Denman Hornby Bat Project

Year 1



Report Submitted to Denman Conservancy Association & Conservancy Hornby Island

> By J. Balke RP Bio

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Cover photos courtesy the photography of Dennis Forsyth and the participation of bats at the Denman Old School Building.

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Bat Project Activities 2017-2018

1 Initiation of the Denman Hornby Bat Project

The Denman Conservancy Association (DCA) has a long history of activities involving bat species on Denman Island. Since 1994-5, DCA board member and biologist J. Balke was active in bat projects and bat education within BC. DCA became the steward of the Old School maternal bat colony in the mid-1990's and produced DCA's "Bat Package – A Compilation of Useful Information About Bats" in 1999 for community education. Since bats are the only mammal species capable of sustained flight and as they also hibernate in locations that are probably off-island in winter, it was presumed that Denman and Hornby might share their returning spring-summer bat inhabitants. Thus, a bat conservation project between the two small neighbouring islands seemed a sensible approach.

Meanwhile, biologists in other areas of BC, particularly in the Kootenays, were increasingly active in bat conservation and bat habitat stewardship. A"BC bat" organization was actively working on bat issues and was growing in membership across the province. The Habitat Acquisition Trust (HAT) in Victoria became part of BC Bats and had a major program involving the Victoria Area and the southern Gulf Islands. In addition, White Nose Disease had devastated the populations of several bat species across North America. Canada's formerly common Little brown bat was now on the Endangered Species List In 2017, aware of the need for community bat-awareness, DCA and Conservancy Hornby Island (CHI) collaborated to join BC Bats and to initiate a project aimed at broadening the community's understanding of bats' ecological role and to increase maternal bat habitat on the islands.

Note: This report also includes not only the 2017-18 data, but also some of the available Denman bat data since 1995.

2 Bat Outreach

2.1 Presentations

"Talks about bats" were given at three venues, to the:

- Denman community in the Denman Old School building (Denman Conservancy Association evening presentation),
- Hornby community at the Hornby Community Centre (Hornby Conservancy AGM speaker),
- Courtenay/Comox naturalists at the Florence Filberg Centre in Courtenay (Comox Nature's monthly meeting speaker).





Figure 1. Bat presentation at the Hornby Island community hall November 20, 2017.

Approximately 200 persons attended these events. In addition, on Denman, workshops were given about bat house materials, bat house construction, and 'crafting' felted bats. In addition, a small portable bat-camera-monitor (see 3.2 below) that was able to show real-time pictures of bats occupying the attic of Denman's Old School building, was displayed to attendees at Denman's early summer markets.



Figure 2. Bat felting workshop at Felt and Fibre, Denman Island October 30, 2017.

2.2 Articles

Eight articles were published in the local press and three of these are included in the Appendix. The "local press" included: the Denman Flagstone, the Hornby First Edition and the Denman Conservancy Association newsletter in the Denman Island Grapevine.

2.3 Website Information

Denman Conservancy Association (DCA) web site <u>http://www.denman-conservancy.org/</u> was redesigned by website manager John Millen to begin to include Denman's natural history elements, shown under the "Denman Nature" tab. Bats were the first species group to be featured.



Figure 3. Denman Conservancy Association web site.

2.4 Building-trade Professional Contacts

In 2017-18, BC Bats organizers published several enhanced "BC Community Bat program brochures", as shown below, and these informative and attractive materials are being given out on Denman. So far, they have been given to a realtor, a roofer and a pest management professional, all working locally. All of the current brochures will be given out to these professional user-groups as well as to builders on both islands. The "Got Bats? A BC Guide for Managing Bats in Buildings" pamphlet is considered particularly valuable and has been much appreciated.



Figure 4. BC Community Bat Program brochures.

2.5 Community Contacts

The Denman Hornby Bat Program maintained an email contact for the program <u>di2017bats@gmail.com</u> and also the project bat biologist's personal contact information was used. More than 17 people called or emailed specifically about bat issues and over 50 were contacted, often multiple times, about bat houses and dead or injured bats.

