

Bat Health Surveillance in BC
July 2016 Update of the “What to do if you find a sick or dead bat” protocol

We are now outside the WNS Surveillance window (1st June to 31st Oct). We are still interested in dead bats outside this window but these can be collected in batches (e.g., wait until you have about 6 dead bats) before being shipped (follow attached protocol). Lately we seem to be getting many calls about significant numbers of dead bats – if you are making a trip to check out these mortality events, please collect all the carcasses. When visiting a site with multiple dead bats and/or desiccated bats, please collect all the carcasses as per protocol. The decision on which bats to use of necropsy and which bat bodies to archive can be made at the lab by Dr. Glenna McGregor or at Royal BC Museum.

Please note precautions concerning rabies. If there has been human and domestic animal contact, rabies testing is still prioritized over WNS sample collection.

Dr. Caeley Thacker (250) 751-3219; Caeley.Thacker@gov.bc.ca will also be able to help with your sample collection and shipping questions. As of August 2nd, Cait Nelson will be back and will be your primary contact Cait.Nelson@gov.bc.ca. **Dr. Glenna McGregor at the Animal Health Labs in Abbotsford** (1767 Angus Campbell Road, Abbotsford, BC V3G 2M3) does all our bat health testing. Dr. Helen Schwantje and Dr. Purnima Govindarajulu can always be contacted if you have questions at any time. Dr. Schwantje will be on medial leave from 4th August to sometime in October, and Dr. Govindarajulu will not be available for all of August.

The WNS surveillance window in B.C. is to test bat mortalities between 1st Nov and 31st May. So any dead or sick bats detected during this “WNS surveillance window” need to be reported to the BC Wildlife Health program and provincial biologist immediately, and the lab contacted so the animal can be tested as soon as possible.

Bat Health Surveillance in BC - 2016

This document is intended for use by Community Bat Program Coordinators and wildlife biologists.

What to do if you find a bat

Bats are the only reservoir for [rabies](#) in BC so it is important to take precautions when encountering a bat. If you handle bats a rabies vaccine is strongly advised. Bats prefer to rest or roost hanging upside down and above the ground, so if you find a bat on the ground, you can suspect the bat is dehydrated, injured or ill. Avoid handling bats. If handling of a *live* bat is necessary, wear thick leather gloves that a bat cannot bite through or scoop the bat into a container without touching it. Cover your hands with gloves or plastic bags to handle *dead* bats.

If there is any concern at all about the risk of rabies to humans, pets or domestic animals **always** advise people to seek professional advice from their doctors, public health authority, and/or veterinarian, who will then be responsible for risk management (i.e. vaccination, submitting the bat for rabies testing etc.). Bat Program Coordinators should never assume this responsibility due to liability concerns.

Proceed through the following list for guidance when you encounter a live or dead bat and need to make a decision on steps to take.

