



Greater Sage-grouse Status Review

Disease

Diseases affecting Sage-grouse

- Are many, but only one – West Nile virus - has been documented to have population level effects
 - Poorly studied
- No new information between 2010 and now to suggest any other diseases have emerged that have a significant impact on sage-grouse

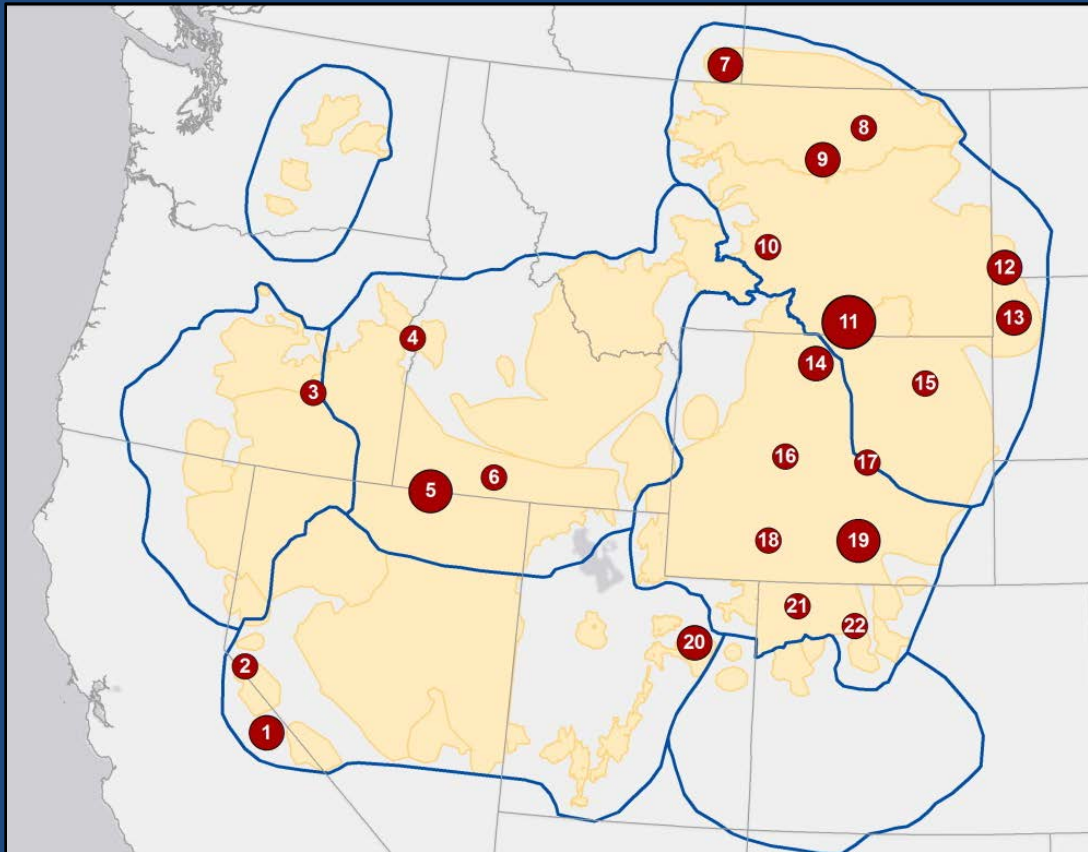


West Nile Virus

- Occurs throughout range of sage-grouse
- Occurrence influenced by temperature, mosquito breeding habitat, precipitation
- High mortality, very low resistance
- Greatest impacts to small, isolated populations
 - e.g. Spotted Horse, WY; South Dakota
- No surveillance program



Distribution of WNV-positive GRSG Carcasses



- 10 states, one province
- 2003-2009; 2012
- Patchy distribution
- Documentation is an artifact of monitoring

Areas of Interest



Discharge pond from CBNB well

- Anthropogenic surface water → mosquito habitat in arid sage-steppe
- Climate change likely to increase incidence
- Long term: ↓ pop growth rate, low acquired resistance

Conclusions

- WNV is not currently a significant, range-wide impact to sage-grouse (no change since 2010)
- WNV will remain a localized impact to sage-grouse, esp. small, isolated populations
- Other impacts to sage-grouse could exacerbate impacts of WNV in the future

