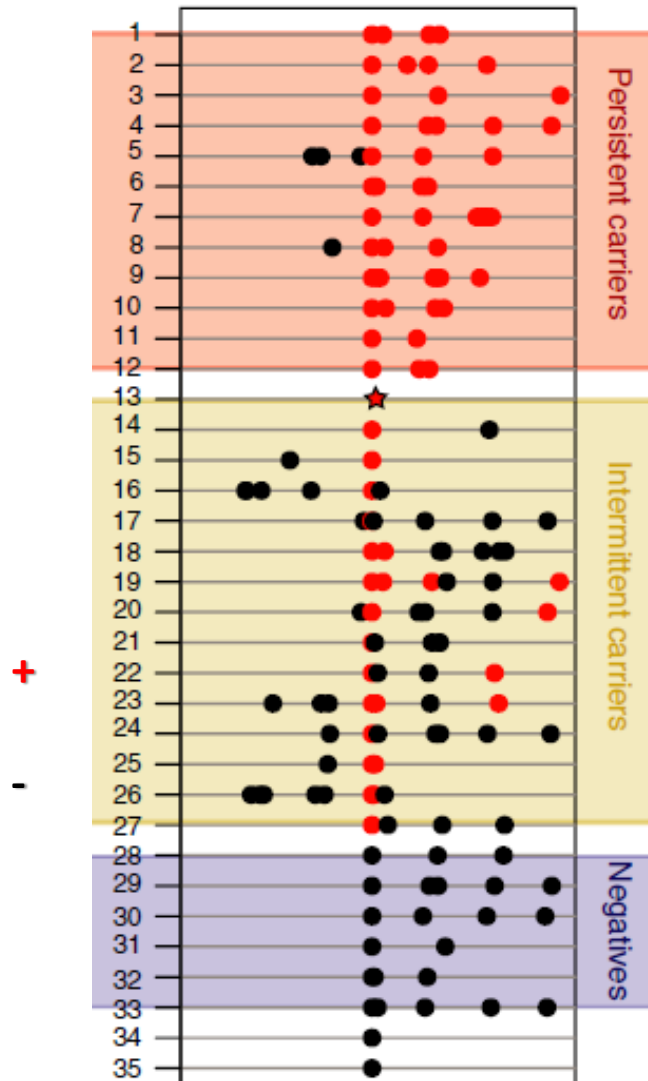




Update Hells Canyon January 2020

TEST AND REMOVE

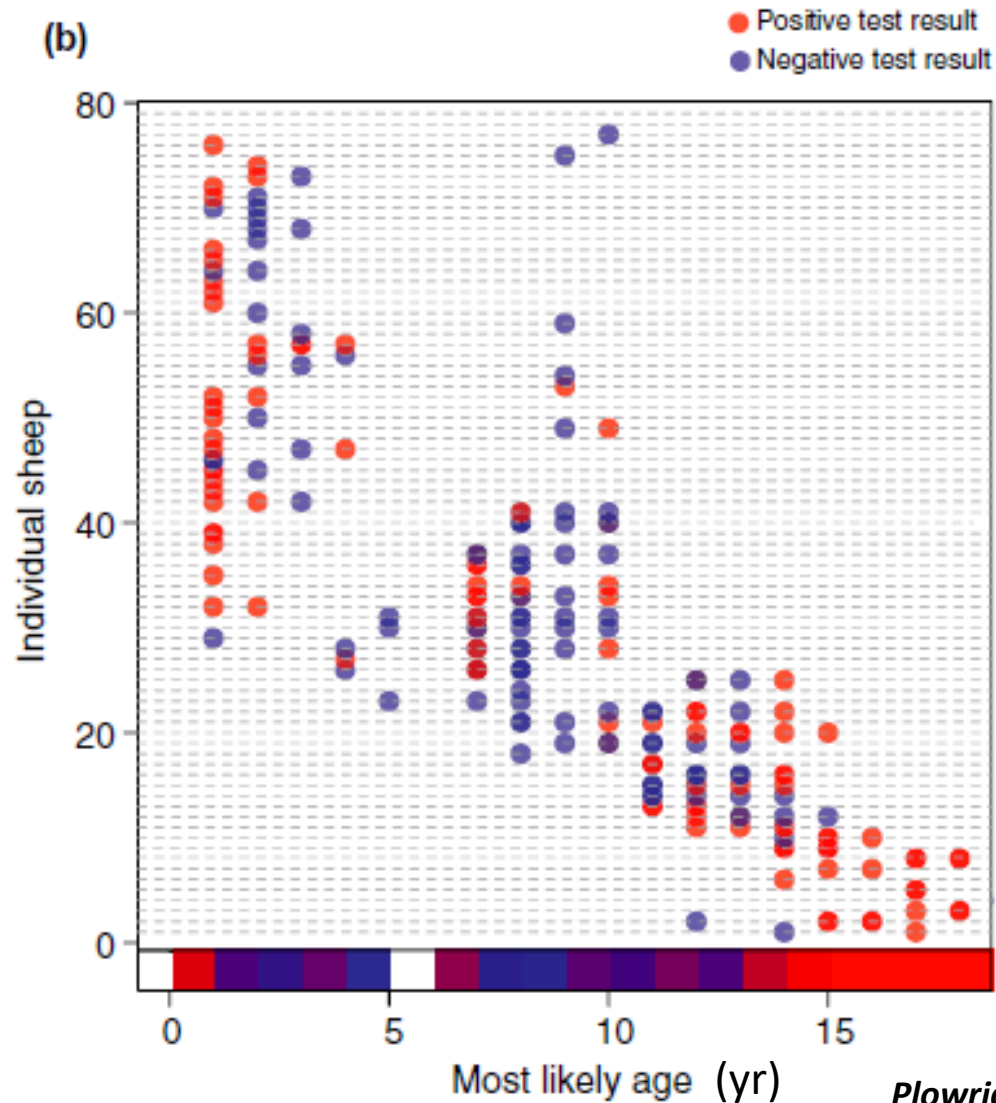
Movi Carrier Classes defined by repeated sampling over 4 years, Lostine Oregon Hells Canyon