3 Bat Habitat

3.1 Natural Habitat

Denman Island has many natural wetland habitats and almost 25 % of the island is protected for conservation, but at this time no major natural bat roosts are known. Acoustic monitoring was carried out at three natural wetland habitats during the summer of 2017: Morrison Marsh Nature Reserve, Lindsay Dickson Nature Reserve (Graham Lake) and Valens Brook mouth. These recordings are awaiting analysis. In addition, a weeklong monitoring of bats at Morrison Marsh, by Islands Trust Fund consultants from Salt Spring Island using their Conservancy's equipment, was analyzed by Peter Ommundsen. Peter identified eight bat species that had been using the southern end of the marsh that week, as shown in Table 1 below, and the presence of Brazilian free-tailed calls was also suspected.

Table 1. Bat species identified at Morrison Marsh Nature Reserve Denman Island July 2017.



Denman – Pre-2017 Bat Field Data

2016 During the summer of 2016, acoustic recordings were made with an Anabat Walkabout borrowed from the Salt Spring Island Conservancy at:

- Central Park
- Denman Point area
- Lindsay Dickson Nature Reserve & Graham Lake
- Old School
- Settlement Lands Homestead Marsh
- Settlement Lands Pickles Marsh
- Valens Brook mouth

Preliminary acoustic analysis identified:

- California Bat Myotis californicus
- Hoary Bat Lasiurus cinereus
- Little Brown Bat *Myotis lucifugus*
- Silver-haired Bat Lasionycteris noctivagans
- Townsends's Big-eared Bat Corynorhinus townsendii
- Western Long-eared Bat Myotis evotis

2000 Mist-netting and early Anabat detector use in 2000, by S. Holroyd Ecosystem Specialist and D. Manley with the BC Ministry of Environment, and bat biologist Vanessa Craig identified the following species:

- Big Brown Bat *Eptesicus fuscus*
- California Myotis *Myotis californicus*
- Hoary Bat Lasiurus cinereus
- Little Brown Myotis *Myotis lucifugus*
- Silver-haired Bat Lasionycteris noctivagans
- Townsends's Big-eared Bat Corynorhinus townsendii
- Yuma Myotis *Myotis yumanensis*

Date	Location	Species Captured	No. bats
July 31 00	Fillongley		0
Aug 1 00	Old School	Little Brown	9
Aug 2 00	Tayless	California Myotis	3
		Little Brown Myotis	6
		Yuma/Little Brown?	1
Aug 3 00	Lone Pine	Townsend's	14 (roost count
			455 bats + pups)
Sept 18	Windy Marsh Farm		0
Sept 19	Pickles Marsh	Little Brown	1
Sept 20	Graham Lk	Little Brown	2
Sept 21	Dr. Pett wetland	Yuma Myotis	2

Table 2. Denman Island mist net bat data, BC Ministry of Environment 2000.

Table 3. Denman Island Anabat accoustic bat data, BC Ministry of Environment 2000.

Date	Island	Location	Туре	Spp. ID w P=0.95	Spp. ID w P=0.90	No. calls
July 31	Denman	Fillongley Park	Stream	Big Brown Silver Myotis spp.	No new spp.	38
Aug 1	Denman	Tayless	Forest pond	Hoary Myotis spp	No new spp.	21
Aug 2	Denman	Tayless	Forest/pasture edge	Myotis spp.	Townsend's BEB	15
Aug 3	Denman	Piercy Rd.	Pasture	Myotis spp.	All spp. id P=0.95	7
Sept 18	Denman	Forsyth	Forest clearing	Myotis spp	All spp. id P=0.95	3
Sept 19	Denman	Pickles Rd	Marsh	Silver Myotis spp.	No new spp.	89 (also Townsend's ID P=0.75
Sept 19	Denman	Denman Rd (CC across from Old School)	Clear-cut	Big Brown Silver Myotis spp.	No new spp.	4
Sept 20	Denman	Reginald Rd	Dry marsh	Big Brown Myotis spp.	No new spp.	4
Sept 20	Denman	Owl Rd	Small road	Myotis spp.	No new spp.	41
Sept 21	Denman		Stream	Myotis spp.	All spp. id P=0.95	1

3.2 Buildings as Bat Habitat

Denman Conservancy Association has stewarded 2 major maternal bats roosts in buildings since the mid 1990's. The Old School building (Marcus Isbister School) and a building on a private farm that has a large Townsend's big-eared bat colony.

