

Skunks

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
To: PAHB Virology AF:EX <Virology@gov.bc.ca>, Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>, Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>
Sent: March 2, 2023 9:48:52 AM PST
Hey,

I know we're trying to send wildlife AI samples just to BCCDC, but any chance you could run a couple skunks today? They are from a bunch of skunks in Richmond that there are several news articles about them "being poisoned". Based on gross lesions AI is likely, but BCCDC can't run until late next week and I'd like to confirm sooner than later as CritterCare and Caeley are getting quite a lot of calls from the public and it will really affect their advice. Case 23-2789. Swabs were already put through for SARS-CoV-2. There isn't a real rush, but would be ideal if we could get results sooner than next Friday. Is that possible??

Here is one of the articles if you are interested. There have been 20+ more cases brought to CritterCare since.
<https://www.theglobeandmail.com/canada/british-columbia/article-seven-skunk-deaths-prompt-poison-warning-in-richmond-bc/#:~:text=Seven%20skunks%20showing%20signs%20of,9%20and%2016.>

Thanks!
Glenna

Glenna McGregor, DVM, MSc, Dipl. ACVP
Veterinary Pathologist
Animal Health Centre
BC Ministry of Agriculture
Abbotsford, BC
V3G 2M3
604-556-3003
1-800-661-9903 (BC)

RE: Skunks

From: Joseph, Tomy AF:EX
To: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>, Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>, Bidulka, Julie AF:EX <Julie.Bidulka@gov.bc.ca>, Scouras, Andrea AF:EX <Andrea.Scouras@gov.bc.ca>, Knowles, Daniel AF:EX <Daniel.Knowles@gov.bc.ca>, Taylor, Joanne AF:EX <Joanne.Taylor@gov.bc.ca>
Cc: PAHB Virology AF:EX <Virology@gov.bc.ca>
Sent: March 2, 2023 10:53:37 AM PST

Thanks Glenna.

MD:

Please go ahead and do AI PCR on these skunk samples, maybe run them separate.

Thank you,

Tomy Joseph, DVM, M.Sc., Ph.D

Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>

Sent: Thursday, March 2, 2023 9:49 AM

To: PAHB Virology AF:EX <Virology@gov.bc.ca>; Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>; Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>

Subject: Skunks

Hey,

I know we're trying to send wildlife AI samples just to BCCDC, but any chance you could run a couple skunks today? They are from a bunch of skunks in Richmond that there are several news articles about them "being poisoned". Based on gross lesions AI is likely, but BCCDC can't run until late next week and I'd like to confirm sooner than later as CritterCare and Caeley are getting quite a lot of calls from the public and it will really affect their advice. Case 23-2789. Swabs were already put through for SARS-CoV-2. There isn't a real rush, but would be ideal if we could get results sooner than next Friday. Is that possible??

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Abbotsford, BC
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Influenza A in Skunks in Richmond

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>, Himsworth, Chelsea AF:EX <Chelsea.Himsworth@gov.bc.ca>, Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>, Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>, Thacker, Caeley FOR:EX <Caeley.Thacker@gov.bc.ca>
Sent: March 2, 2023 3:16:10 PM PST
Hi everyone,

I'm not sure if you've seen any of the many news articles out there about a recent suspected skunk poisoning spree in Richmond (<https://www.theglobeandmail.com/canada/british-columbia/article-seven-skunk-deaths-prompt-poison-warning-in-richmond-bc/#:~:text=Seven%20skunks%20showing%20signs%20of,9%20and%2016>) with 20+ dead and dying neurologic skunks presented to CritterCare from Vancouver and Richmond in the last couple weeks. We got two skunks submitted Tuesday, one from Richmond and one from Vancouver (23-2789 A and B). Both are positive on nasopharyngeal swabs for influenza A and have a severe necrosuppurative interstitial pneumonia, hepatitis, nephritis, and adrenalitis (brain histo still pending), which is consistent with the lesions previously seen in skunks and foxes with the recent H5N1.