● = *Mycoplasma ovipneumoniae* detected by PCR on nasal swab

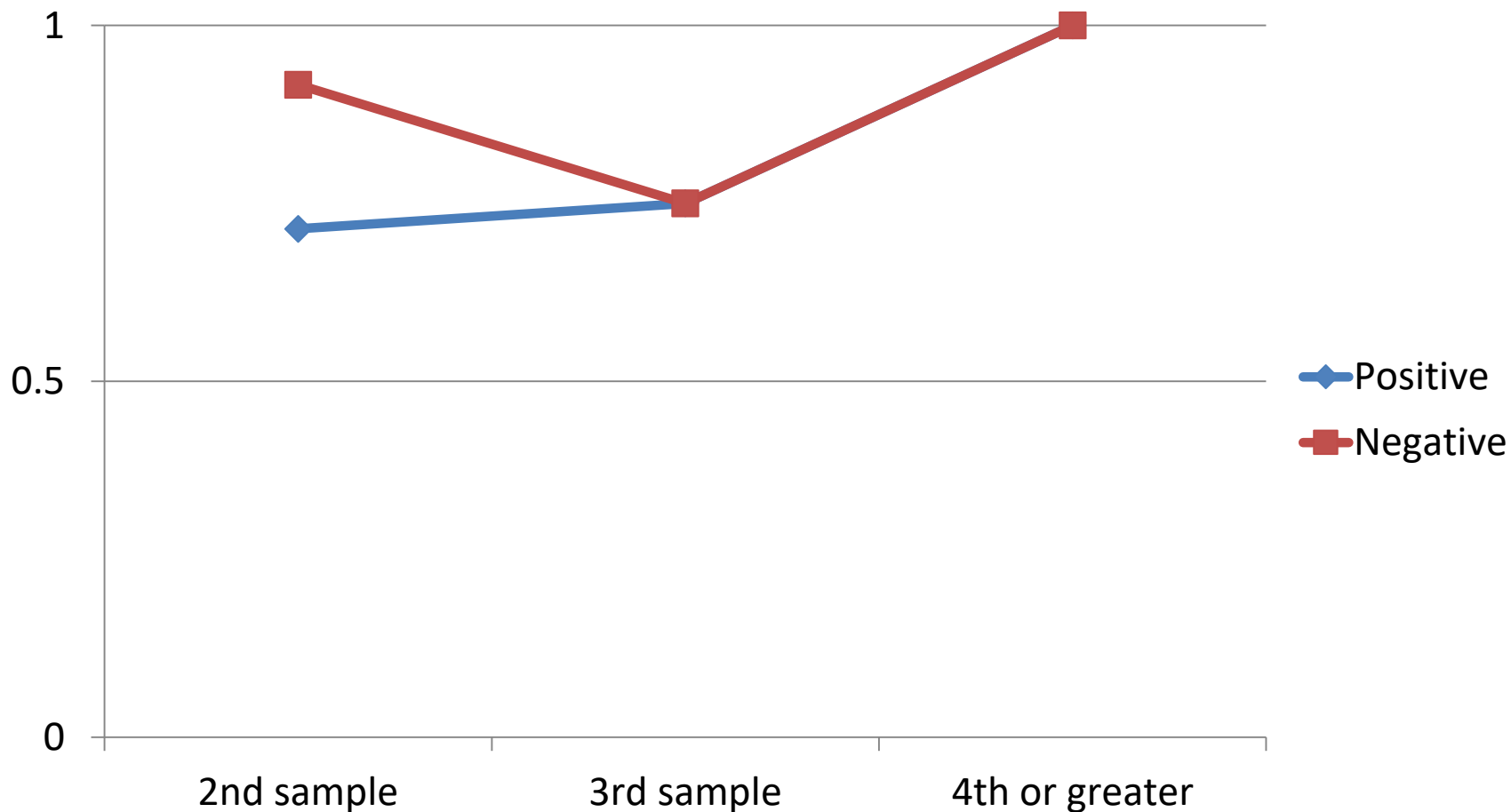
● = *Mycoplasma ovipneumoniae* not detected by PCR on nasal swab