3.2.1 Denman's Old School Building - Marcus Isbister School

Denman's Old School building was renovated and occupied by community groups in the early 1990's and a large colony of bats was found occupying the attic. This colony of close to 1000 bats has been maintained, although it was necessary to identify the need and importance of the colony to the public health representatives. Over the years the attic was improved to facilitate the annual removal of bat

guano. First tarps and then plywood was added to the rafter surface. Each fall the attic is checked and the summer's guano is collected. Bats do not occupy the attic in winter. In 2016, a new roof was put on the Old School. As bats had been using holes at the edge of the roof as access points, 4 bat accesses were built and inserted below the remaining old wooden soffits. Also cedar shakes were placed at the new roof vents to facilitate bat-use of these. Bat use of these new soffit or roof-vent accesses is unknown. In the summer of 2017, bats still appeared to be using various small openings in the old wood of the facia and soffit area, particularly at the front of the building. Thus, additional bat-accesses are planned, when the remaining old facia and soffit wood is replaced.





Acoustic recordings for species detection have been collected from the bat colony at the Old School in 2016 and 2017 using the Anabat Walkabout bat detector. Recordings in 2016 were made using an Anabat borrowed from Salt Spring Island Conservancy. In 2017, DCA obtained an Anabat from the Bob Berry Scholarship Fund. These recordings are awaiting species analysis. Visual bat counts have also been done at this site, as noted in section 4.1.

A remote camera was installed in the Old School building and was operational at the beginning of the summer season in 2017. Bat arrival and activities were observed using a portable monitor that received the camera signals and allowed bat viewing both in the building and at the summer market outside the building. This proved to generate considerable public interest and was a great educational tool. The first few bats were seen in the Old School attic on April 23, 2017, many more arrived over the next month..



Figure 5. Bat camera and monitor in Old School attic.

Unfortunately, over time it appeared that the bats were moving further and further down the attic, away from the camera. While the reason for this is unknown, the apparent bat avoidance might have been due to possible high frequency sound emitted from the constant red-night vision light on the camera. In order not to interfere with the maternal colony the camera was turned off. Other camera techniques that would allow as good monitoring but where the camera could be turned on and off from below are being sought.

Denman – Pre-2017 – Old School Bat Data

Over the years various techniques have been used to identify the bats occupying the Old school's attic, including, genetic analysis of guano, mist netting, incidental examination of live bats and acoustic call recording.

Genetic analysis of bat guano, collected in 2013 from the Old School attic, revealed four species using four different locations within this large divided roost space during the summer.

- Big Brown Bat *Eptesicus fuscus*
- Little Brown Bat *Myotis lucifugus*
- Western Long-eared Bat *Myotis evotis*
- Yuma Bat Myotis yumanensis

Also, Mist netting was conducted outside the building in 2000 and again in 2001.

Date	Personnel	Bat Species	
Aug 1 2000	S. Holroyd V. Craig J. Balke	Myotis lucifugus	Little Brown Bat
	D. Manley		
July 26 2001	V. Craig	Myotis lucifugus	Little Brown Bat
	J. Balke	Myotis evotis (Or M. keeni??)	Western Long-eared Bat
	W. Reimer		

 Table 4. Mist netting at Denman's Old School 2000 & 2001.

When the juveniles begin to fly, occasionally bats are found on the windows and doors of the Old School. These bats were identified to species.

Table 5.	Individual Bat identification	at Denman's Old Schoo	l 1995 & 1997.
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Date	Personnel	Bat Species	
July 21 1995	J. Balke	Myotis evotis	Western Long-eared Bat
	H. Holm		
July 11 1997	J. Balke	Myotis lucifugus	Little Brown Bat
	H. Holm		

Acoustic recordings were made in 2016 and 2017 and these are awaiting analysis.