H5 and H1 typing is pending and will hopefully be completed tonight or tomorrow morning.

CritterCare will be dropping off 6 more skunks for testing tomorrow (they are not aware of these results yet), but they are coming frozen and probably can't be tested until Wednesday with the strategy meeting closure.

With the large number of skunks affected and lack of apparent infected-bird exposure I wonder if we should be considering skunk-to-skunk spread. I have a separate set of swabs saved for BCCDC (they weren't collected in time to be sent this week) in the hopes that they'll be willing to do some more genotyping (Chelsea??).

Thanks,
Glenna

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Veterinary Pathologist
Animal Health Centre
BC Ministry of Agriculture
Abbotsford, BC
V3G 2M3
604-556-3003
1-800-661-9903 (BC)

Skunk flu

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>, Joseph, Tomy AF:EX
<Tomy.Joseph@gov.bc.ca>
Cc: Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Sent: March 3, 2023 8:58:48 AM PST
Hi Theresa,

Those skunks were H5 positive in all samples. All were negative for H1N1. The interim report is attached. Please let me know if there is anything further you need me to do re. reporting to CFIA or public health.

Thanks,
Glenna

Glenna McGregor, DVM, MSc, Dipl. ACVP
Veterinary Pathologist
Animal Health Centre
BC Ministry of Agriculture
Abbotsford, BC
V3G 2M3
604-556-3003
1-800-661-9903 (BC)

RE: Skunk flu

From: Joseph, Tomy AF:EX
To: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>, Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>
Sent: March 3, 2023 8:59:57 AM PST

Thanks Glenna. Please include Ash in the emails as well.

Tomy Joseph, DVM, M.Sc., Ph.D
Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
Sent: Friday, March 3, 2023 8:59 AM
To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>; Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>
Cc: Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Subject: Skunk flu

Hi Theresa,

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Abbotsford, BC
V3G 2M3
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1-800-661-9903 (BC)

RE: Influenza A in Skunks in Richmond - H5

From: Joseph, Tomy AF:EX
To: Austin, Joyce AF:EX <Joyce.Austin@gov.bc.ca>
Sent: March 3, 2023 9:03:12 AM PST

Hi Joyce,

FYI. Those skunks from Richmond tested positive for H5 as well. Samples will be forwarded to the NCFAD next week and the BCCDC will do the sequencing as well.

Thanks,

Tomy Joseph, DVM, M.Sc., Ph.D
Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

From: Joseph, Tomy AF:EX
Sent: Thursday, March 2, 2023 3:22 PM
To: Austin, Joyce AF:EX <Joyce.Austin@gov.bc.ca>
Subject: FW: Influenza A in Skunks in Richmond

Hi Joyce, for your information.

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
Sent: Thursday, March 2, 2023 3:16 PM
To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>; Himsworth, Chelsea AF:EX <Chelsea.Himsworth@gov.bc.ca>; Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>; Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>; Thacker, Caeley FOR:EX <Caeley.Thacker@gov.bc.ca>
Subject: Influenza A in Skunks in Richmond

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BC Ministry of Agriculture
Abbotsford, BC

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604-556-3003
1-800-661-9903 (BC)

FW: Skunk flu - 23-2789

From: Joseph, Tomy AF:EX
To: PAHB Virology AF:EX <Virology@gov.bc.ca>
Cc: Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>, Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Sent: March 3, 2023 9:10:00 AM PST
Attachments: 232789-2613985.pdf
Please package the skunk samples, both nasal and rectal swabs, for the CFIA pickup on Wed next week.
Thank you,

Tomy Joseph, DVM, M.Sc., Ph.D
Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
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To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>; Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>
Cc: Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Subject: Skunk flu

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Veterinary Pathologist
Animal Health Centre
BC Ministry of Agriculture
Abbotsford, BC
V3G 2M3
604-556-3003
1-800-661-9903 (BC)

