

WILDLIFE INFORMATION

Bovine TB Surveillance in Alberta 2016



our challenge In October 2016 bovine tuberculosis (bTB) was detected in a beef cow in southeastern Alberta. The Canadian Food Inspection Agency (CFIA) initiated an immediate investigation focused on finding and eliminating associated risk to livestock. Potential for infection in wild populations was considered a low risk. However, given the overlap of cattle and free-ranging wildlife, particularly elk in and around Canadian Forces Base (CFB) Suffield, the province expanded ongoing bTB surveillance of hunter-harvested wildlife in the general vicinity.

Although various species are susceptible, bovine TB is a rare disease in wild populations. When it occurs, bTB generally presents as abscesses in the lymph nodes, respiratory organs and pleural cavity. In Alberta it has been standard practice for many years to assess abscesses found in wildlife, and where applicable, send samples to CFIA for case by case assessment of potential occurrence of bTB. The disease has been detected only in bison in the far northeast corner of the province.

With primary rifle seasons beginning on November 1 2016, a program of enhanced passive surveillance of wildlife was undertaken in conjunction with generic disease activities associated with each fall hunting season, particularly ongoing chronic wasting disease (CWD) surveillance.

Public education

- bTB fact sheet (already on web).
- Web posting of new information bulletin specific to the bTB in southeastern AB.

- At CFB Suffield:
 - > Daily hunter briefings included bTB information, specifically what to look for and how to report any unusual finding in harvested elk (no deer hunt at CFB Suffield).
 - > Wildlife disease staff were present at check station whenever hunting was underway.
- bTB web links provided to deer and elk hunters in vicinity of CFB Suffield.

Lymph node assessment

- CWD lab technicians trained to assess retropharyngeal lymph nodes for visible evidence of bTB. Assessment applied to all heads sampled for CWD.
- Visibly enlarged (2x normal) or abscessed nodes forwarded to pathologists with Alberta Agriculture and Forestry (AF) and, if appropriate, further bTB evaluation undertaken (Standardized protocol developed in conjunction with AF).

General diagnostic response to individual hunter concerns

- Each year, the wildlife disease unit responds to a wide range of hunter concerns associated with harvested animals. Any such situation in 2016 that might be suggestive of possible bTB infection was addressed with the hunter and, if appropriate, samples provided for lab evaluation.
- All appropriate diagnostic cases examined by the Wildlife Disease Unit consider bTB.

Results from 2016/17

Education

1,620 draw hunters in Wildlife Management Unit (WMU) 150 and 732 [CFB Suffield] received emails with basic bTB Q&A and links to online information.

Daily briefings provided at all CFB Suffield hunts.

1,200 hunters were licenced to hunt elk in WMU 732 in 2016/17. Additional First Nations hunters attended the hunt. Over 1,500 hunters briefed about bTB.

Lymph nodes

Overall 4,327 deer, 431 elk and 176 moose were tested for CWD. Visible lesions found in two:

Enlarged retropharyngeal nodes (retros):

- 1 mule deer, inflammatory, no abscess, no indication of bTB.
- 1 adult female elk, WMU 236 southeast of Vermilion, inflammatory reaction. Histo, PCR, and culture negative for bTB.

Specific to CFB Suffield: 378 elk tested for CWD. No visible lesions in any retros.

Hunter concerns

One adult female elk harvested in WMU 128 northeast of Taber. Hunter concerned about discoloured lungs with apparent pebbles on lung surfaces.

- Gross and histo confirm gunshot and agonal (terminal) artifacts.

One adult female elk harvested at Suffield had hard masses in the lungs.

- Gross and histo support diagnosis of metastatic osteosarcoma.

1,258 elk harvested at Suffield. Only the elk mentioned above (OSL 16-115) was reported as having any visible lesions.

Ongoing diagnostic cases – no diagnostic cases met criteria for being suggestive of bTB infections.

Summary

No evidence of bTB during the 2016/17 hunting seasons in Alberta.

Additional information

Southeastern Alberta bovine tuberculosis info:

CFIA:

<http://www.inspection.gc.ca/animals/terrestrial-animals/diseases/reportable/tuberculosis/investigation-alberta-and-saskatchewan/eng/1477438380160/1477438380659>

Wildlife Diseases in Alberta:

aep.alberta.ca/fish-wildlife/wildlife-diseases/