3.2.2 Private Farm Townsend's Big-eared Bat Colony

In 2000 during an area survey of possible Townsend's habitat lead by S. Holroyd from BC Ministry of Environment staff, a 3-sided driving shed on a Denman Island farm was discovered to house BC's largest known maternal roost for Townsend's big-eared bats *Corynorhinus townsendii*. A large, open part of the roof of this shed appeared to house approximately 450 bats. According to the farmer, these bats had been present as long as he could remember and they were not excessively disturbed by his use of the shed. The biologists used a harp trap to capture and examine a sample of the bats. Subsequently this site was monitoring annually by DCA and the owner of the farm is a DCA land

steward. In 2017, the farm was included in the record of BC's annual bat counts, and acoustic recordings, awaiting analysis have been made in 2016 and 2017.



Figure 6. The section of roof space occupied by Townsend's big-eared bat maternal colony.

3.3 Creating Bat Habitat - Bat Houses

Denman and Hornby Islands adopted different strategies for the "bat house" outreach to the community, chiefly due to the timing of the availability of pre-made bat houses. By the time the project organizers confirmed the possible purchase of pre-made bat houses from the Habitat Acquisition Trust in Victoria, the DCA had already purchased lumber for bat house materials. The dual aims of using bat-houses for bat-outreach were both to interest community members in the bats' use of local habitat, and also to increase the amount of available maternal-bat roost-habitat on both islands. Bat house discussions were also used to introduce the issue of "managing bats in a buildings". The gradual elimination on the islands of large roost-potential trees, as well as old sheds and barns, and also the improvement in building-techniques to create well-sealed new structures on the islands, meant that less habitat is accessible for bats to roost in summer. Thus, there is an island-wide need to save remnant old trees and structures, to maintain bats in or on existing buildings while excluding them from human-living space, and when necessary, to use safe exclusion techniques.

Two types of maternal roost bat houses were used. Both are large structures that could house several hundred individual bats. Examples of both the wall-mounted bat house and the "rocket" bat house that is mounted on a free-standing post, are shown in the photos below.

Denman Initially Denman was going to give out materials and then have a bat house "show" of the created bat houses. But in the end, pre-cutting all the wooden pieces for wall-mount bat houses and giving out "kits' for simple assembly was the easiest way to give out bat-house materials. A video was made showing how to assemble a Denman bat house kit and it is available on the DCA web site.

Twenty-four wall-mount "bat house kits" were given away on Denman and have been built. Kit assembly was assisted with a fall workshop. There is still a waiting list for kits and other bat houses have been constructed and are awaiting distribution to suitable properties. DCA also purchased 5 wall mount bat houses and 5 rocket bat houses from HAT and these have been sold. Two of the rocket boxes have been put up as part of a wetland restoration project in the Settlement Lands, a property owned by DCA.

Hornby On Hornby, Conservancy Hornby Island (CHI) purchased 20 bat houses initially and then another 5, both wall-mount and rocket boxes. These were sold for the cost-price. Initially site visits were made to assess each property and the owner, with the advice of the bat biologist, selected a suitable bat-house location. If the landowners required help, the project-hired bat-house assistant came to help put up the bat house. Twenty-two bat houses are up so far on Hornby.



Figure 7. Some Denman wall-mount bat houses from "kits" provided by DCA & a HAT "rocket".



Figure 8. Some Hornby bat houses purchased from HAT and sold to interested residents by CHI.

3.4 Exclusion

In the past, exclusion issues in homes have been discussed on Denman. This year there were four inquiries regarding ways to keep bats out of living quarters or other unwanted spaces, but no actual exclusion processes were assisted by DCA.

4 Annual Bat Count Sites

Visual counts of bats exiting buildings at dusk were conducted at three major sites on Denman and one additional home. These major sites in buildings have long-term maternal colonies and will continue to be part of the annual bat count monitoring in the future. No natural bat-roosts are yet known on Denman.

4.1 Denman's Old School Building

At dusk, bats exit the Denman Old School attic from a variety of sites, so visual counts from the front, as done in 2017, may miss some bats. But since the new roof was applied in 2016, the bats seem to be using the facia and soffits at the front of the building as their primary exits. Four visual counts were conducted during the summer of 2017 as shown in Table 6. In June, 717 bats were counted leaving the front of the building and still more were still heard calling inside the building. By August, the numbers had diminished and it is thought that once the juveniles can fly and hunt at least some of the bats may move to sites closer to local wetlands.