AHC case 23-2789 -Skunks - H5

From: Joseph, Tomy AF:EX
To: Hooper-McGrevy, Kathleen (CFIA/ACIA) <kathleen.hooper-mcgrevy@inspection.gc.ca>, McIsaac, Alex (CFIA/ACIA) <alex.mcisaac@inspection.gc.ca>, abbotsfordanimalhealth@inspection.gc.ca, Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>
Sent: March 3, 2023 9:50:51 AM PST
Attachments: 23-2789-submission form.pdf, 23-2789_Results.pdf

Hi all,
Two skunks (1 from Vancouver and 1 from Richmond, BC) submitted by the Critter Care Wildlife Society tested positive by influenza A matrix PCR and H5 PCR tests. Please see attached VADDs report for details. We will be forwarding samples to the NCFAD next week for confirmatory testing and sequencing.
Thank you,

Tomy Joseph, DVM, M.Sc., Ph.D
Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

Mammalian Submission Form

ANIMAL HEALTH CENTRE



Ministry of
Agriculture
and Food

Ministry of Agriculture and Food
1767 Angus Campbell Road Abbotsford, BC V3G 2M3
604-556-3003 1-800-661-9903
Fax: 604-556-3010 Email: PAHB@gov.bc.ca

AAVLD Accredited Laboratory

For AHC use only

Case #/Coord: 23-2789 G/M
Entered By: W/B Date: 2-27-23
Verified By: W/B Date: Feb 28/23
Sent time: 3:20 PM: V SLAB:

Please fill out form as completely as possible to avoid testing delays.

Ensure all required information (indicated by *) is completed. Samples with incomplete forms will not be tested.

Submitted By: <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Vet Clinic <input type="checkbox"/> Other (fill out info →)	Submitter and/or billing information:	
Reports To: <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Vet Clinic <input type="checkbox"/> Other (fill out info →)	Name: _____	
Bill To: <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Vet Clinic <input type="checkbox"/> Other (fill out info →)	Address: _____	
<i>† Reports will be sent by email (or fax) to each of the parties indicated above. Preliminary reports will be sent to Vet Clinic unless otherwise specified.</i>	City: _____ Postal Code: _____	
Client Reference Number: _____	Phone: _____	
Insurance Claim? <input type="checkbox"/> Yes Possible Litigation? <input type="checkbox"/> Yes	Email (or Fax): _____	
*Owner: <u>Critter Care Wildlife Society</u>	Veterinarian: _____	
Farm Name: _____	Vet Clinic: _____	
*Address: <u>481 216 Street</u>	Address: _____	
*City: <u>Langley</u> *Postal Code: <u>V2Z1R6</u>	City: _____ Postal Code: _____	
*Phone: <u>6045302064</u>	Phone: _____	
Email (or Fax): <u>Caeley Thacker, crittercare1@shaw.ca, crittercare5@shaw.ca</u>	Email (or Fax): _____	
*Species: <u>Skunk</u> *Breed: _____ *Age: <u>Adult</u> indicate units <input type="checkbox"/> D <input type="checkbox"/> W <input type="checkbox"/> M <input type="checkbox"/> Y		
*Sex <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> F <input type="checkbox"/> M/N <input type="checkbox"/> F/S		
Animal ID/Name: _____ Tattoo/Tag No: _____ CCIA Tag No: _____		
No. Submitted Dead: <u>2</u> Date Animal(s) Died: <u>Feb. 16, Feb. 26</u>		

History

Please concisely describe the circumstances surrounding the illness or death in the submitted animal(s).

(i.e. Describe clinical signs, date of onset, housing, production level, treatments given, etc.):

We have been experiencing a large volume of calls from Vancouver and Richmond describing adult skunks in distress. They are all unable to walk properly, or at all. They come in to the centre seizing, writhing, and sometimes excessively salivating, though not consistently. Most of the skunks are found laying supine or lateral recumbent with their limbs outstretched. Pupils are non-reactive and are the size of pin-pricks. The skunks seem to be in a stupor which cannot be reversed and do not react to touch, sound, or light. Their symptoms are consistent with poisoning and many callers have found black rat boxes or rat poison pellets near the skunks. All of the some 20 skunks the centre has received have either been euthanized or dead on arrival or died in care, regardless of the treatment given, which includes administration of vitamin K injection IM, administration of charcoal PO, and shock fluids SQ.