- 1. Has a person been in “close contact” with a bat that was alive or recently dead (not completely desiccated) (e.g. handled with bare hands, was bitten, scratched, or had contact with an open wound on the person)? Or is the person very concerned about the health implications even if you perceive risk to be low?** If there is any doubt of what close contact is, presume **YES** as a precaution because rabies is considered fatal if not treated.
YES **Go to 2.**
NO..... **Go to 3.**
- 2. Advise the person to immediately contact their physician and/or their local public health office** (Contact information at the end of the document) and they will decide if post-exposure prophylaxis (i.e. rabies vaccination) is required and if the bat should be submitted for testing for rabies. If the bat is to be submitted for testing, the public health office will coordinate the submitting of the bat for [rabies](#) testing directly to CFIA (Please see BCCDC Rabies Guidelines May 2015 document for more details). Close contact as described above usually requires human rabies post-exposure treatment and may require testing the bat for rabies as soon as possible. **Go to Step 5 to complete incident report or direction on how to proceed if bat is not submitted for testing to CFIA.**
- 3. Has a domestic animal (cat, dog, or livestock) been in contact (bitten, scratched) with bat? Or is the pet owner concerned about the risk of rabies even if you perceive the risk to be low?**
YES **Go to 4.**
NO..... **Go to 5.**
- 4. The animal owner should be advised to immediately consult with their private veterinarian. The vet is responsible for risk assessment and may contact the Public Health Veterinarian at the BC Centre for Disease Control at 604-829-2110 (<http://www.bccdc.ca/health-info/diseases-conditions/rabies>) for support.** They will decide what risk management is required. Risk of rabies will be determined partly on the vaccination status of the animal as well as other aspects of the situation. Close contact as described above usually requires revaccination, and sometimes rapid testing of the bat for rabies or potential quarantine of the domestic animal. If the bat is to be submitted for rabies testing, the private veterinarian will submit the bat directly to CFIA (Please see BCCDC Rabies Guidelines for Veterinarians 2015 document for more details). Precautionary action is almost always advised as rabies is considered fatal if not treated. **Go to Step 5 to complete incident report or direction on how to proceed if bat is not submitted for testing to CFIA.**
- 5. Proceed to 6 for what to do with a bat if it has not been submitted for testing in the steps above.** If the bat has been submitted for testing as above, please document the incident (date, location where found, circumstance, and species of bat if known) with date and contact person/lab where the bat was submitted for testing.

6. Is the bat dead?

- YES **Go to 11**
NO **Go to 7**

7. Is this bat in a building and clearly capable of flight?

- YES **Conduct a safe removal of the bat from the house.**
<http://www.batcon.org/index.php/resources/for-specific-issues/bats-in-buildings/there-s-a-bat-in-my-house>
NO **Go to 8**

8. Is the bat visibly injured?

- YES **Go to 10**
NO **Go to 9**

9. Is this bat found during winter, or early spring?

- YES **Go to 11**
NO **Follow instructions below**

- Avoid touching the bat, and use gloves even if you have rabies pre-exposure vaccination. If you must touch the bat, use thick leather gloves.
- Observe for injuries and go to step 10 if injuries are found. If no injuries are found, then pick up or scoop with a small trowel and place bat in the shade, on a tree trunk or wall, out of sight and where it won't be accessed by people, pets or predators. If possible place the bat near a shallow dish of open water, because in the summer months bats may just be dehydrated. A small partially closed box on its side placed on a tree or wall, with a small dish of water could provide shade and drinking opportunity, and the bat can easily leave when it is ready to fly. Bats have trouble climbing cardboard, so tipping the box on its side allows it to leave the box without having to climb.
- Place the bat at least 6 feet off of the ground as most bats cannot gain flight when taking off from the ground.
- If you cannot find an appropriate box, another option is to put the bat in an open pillow case and tie a corner of the pillow case to a trunk/wall allowing it to climb up and fly away when ready. The pillow case gives the bat a place to hide and provides shade, and protects it from predators. If bat has not flown away within a few hours after sundown, then proceed to 10.

10. Contact the Wildlife Rehabilitation Network of BC at <http://www.wrnbc.org/> or see below for their members that can care for the bat. The bat may require euthanasia and some veterinarians may assist. For further advice call the BC Wildlife Veterinarian, Helen Schwantje at 250-751-3234 or the other contacts below.

If the bat is euthanized, and you are able to obtain the dead bat follow instructions for storage and shipping below described in Step 11 below. The Wildlife Rehabilitators should have a copy of this protocol but it might be prudent to check with them again.

11. Is rabies or white nose syndrome suspected?

WNS is suspected if a sick or dead bat is found in the winter or early spring. The WNS Surveillance Window is between 1st November and 31st May. It is the only time that the disease is thought to be active and visible. Bats tested in the summer almost always test negative even if they may have suffered from the disease in the winter, and signs such as holes in the wings persist. Visible signs of WNS are a white powdery substance present on the nose or wings and/or tears or holes in the wings. In many cases in early spring, no white substance is observed. The wings might look sticky and rough. See more information below.