In the fall 2017, guano was again sampled from the main roosting areas within this divided attic and submitted for genetic analysis. Results have not yet been returned.

Date	Time*	Count	Comments
May 30 2017	21:40 - 22:07	693+	Viewed from front of building (are other exits) Several dozen still seen on camera inside
June 24 2017	21:35 - 22:30	717	Viewed from front, note - when too dark to see, still hear bats inside
August 2 2017	21:05 - 21:30	431	Viewed from front
August 24 2017	20:25 - 21:00	198	Viewed from front, termites flying

Table 6. Bat counts 2017 at Denman's Old School building.

4.2 Private Farm - Townsend Big-eared Bat Colony

Since 2005, the Townsend's colony has been counted by daytime observation and photography of the bats in the roof of the attic bays between the rafters. This three-sided driving shed has a 15m-long open side along about 3/4 of the building length. The remaining quarter of the shed length is closed to the outside and has a loft attic, open to the inside of the shed that the bats occupy. This year a visual/photographic count was made as usual and then there were two attempts to do counts of bats exiting through the long open side of the shed at dusk. An estimate of at least 300 bats was made on one exit count. These exit counts were hampered by the difficulty in watching the entire length of the building particularly at low light and the fact that the bats often exited very close to the ground and were hard to see. Also, many of the bats were continually going in and out of the shed throughout the count period. The adult female bats may have felt that their offspring were threatened by the presence of the count-observer(s) and thus the mothers may not have wished to leave the young bats for very long. Also, observers heard numerous bats still in the building after dark in both July and August counts. Counting adult females early in the summer prior to giving birth may improve the latter problem, but getting accurate total counts at this site will be difficult.

 Table 7. Bat counts 2017 at Denman's Townsend's big-eared bat maternal colony.

Date	Time*	Count	Comments
June 14 2017	June 14 2017 day time		Initial visual plus count ears in photos
July 2 2017	21:55 - 22:24	250+	Exit count
August 3 2017	21:30 - 22:05	300+	Exit count



Figure 9. Denman's Townsend's big-eared bats.

4.3 Private Home #1

A private landowner has been counting the maternal bat colony that re-sides each summer behind the facia board on the front of their home since 2013. Two evening exit counts were conducted in 2017.

Date	Time*	Count	Comments
Aug 18 2013	dusk	41	
Aug 3 2014	dusk	59	
Aug 5 2015	dusk	101	
Sept 11 2016	dusk	95	
July 14 2017	21:30 - 22:00	59	
Aug 21 2017	20:35 - 21:10	102+	guano sampled, Anabat recording

Table 8. Private home # 1 Bat colony exit counts.

5 Dead Bats & Disease Testing

5.1 Dead Bats

Three bats were found dead in a building next to Chickadee Lake on Denman in mid May 2017. They were sent for White Nose Disease (WND) tested and all were negative. Six additional dead bats were collected from landowners and frozen in case diagnostic testing was necessary.

 Table 9. Dead bats from Denman tested for White Nose Disease 2017.

ID Number	Species	Location	Date (2017)	Condition when frozen	WLH ID	HISTORY	White Nose Disease Testing
1	Unk	Chickadee Lake	May-22	SI desicated	17-9947	Found dead in building	-'ve
2	Unk	Chickadee Lake	May-22	SI desicated	17-9948	Found dead in building	-'ve
3	Unk	Chickadee Lake	May-22	SI desicated	17-9949	Found dead in building	-'ve

5.2 Live Bat Sampling

During the winter 2017-18, two live bats were swabbed for WND testing and so far one sample of bat fresh bat feces has been collected. All samples have been frozen awaiting submission.

ID Number	Species	Sample	Location	UTM U 10	Date (2017-18)	WLH ID	HISTORY
1	Prob MYCA	swab	SW Denman	371837 5488217	Dec 9 2017		Found in wood pile
2	Prob MYYU	swab	Central Denman	371837 5488217	Jan-23		Found clinging to basement exterior wall by exterior sunken door
3	unk	feces	SE Denman	~ 374551 5495243	Mar-19		Found on step by front door, bat seen

Table 10. Live bat swabs and Spring bat feces.