#44- Euthanized February 16th, Adult M, Richmond

#62- Euthanized February 26th, Adult M, Vancouver

Condition suspected: Poisoning Related previous case(s) Animal Health Centre number(s): _____***Specimen(s) Submitted:**

Indicate number of specimens:	Whole Animal <input checked="" type="checkbox"/> Blood _____ Serum _____ Fetus _____ Placenta _____ Feces _____ Urine _____ Swabs _____ Milk _____ Other _____	Date Collected: _____
Fresh Tissues:	Brain _____ Heart _____ Lung _____ Kidney _____ Placenta _____ Muscle _____ Stomach _____ Intestine _____ Liver _____ Spleen _____ Other _____	Date Collected: _____
Fixed Tissues:	Brain _____ Heart _____ Lung _____ Kidney _____ Placenta _____ Muscle _____ Stomach _____ Intestine _____ Liver _____ Spleen _____ Other _____	Date Collected: _____

Mammalian Submission Form

23-2789

Presenting Complaint:

<input type="checkbox"/> Abortion	<input type="checkbox"/> Diarrhea/Enteric	<input type="checkbox"/> Musculoskeletal	<input type="checkbox"/> Neurological	<input type="checkbox"/> Respiratory	<input type="checkbox"/> Neoplasia
<input type="checkbox"/> Sudden Death	<input type="checkbox"/> Unthriftiness	<input type="checkbox"/> Urinary	<input type="checkbox"/> Reproductive	<input checked="" type="checkbox"/> Other (Please specify in History section)	
Treatments: <input type="checkbox"/> None <input type="checkbox"/> Antibiotics <input type="checkbox"/> Fluids <input type="checkbox"/> Anti-inflammatories <input type="checkbox"/> Other (Please specify in History section)					
Vaccinated? <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes Specify: _____					
Euthanized? <input type="checkbox"/> No <input type="checkbox"/> Yes Specify Method: _____					

Additional Information (please include as much information as possible if applicable)

No. in Group: _____	No. (or %) Sick: _____	No. (or %) Dead: ~20	Duration of Illness: _____
Cattle: <input type="checkbox"/> Dairy <input type="checkbox"/> Cow/Calf <input type="checkbox"/> Veal <input type="checkbox"/> Feedlot			
Swine: <input type="checkbox"/> Farrow <input type="checkbox"/> Nursery <input type="checkbox"/> Weaner <input type="checkbox"/> Grower <input type="checkbox"/> Feeder			
Horse: <input type="checkbox"/> Racehorse <input type="checkbox"/> Pleasure			
Ration Type: _____ Describe: _____			

Services Requested:For a full list of tests and fees please visit <http://www.gov.bc.ca/animalhealthcentre>