Rabies is suspected if the bat is on the ground, is acting abnormally (dopey or aggressive), and has no obvious injuries. See more information on BCCDC website <http://www.bccdc.ca/health-info/diseases-conditions/rabies>.

YES

If the bat is alive get the bat to a rehab facility as soon as possible to decide if the bat should be euthanized or can be rehabbed for release. If there is no rehab facility in the vicinity, then a private vet may need to make this decision. If necessary, contact Helen Schwantje, Caeley Thacker, and/or Purnima Govindarajulu to provide further guidance on a case by case basis.

NO.....

In the WNS season (Nov 1st to May 31st) contact the BC Wildlife Health Program and Dr. McGregor and ship immediately. Outside the “WNS season” (June 1st to Oct 31st) follow instructions for storage and/or shipping below.

Storage and shipping may be a challenge for the general public. So Community Bat Coordinators and rehabilitators are urged to collect and consolidate samples for shipping to the BC Wildlife Health Biologist.

- Always handle dead bats with gloves (disposable vinyl or nitrile gloves are ideal) or a plastic bag over your hand.
- Wrap the dead bat in a couple of paper towels to provide cushioning and to retain moisture.
- Place the wrapped bat in a Ziploc bag and that in another Ziploc bag (double bag) as a precaution.
- Note from Glenna about fresh samples (but given the funding constraints this might be possible only during the WNS season): “It would be MUCH easier for me if we could get bats as fresh as possible. I’d really like to look into the high prevalence of pneumonia we’re seeing in the bats submitted so far and it is difficult to assess lungs microscopically, particularly for viral disease, if they’ve been frozen. If they can get them to the lab within 24 to 48 hours of death it would be ideal if they were refrigerated but not frozen and packaged on ice to keep them cool. If it’s a weekend or we can’t get the bat within 24 hours, freezing is best”.
- Fill out the Animal Health Lab Wildlife Submission Form (PDF form attached or from Wildlife Health Biologist or from to http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/animal-health/ahcform_wildlife.pdf). Note that the Submitter in this form is Helen Schwantje but put your name and details under Finder. Include as much information as possible. If you are unsure about species identification, please indicate it in the form so that the species identification can be verified at the lab or Royal BC Museum. Include the filled out form in a Ziploc bag attached outside of the bag with the bat making sure that the bag and form do not become separated during shipping.
- Contact the BC Wildlife Health Biologist (250-751-3219) regarding the bat and **to get a Wildlife Health Identification Number (WLH-ID) assigned to the bat**. In the WNS season, if the landowner/private citizen who found the incidental mortality is willing to package and ship the carcass (ask questions to make sure it is a sample that is of interest, that the person will take the needed precautions during packaging and shipping, and that they will be able to fill out the metadata form properly), then you can call Dr. Caeley Thacker (250) 751-3219; Caeley.Thacker@gov.bc.ca (Cait Nelson, Cait.Nelson@gov.bc.ca after 2nd August, 2016) to get the courier account number that will cover shipping charges. Outside the WNS season, collect and batch ship about six or more carcasses at a time.
- Label each bag with the Wildlife Health ID number, date, submitter, contact and location.