Dead bats Prior to 2017

In 2016, four dead bats were submitted for WND testing and all were negative.

Table xx. Dead bats Denman & Hornby 2016.

ID Number	Species	Location	UTM U 10	Date	Condition when frozen	WLH ID	HISTORY	White Nose Disease Testing
1	bat	Hornby Is	unknown	July 28 2016	-	16- 8648	Found dead, no exposure	-'ve
2	bat	Denman Is	367961 5491291	July 18 2016	dessicated	16- 8649	Found dead, no exposure	-'ve
3	bats	Denman Is	370945 5488383	Nov 2 2014	dessicated	16- 8650	Found dead, no exposure	-'ve
4	COTO*	Denman Is	372864 5486208	March 21 2016	Good - died previous day	16- 8651	Observed flying during the day, found dead the next day, no exposure	

*COTO Townsend's Big-eared bat

6 Conclusions & The Future

The Denman Hornby Bat Project has achieved its primary goals of raising awareness about bats and of providing additional potential bat habitat on both islands. All islanders have been exposed to some information about bats by seeing, hearing or reading about bats. Bat houses are up all over both islands awaiting their occupants. In addition, the project has reached out with initial bat information to the greater Comox Valley.

The continuing project in 2018-19 will enhance our understanding of various bat species and their habitat on the islands. More bat houses will be created and mounted and the existing houses will be monitored for the numbers and species of their occupants. New bat-house models and possible counting techniques will be tried. Conservation lands will be explored for natural bat habitat, bat species and bat habitat use. Samples of feces, live bat swabs and dead bats will continue to be collected to test for WND in order to check on the spread of WND in the area. Outreach to the building trades, realtors and community members will carry on. Overall, this project will continue to work towards enhancing bat stewardship on Denman and Hornby islands.

Appendix

BATS in Denman Conservancy Association Newsletters 2017-2018

REWSLETTER

P.O. Box 60, Denman Island, B.C. VOR 1TO

May 2017

Home and Garden Tour

The Denman Island Home and Garden Tour is now but a month away. On June 10-11 some of the most expressive and resourceful powers of our island will throw open their gates to invite guests from near and far in to the creative and lush landscapes they have cocreated with their surroundings. On this year's Tour, you will see homes that follow the shape of the landscape, gardens that are manicured to bring out the most elegant aspects of nature and native gardens that just require the gentlest touch.

The 13 spectacular homes and gardens on this year's tour display the full range of partnerships between gardener, builder and nature.

The Home and Garden Tour is a great opportunity to invite your friends and family over to experience the hidden treasures of our island.

Tour goers will be directed to only use Pickles Rd. and Central Rd. as one way roads heading northward from Denman Road. If you live in the area or are passing through, please be aware that there will be more than the usual amount of traffic and that it will be going from Denman Rd. towards Lake Rd.

If you want to volunteer please contact Tour coordinator Emily Guinane at <u>denmanisland.hgt@gmail.com</u> or 1 250 539 8339.

To thank all volunteers and Tour hosts for their hard work an appreciation party will be held after the Tour on Sunday. We look forward to celebrating with you there!

The Home and Garden Tour is an important fundraiser for the Denman Conservancy Association. Tickets are \$20 and are now for sale at Abraxas and the General Store as well as at denmanconservancy.org.

Denman Bats

This year Conservancies on both Denman and Hornby are collaborating in the BC BATS Province-wide Community Bat Conservation Program. So stay tuned for up-coming details – more bat information also can be found on the DCA web-site and by Googling "BC Bats"!

Thanks for the great interest in the DCA's bat housebuilding project. All the necessary materials and other information for the keen house builders will be forthcoming in early June, see below. We will also have some of these bat maternal colony houses for sale, so let us know ASAP (335-2151 or 335-2868) if you'd rather buy one than make one: Wall Mount boxes are \$55 and Stand-alone Rocket Boxes are \$65.