<input checked="" type="checkbox"/> Post Mortem examination <u>add</u> <input type="checkbox"/> Neurologic examination (Spinal cord) <u>or</u> <input type="checkbox"/> Necropsy Post Mortem Diagnostic Package (On tissues for necropsies conducted outside of the AHC)	
<input type="checkbox"/> Private Cremation Requested Subject to pathologist approval, remains may be released to a licensed crematorium (additional fees apply). Requires completion of form FPM-040 at time of submission: Release of Remains for Cremation	
Serology: <input type="checkbox"/> Johne's Disease <input type="checkbox"/> B LV - Bovine Leukemia Virus <input type="checkbox"/> CAE - Caprine Arthritis Encephalitis <input type="checkbox"/> S. Dublin <input type="checkbox"/> C. difficile toxins A & B <input type="checkbox"/> Neospora caninum <input type="checkbox"/> OPP - Ovine Progressive Pneumonia <input type="checkbox"/> Q fever - Coxiella burnetii <input type="checkbox"/> Other Serology (specify) _____	
Electron Microscopy:	Parasitology: <input type="checkbox"/> Fecal Floatation <input type="checkbox"/> Lungworm (Baermann) <input type="checkbox"/> Fecal Egg Count (Modified McMaster's)
Virology:	Histopathology: <input type="checkbox"/>
Molecular Diagnostics (PCR):	Bacteriology: <input type="checkbox"/> Aerobic culture only <input type="checkbox"/> Fungal culture only <input type="checkbox"/> Aerobic culture and sensitivity <input type="checkbox"/> Clostridial FAT <input type="checkbox"/> Anaerobic culture only <input type="checkbox"/> Strep equi culture/PCR <input type="checkbox"/> Salmonella culture <input type="checkbox"/> Strep suis culture <input type="checkbox"/> Milk culture <input type="checkbox"/> Listeria monocytogenes isolation <input type="checkbox"/> Other _____
Other (specify):	
<input type="checkbox"/> Calf Scours Package (Only applicable for calves <14 days of age.) Culture & Sensitivity, Salmonella, E. coli, Cryptosporidium spp. direct fecal smear, PCR for Rotavirus & Coronavirus	

☒ **Include additional tests at pathologist's discretion** (additional fees may apply).

Specimens submitted become the property of the AHC and are cremated on site following testing (unless arrangements for a private cremation are made with a licenced crematorium). Ashes cannot be returned. Information related to food-producing animal testing may be used by the Ministry of Agriculture for the purpose of summarized statistical surveillance of production animal health in BC. Personal details will not be disclosed, in accordance with the Freedom of Information and Protection of Privacy Act. In the event of a suspected reportable, notifiable or foreign animal disease, the AHC is obligated to comply with the federal Health of Animals and the provincial Animal Disease Control Acts by confirming the diagnosis and notifying the appropriate agencies.

*Submitter's Signature: _____

*Date: 27 Feb, 2023



Interim Report AHC Case: 23-2789

Last Updated: 03/03/23 8:51 AM
Case Coordinator: Glenna McGregor
Received Date: 02/27/23
Collected Date:
Client Ref No: #44, #62

Veterinarian:
Clinic:
Phone:
Fax:

Submitter: **Critter Care Wildlife Society**
Phone: (604) 530-2064

Owner: **Critter Care Wildlife Society**
Phone:
Premise ID:

Animal Data
Species: Striped Skunk
Breed:
Sex:
Age: Adult
Animal ID: #44, #62

Case History

We have been experiencing a large volume of calls from Vancouver and Richmond describing adult skunks in distress. They are all unable to walk properly, or at all. They come in to the centre seizing, writhing, and sometimes excessively salivating, though not consistently. Most of the skunks are found laying supine or lateral recumbent with their limbs outstretched. Pupils are non-reactive and are the size of pin-pricks. The skunks seem to be in a stupor which cannot be reversed and do not react to touch, sound, or light. Their symptoms are consistent with poisoning and many callers have found black rat boxes or rat poison pellets near the skunks. All of the some 20 skunks the centre has received have either been euthanized or dead on arrival or died in care, regardless of the treatment given, which includes administration of vitamin K injection IM, administration of charcoal PO, and shock fluids SQ.

#44- Euthanized February 16th, Adult M, Richmond
#62- Euthanized February 26th, Adult M, Vancouver

Condition suspected: Poisoning

Presenting complaint: other (see history section).

No. dead: approx 20

***All histories are copied verbatim from the submission form**

Staff Comments:

Received: 2 Skunks

Testing Requested: Post Mortem Examination

Preliminary Findings

Preliminary Findings:

Nasopharyngeal swabs from both skunks have tested positive for Influenza A and there are macroscopic and microscopic tissue changes (necrosuppurative interstitial pneumonia, hepatitis, nephritis and adrenalitis) consistent with severe systemic influenza as the cause of death in both skunks. Further testing including a complete histopathology review and

further typing of the influenza is ongoing. Samples will also be sent to the BC CDC for whole genome sequencing.

