Ontario’s Preparedness for Chronic Wasting Disease

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Ontario’s Cervids

- Cervid Ecological Framework
- Deer ~400,000
- Moose ~109,000
- Elk ~500
- Caribou ~20,000
Ontario’s CWD History


- Retrospective investigation at Toronto Zoo
- Chronic wasting disease prion antigen was detected in 8 of 105 animals tested: 7 mule deer and 1 black-tailed deer
- Last CWD mortality in 1981
- Most likely introduced by importation from a zoo in the United States.
- Toronto Zoo collection has very low risk of currently being infected with CWD.

Socio-Economic Impacts of Detection

- 2004 Study (Stratus Consulting)
  - Modelled using MNR’s Socio-Economic Impact Model (SEIM)
  - APPENDIX IV of Ontario’s CWD Surveillance & Response Plan

**Hunting**
- License revenue declines ($260K to $1.33M annually)
- Value-added economic impacts ($2.4M to $11.8M annually)

**Farming**
- Valued-added economic impacts ($1.4M to $11.7M annually)
- Loss of employment (31 to 257 person-years)
Ontario CWD Task Team

- Members include:
  - Ministry of Natural Resources (MNR) (chair)
  - Ministry of Agriculture, Food, and Rural Affairs (OMAFRA)
  - Ministry of Health and Long-Term Care (MOHLTC)
  - Canadian Food Inspection Agency (CFIA)

The Ontario CWD Surveillance & Response Plan

- Released in 2005
- Available on our website
- Addresses wild and captive animals
- Further work needs to be done

Objectives

1. Ontarians are engaged in determining MNR’s CWD response actions
2. Public communications are clear and ensure public safety
3. Intensive research is conducted to determine the prevalence and rate of spread in wild populations
4. Response activities are evidence-based (including environmental, social, economic, and cultural knowledge) and occur in a timely manner
5. Containment of CWD within area around initial detection
6. Eradication of CWD from Ontario’s free-ranging and farmed cervid populations

Guiding Principles

- Ontarians desire healthy and sustainable wildlife populations
- Effective response to CWD includes three fundamental components: rapid identification, geographical containment and eradication
- Management of CWD should build on successful approaches demonstrated by other jurisdictions and should be evidence-based and scientifically-sound
- Actions to address CWD should have a high degree of public and stakeholder support to ensure they are effective
CWD Detected in Wild Cervid

- Public Communications
- Establish Enhanced Surveillance and Response Zone (ESRZ)
- Establish cervid management objectives
- Undertake enhanced surveillance to detect CWD in 0.1% of ESRZ population
- Modify ESRZ boundaries based on results of enhanced surveillance
- Conduct annual surveys to determine effectiveness of management actions
- Continue intense sampling until 3 consecutive years without an additional CWD case
- Public/Stakeholder Engagement
- Restrict movement of captive cervids and high risk cervid parts out of ESRZ
- Set harvest allocations to achieve desired population reductions
- Implement mandatory sample submission for hunter-harvested deer
- If sample submission does not meet targets, begin active surveillance
- If population reduction does not meet target, increase harvest allocations
- If increased harvest does not occur, use MNR sharpshooters (or private contractor) to reduce populations

Enhanced Surveillance and Response Zone

- Size
  - Guided by deer dispersal range (Broadfoot et al., 1996)
    - Southern Ontario: 30km
    - Northern Ontario: 75km
- Deer Density Estimation
  - ~30 hours helicopter time per ESRZ
- Population Goal
  - If prevalence >1%, strive for eradication
  - If prevalence <1%, strive for <2 deer/km²
- Timeline
  - ESRZ will be removed after 3 years with no additional CWD cases
Recovery

• Recovery phase will last 36 months after final CWD detection
• Consist of:
  – Monitoring and surveillance
  – Public and stakeholder engagement
  – Follow-up assessment
    • Impacts on the public and stakeholders
    • Amendments to response plan (lessons learned)
    • Revised provincial deer management strategy
    • New policies or regulations (?)

Ontario Contact Information

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