Denman's Old School Bats are now returning! Four species raise their babies in the attic of the Old School building and our new bat cameras are now spying on them:

Basic Bats – an introduction to Denman bats will be held Tuesday May 30th at 7:30 in the DCA room of the Old School. We'll also be able to view (& hear) the activities of the bat colony above us by remote camera, to 'detect' them with the bat-detector and to see bats emerge to hunt if the evening is dry and mild. Genetic studies on bat guano in previous years determined that there are at least four species of bats roosting in the Old School attic. Come and meet some of them! Interest in Denman's bat house-building project has been great! Builders will be able to pick up all the necessary house-building materials Saturday June 3rd at the Old School during the Saturday market, or if necessary they can arrange a separate pick up.



Set NEWSLETTER

P.O. Box 60, Denman Island, B.C. VOR 1TO

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 ecosystemweb. 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

AGM Business Monday 26 February 2018 7.30 pm Back Hall

Membership

A current membership is required in order to vote on DCA society matters. Volunteers will be available before the meeting commences to accept a minimum \$10 donation from those who wish to renew their membership.

Special Resolution by Jackie Hipwell, DCA Co-Chair

It has come to the attention of your Board that the maximum expenditure for an item, package or project that it may approve independently has remained unchanged since the formation of our society in 1991 – more than 25 years ago. To facilitate business without requiring Special Resolutions and, potentially, Special Meetings of the general membership, it is proposed that the limit be increased. The Bylaw sections that relate to this proposed change fall under Part 4 – Proceedings at General Meetings, Section 2.

Copies of this section of the bylaws, including the proposed changes, may be obtained by contacting a Director and will be available at the meeting. The existing bylaws are available on the Denman Conservancy website at:

http://www.denman-conservancy.org/wpcontent/uploads/2012/11/2016Bylaws.pdf

For general information about DCA check our website: www.denmanconservancey.org

Conservancy Room - Old School by Stirling Fraser

The DCA has embarked on a long planned set of improvements to our room in the Old School. After numerous meetings and canvasing many possible flooring and paint options, DCA member de Neen Baldwin generously donated her design talents to the group and a final decision was made in December. In addition to new windows that are being installed this Spring courtesy of the landlord, the DCA has budgeted the funds to repaint and repair the drop ceiling, paint the walls, restore and repaint the original heritage blackboards and install new flooring. The painting is now underway after all the walls were washed and the holes made by generations of students filled and sanded. It already looks better, but Spring 2018 will see an entirely new look to the DCA's home and will include, we hope, permanent static displays showcasing our work and the island's ecosystems.

Get in touch with us!

DCA Newsletter February 2018

Denman's Gone Batty

By Jenny Balke



Bat at the Old School by Dennis Forsyth

On Denman, over 30 new maternal bat houses will await the spring return of the bat-Mums. Many thanks to all the Denman bat house builders. Special thanks to David Scruton for recently hosting a pleasant and productive evening of bat-house-kit-assembly. Bat-housematerials-chief, Stirling Fraser and his team will be preparing more bat house kits for those on the waiting list...we haven't forgotten! In April, DCA will provide a planning session for discovering, counting and identifying bats in these new houses.

The Denman Hornby Bat Project is part of BC's Community Bat Program. More details about the project are on the DCA web site. Most important for the Bat world at this time is to send off any dead bats for White Nose Disease (WND) testing and also to swab the wings of any cooperative live bats, also for WND testing. So please call 335-2151 if you have an available bat, dead or alive.

No Bloom On Broom Campaign!

This spring, DCA volunteers are invited to help tackle the broom-issue around the Settlement Lands' woodland meadows. The aim is to strive for no broom blooms and therefore no additional broom seeds in 2018.

Volunteers may take on their own small areas and at their leisure clear them of any of the small broom plants. The areas are marked awaiting their "No Bloom on Broom" champion. Assistance with any larger regrowth of broom plants will be available. Call Erika for more details. All Settlement Lands users are invited to carry secaters and cut off any broom blooms.

P.O. Box 60 Denman Island BC VOR 1TO

www.denmanconservancy.org

DCA Activities are governed by our Board of Directors Generally, meetings are held on the 3rd Monday of each month 7:30 p.m. Old School Centre, 5901 Denman Rd. (DCA Room) General Inquiries & Membership: info@denmanconservancy.org Land Manager: Erika Bland @DConservancy





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