Knowing more about mammalian adaptation of influenza A is really important for public health and a current key area of research. If any further skunks succumb please send them in for testing as soon as possible.

Many strains of Influenza A can infect people. Proper PPE should be worn and strict biosecurity observed when handling potentially affected skunks or carcasses. This influenza detection will be reported to public health shortly and they may contact you for more information. Depending on the typing result this may need to be reported to the Canadian Food Inspection Agency (CFIA), who may also contact you for more information.

If you have any questions or concerns please do not hesitate to call (604-556-3003) or email (Glenna.McGregor@gov.bc.ca).

Final Diagnosis

Results are Pending for Final Diagnosis

Necropsy

Gross examination performed February 28, 2023.

Received 2 skunks for post-mortem examination.

#62 was male and in a moderately autolyzed state of post-mortem preservation. It was in good body condition with abundant subcutaneous and omental adipose tissue. There were very large numbers of chewing lice over the entire carcass. There was a 10 cm area of hairloss, crusting and thickened skin (epidermal hyperplasia) with multiple areas of ulceration on the back of the neck.

The lungs were diffusely dark purple, meaty and several sections sank in formalin.

The spleen was markedly enlarged and dark and bulged on cross-section. There were occasional indistinct pin-point pale foci in the liver and the liver was subjectively friable.

There were a small number of round worms present in the small intestine, particularly the duodenum, and the stomach.

#44 was male and in a severely autolyzed and frozen-thawed state of post-mortem preservation. It was in good body condition with abundant subcutaneous and visceral adipose tissue. There was a large amount of blood-tinged fluid leaking from the nose. There was marked diffuse congestion of the muscles, viscera and connective tissue.

There was approximately 10 mL of bloody fluid in the thoracic cavity with friable red tissue (blood and fibrin) weakly adherent to the pleural surface. The lungs were diffusely meaty, dark purple, heavy and wet and were neutrally buoyant in formalin.

There were extremely large numbers of round worms in the small intestine, particularly the duodenum.

Histopathology

Results are Pending for Histopathology - Prod

Molecular Diagnostics

Influenza Virus H5 Resulted by: J. Taylor Verified by: Kazal Ghosh on 03/03/23 @ 8:51 AM

Specimen	ID	Test	Result
Swab	#44 NP sb	Influenza Virus H5	Positive
Swab	#44 Rectal sb	Influenza Virus H5	Positive
Swab	#62 NP sb	Influenza Virus H5	Positive

Swab	#62 Rectal sb	Influenza Virus H5	Positive
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Ct values are 24.40, 35.00, 28.60 and 34.03.

Method: Influa RRT-PCR # Doc 3493

Swine Influenza-pH1N1-09 Resulted by: J. Taylor Verified by: Kazal Ghosh on 03/03/23 @ 8:51 AM

Specimen	ID	Test	Result
Swab	#44 NP sb	Swine Influenza-pH1N1-09	Negative
Swab	#44 Rectal sb	Swine Influenza-pH1N1-09	Negative
Swab	#62 NP sb	Swine Influenza-pH1N1-09	Negative
Swab	#62 Rectal sb	Swine Influenza-pH1N1-09	Negative

Influenza Virus-Consensus Resulted by: J. Taylor Verified by: Kazal Ghosh on 03/02/23 @ 2:45 PM

Specimen	ID	Test	Result
Swab	#44 NP sb	Influenza Virus-Consensus	Positive
Swab	#44 Rectal sb	Influenza Virus-Consensus	Negative
Swab	#62 NP sb	Influenza Virus-Consensus	Positive
Swab	#62 Rectal sb	Influenza Virus-Consensus	Negative

Ct values are 26.00 and 30.93.