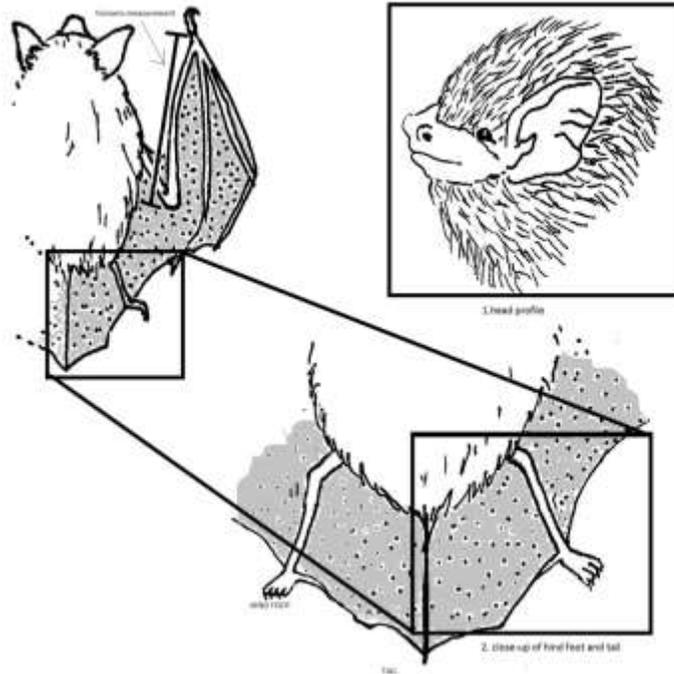
- Between 1st Nov to 31st May, it might be easiest to contact **Dr. Glenna McGregor directly** (Glenna.McGregor@gov.bc.ca, 604 556-3003, 1767 Angus Campbell Road, Abbotsford, BC V3G 2M3). Still ensure that you get a Wildlife Health ID number associated with the sample as that is the only way that the Wildlife Program can track the sample, and get results back to the landowner if necessary.
- After the priority WMS sample collection period from 1st Nov to 31st May, it may be best to collect a batch of specimens (6 or more) before shipping them.
- Always ship the bats in a proper hard-sided cooler if possible and you must ship with commercial ice packs. Styrofoam containers are OK if thick and enclosed in a cardboard box. Styrofoam boxes and ice packs may be available free from pharmacies, veterinarians and some grocery stores as they have supplies shipped to them.
- During the priority sample collection period (November until the end of May), samples could be shipped directly to Dr. Glenna McGregor. For shipping instructions: <http://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/animal-health/pathology-necropsy>
- A FLNRO regional office may be able to help with packaging and shipping. All bats that have not been in human or domestic animal contact can be sent to the Nanaimo Regional office c/o Helen Schwantje (250-751-3234), helen.schwantje@gov.bc.ca. **Please contact Helen to ensure that the office knows that a shipment is arriving on ice and that it needs to go into the freezer, in case Helen is away. Please note that Helen is away on medical leave from August to mid-October. Cait Nelson, Cait.Nelson@gov.bc.ca will be your primary contact during this time.**
- **In some cases, Helen may advise direct shipping to the Animal Health Lab (Dr. Glenna McGregor, Glenna.McGregor@gov.bc.ca, 604 556-3003)**

Desiccated bats may not need to be frozen but as a rule please freeze all of them. For now, please collect all bat carcasses including desiccated bats. WNS PCR can be done on desiccated carcasses and so can population genetics studies. We can always discard them later if we find that we have too many samples (not likely).

White Nose Syndrome:

If you find a dead bat and suspect White-nose Syndrome (WNS), please contact the people below for additional information or access the [Fact Sheet](#). At a minimum, please do the following:

- a. Photograph the scene, and the bat(s). Take an overall photo plus close ups as below if you are not able to collect specimens (use necessary precautions while handling bats; and ensure that there is a millimeter scale in the photographs).



- b. If you are able to collect specimens, follow instruction under Step 11 above for collection, packaging and shipping.

If you find a live bat with overt signs of WNS and it is in the WNS vulnerability window (1st Nov to 31st May), and you have current rabies vaccination, document the scene as above and you may collect the bat for euthanasia by a veterinarian or follow the Standard Operating Procedure for bat euthanasia (www.gov.bc.ca/wildlifehealth). However, if at all possible, contact any of the people mentioned in this protocol for guidance before taking this step.

