meeting will consider the updating of the Canada Standards and Practices code which is a guide the DCA Board strives to follow in its operations.

**Newsletter Contributors:** Jenny Balke, Erika Bland, Anne Fisher, Dennis Forsyth, DD Fuchs, Stirling Fraser, John Millen.