Method: Influa RRT-PCR # Doc 3493

Glenna McGregor
BSc, DVM, MVetSc, DACVP

These results relate only to the animals, items or samples tested that were provided by the customer and are conditional to the state in which they were received.

Any opinions and interpretations in this report are based on case laboratory data and professional knowledge and experience.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The above material is intended only for the use of the individual to whom it is addressed, as it may contain confidential or personal information that is subject to provisions of the Freedom of Information and Protection of Privacy Act. This material must not be distributed, copied or disclosed to other unauthorized persons. If you have received this transmission in error, please contact the sender immediately by telephone.

END OF REPORT

RE: Skunk flu genomics

From: Joseph, Tomy AF:EX
To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>, McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>, Himsworth, Chelsea AF:EX <Chelsea.Himsworth@gov.bc.ca>
Cc: Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>, Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>
Sent: March 3, 2023 9:55:22 AM PST

Thanks Theresa.

Yes, I think Glenna collected a separate set of samples for BCCDC.

Tomy Joseph, DVM, M.Sc., Ph.D
Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

From: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>
Sent: Friday, March 3, 2023 9:52 AM
To: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>; Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>; Himsworth, Chelsea AF:EX <Chelsea.Himsworth@gov.bc.ca>
Cc: Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Subject: Re: Skunk flu genomics

Would be great to get genomics started on these promptly. Tomy, do you think we can forward samples to BCCDC given they are wildlife?

Theresa Burns
Chief Veterinarian, British Columbia
+1 (604) 768-7586 Mobile/Text

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
Sent: Friday, March 3, 2023 8:58:48 AM
To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>; Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>
Cc: Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Subject: Skunk flu

Hi Theresa,

Those skunks were H5 positive in all samples. All were negative for H1N1. The interim report is attached. Please let me know if there is anything further you need me to do re. reporting to CFIA or public health.

Thanks,
Glenna

Glenna McGregor, DVM, MSc, Dipl. ACVP
Veterinary Pathologist
Animal Health Centre
BC Ministry of Agriculture
Abbotsford, BC
V3G 2M3
604-556-3003
1-800-661-9903 (BC)

RE: Skunk flu - 23-2789

From: Joseph, Tomy AF:EX
To: PAHB Virology AF:EX <Virology@gov.bc.ca>
Cc: Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>, Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>, Taylor, Joanne AF:EX <Joanne.Taylor@gov.bc.ca>
Sent: March 3, 2023 12:08:56 PM PST

As we would like to forward these samples to the NCFAD as early as possible, please get samples ready for the CFIA pick on Monday next week. Please let JoAnne know location of the sample package as well.

Thank you,

Tomy Joseph, DVM, M.Sc., Ph.D
Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

From: Joseph, Tomy AF:EX
Sent: Friday, March 3, 2023 9:10 AM
To: PAHB Virology AF:EX <Virology@gov.bc.ca>
Cc: Ahmad, Khawaja AF:EX <Khawaja.Ahmad@gov.bc.ca>; Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Subject: FW: Skunk flu - 23-2789

Please package the skunk samples, both nasal and rectal swabs, for the CFIA pickup on Wed next week.

Thank you,

Tomy Joseph, DVM, M.Sc., Ph.D
Director, Animal Health Centre,
Ministry of Agriculture & Food
Abbotsford, BC, Ph. 604-556-3003

From: McGregor, Glenna AF:EX <Glenna.McGregor@gov.bc.ca>
Sent: Friday, March 3, 2023 8:59 AM
To: Burns, Theresa AF:EX <Theresa.Burns@gov.bc.ca>; Joseph, Tomy AF:EX <Tomy.Joseph@gov.bc.ca>
Cc: Ghosh, Kazal AF:EX <Kazal.Ghosh@gov.bc.ca>
Subject: Skunk flu

Hi Theresa,

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Thanks,
Glenna

Glenna McGregor, DVM, MSc, Dipl. ACVP
Veterinary Pathologist
Animal Health Centre
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