Please contact one of the following people for advice, or before sending shipments:

Contacts		
Helen Schwantje Phone: (250) 751-3234 Email: Helen.Schwantje@gov.bc.ca (away August-mid October)	Purnima Govindarajulu Phone: (250) 387-9755 Email: Purnima.Govindarajulu@gov.bc.ca (away all of August)	Caeley Thacker (Cait Nelson after 2 nd August) Wildlife Health Biologist Phone: (250) 751-3219 Email: Caeley.Thacker@gov.bc.ca (Cait.Nelson@gov.bc.ca)

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CONTACT INFORMATION FOR PUBLIC HEALTH AGENCIES OF BC

Agency	Position	Contact
Fraser Health Authority	Central Communicable Disease Intake Line - Health Protection	604-507-5478 and 1-866-990-9941
Fraser Health Authority	Medical Health Officer (MHO) on call after hours	604-527-4806
Interior Health Authority	Communicable Disease Unit	1-866-778-7736
Interior Health Authority	MHO on call after hours	1-866-457-5648
Island Health Authority	South Island Communicable Disease Hub	1-866-665-6626
Island Health Authority	Central Island Communicable Disease Hub	1-866-770-7798
Island Health Authority	North Island Communicable Disease Hub	1-877-887-8835
Island Health Authority	MHO on call after hours	1-800-204-6166
Northern Health Authority	Northeast Manager	250-719-6500
Northern Health Authority	Northern Interior Manager	250-565-2150
Northern Health Authority	Northwest Manager	250-631-4249
Northern Health Authority	MHO on call after hours	250-565-2000
Vancouver Coastal Health	Communicable Disease Control	604-675-3900
Vancouver Coastal Health	MHO on call after hours	604-527-4893
British Columbia Centre for Disease Control (BCCDC)	Physician epidemiologist lead on rabies	604-707-2558
BCCDC	Public Health Veterinarian	604-829-2110
BCCDC	Physician on call during and after hours	604-312-9220

Bat Rescue/Rehabilitation Centres in BC, 2015

SPCA 1 855 622 7722; Provincial Call Centre, would re-direct call to nearest facility.

Facility	Community Bat Project Region	Address	Phone/Email	Accept bats?	Other
Wild ARC	Victoria	1020 Malloch Rd, Victoria	250.478.9453 info@wildarc.com	yes	
Mountaineer Avian Rescue Society		6817 Headquarters Rd, Courtenay	250.337.2021 mars@wingtips.org	yes	
Island Wildlife Natural Care Centre	Salt Spring Island	322 Langs Rd, Salt Spring Island	250.537.0777 iwncc@aol.com	yes	Provide first aid care then transfer to Wild Arc
Wildlife Rescue Assoc. of BC	South Coast Bat Action Team	5216 Glencarin Dr, Burnaby	604.526.7275 info@wildliferescue.ca	yes	
Gibsons Wildlife Rehabilitation Centre	Sunshine Coast	1211 Carmen Rd, Gibsons	604.886.4989 gwrc@sunshine.net	yes	
BC Wildlife Park Wildlife Rehabilitation Centre	Okanagan/Thomp son	9077 Dallas Drive, Kamloops	250.573.3242 ex. 230	yes	
Second Chance Wildlife Rescue		1845 Kral Rd, Quesnel	250.747.0275 zachariastammy@yahoo.com	yes	
North Island Wildlife Recovery Assoc.				no	
Gabriola Rescue of Wildlife Society				no	Only handles animals found on the island.
Pacific Northwest Raptors Ltd				no	
Critter Care Wildlife Society				no	
Elizabeth's Wildlife Centre Society				no	
Northern Lights Wildlife Society				no	
South Okanagan Rehabilitation Centre for Owls				no	
Focus Wildlife Canada				no	
Prince Rupert Wildlife Rehabilitation Shelter					Cannot get in touch with anyone
Hillspring Wildlife Rehabilitation	-				No longer in service
Creature Comfort Wildlife Care	-				No longer in service
Janet Gifford-Brown					Number not in service