WSWG North Dakota Disease Update (2014-2018)

2014:
- Bighorn sheep die-off first discovered during July.
- Seven herds affected.
- *Movi* detected in 18 of 27 (66.7%; 2014 - 2016) adult mortalities tested (PCR).
- *Movi* detected in 8 of 25 (32.0%) adult bighorn tested (PCR, random sample).
- Strain-typing revealed unique strain of *Movi*.
- Numerous adults showing clinical signs of pneumonia (coughing, nasal discharge).
- Few lambs showing clinical signs of pneumonia (coughing, nasal discharge).
- *Total population count = 270 (82-152-36)
- **Lamb recruitment = 26.4%.

2015:
- Herds affected increases to 12.
- *Movi* detected in 9 of 22 (40.9%) adult bighorn tested (PCR, random sample).
- Numerous adults showing clinical signs of pneumonia.
- Few lambs showing clinical signs of pneumonia.
- Total population count = 292 (88-160-44)
- Lamb recruitment = 30.6%.

2016:
- Herds affected increases to 14 (all herds in state).
- *Movi* detected in 9 of 23 (39.1%) adult bighorn tested (PCR, random sample).
- Few adults showing clinical signs of pneumonia.
- Numerous lambs showing clinical signs of pneumonia during summer survey, but some survive.
- Total population count = 296 (104-170-22).
- Lamb recruitment = 15.0% (lowest on record).

2017:
- *Movi* detected in 3 of 25 (12.0%) adult bighorn tested (PCR, random sample).
- No adults showing clinical signs of pneumonia.
- Numerous lambs showing clinical signs of pneumonia during summer survey, but many survive.
- Total population count = 265 (91-149-25)
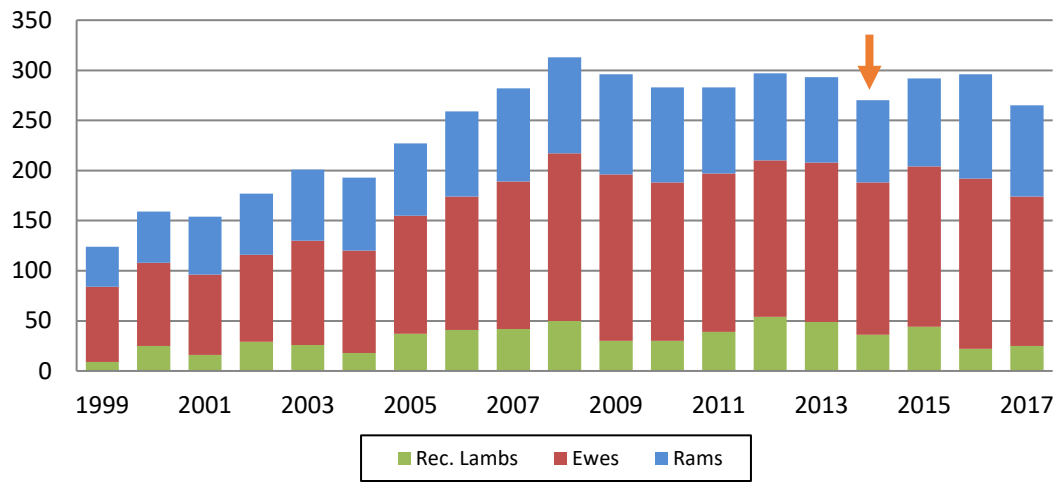- Lamb recruitment = 17.6% (second lowest on record).

2018:
- *Movi* detected in 4 of 15 (26.7%) adult bighorn tested (PCR, random sample).
- No adults showing clinical signs of pneumonia.
- Numerous lambs showing clinical signs of pneumonia during summer survey, but most survive (through November).
- Total population count = TBD.
- Lamb recruitment = TBD.

*(M-F-L) Adult males and females counted and classified via ground counts during summer.
**Lambs counted during summer (2-3 mo. old) and then re-counted during March (10-11 mo. old) to determine recruitment (lambs/adult female [≥2 yrs old]).

Bighorn Sheep - Demographics

Legend: Rec. Lambs, Ewes, Rams

Bighorn Sheep - Lamb Recruitment

Legend: Trend