Age of Movi positive sheep Lostine Oregon, Hells Canyon

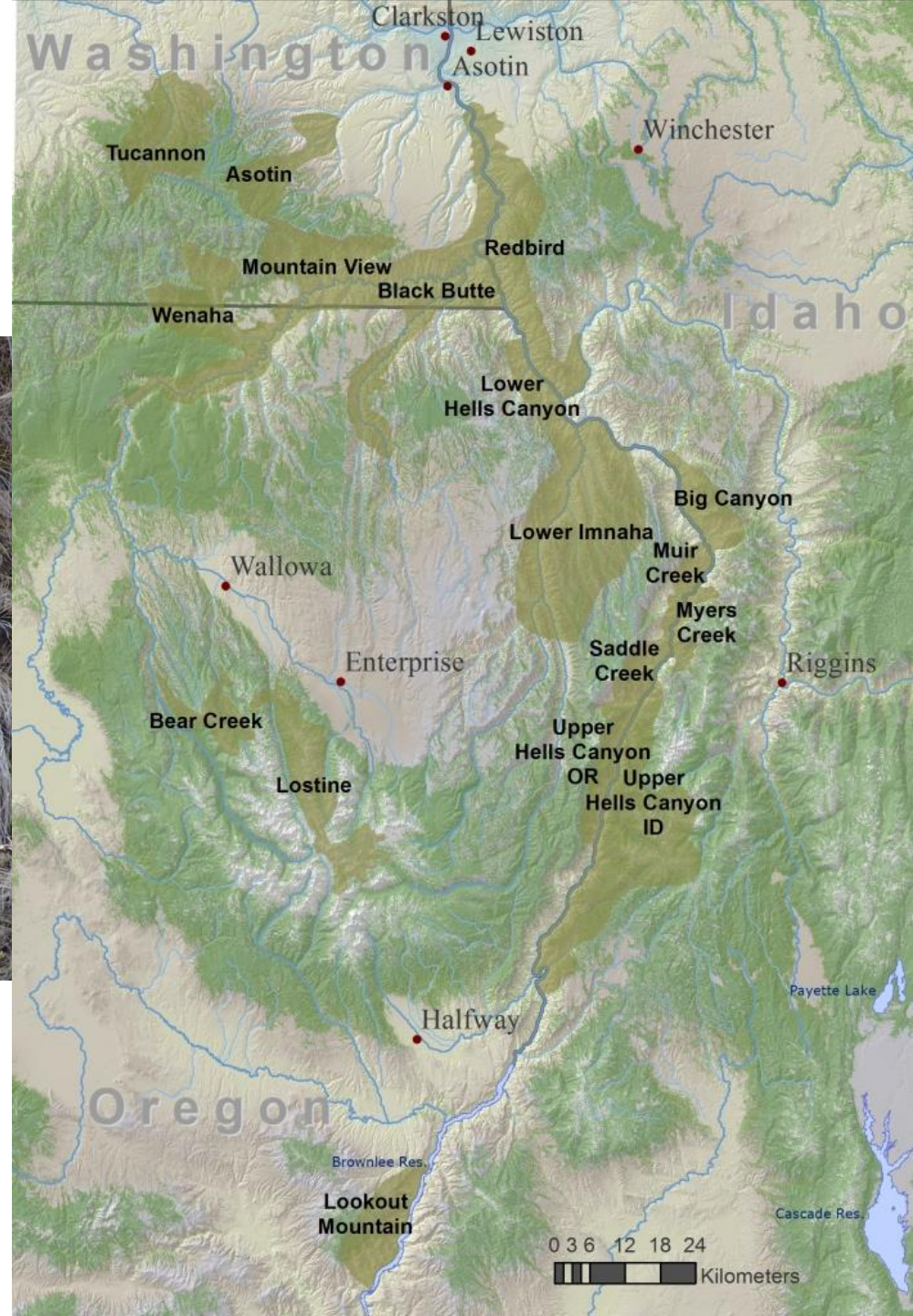


Probability of maintaining status given test result for first sample

Lostine 27 ewes tested 2 – 7 times



Hells Canyon Bighorn Sheep Populations



Movi status

Hells Canyon Bighorn Sheep Populations

Population	Last year tested	Last Movi positive test
Lookout and Tucannon	2014/ 2019	Never
Asotin	2019	November 2014
Black Butte	2019	February 2015
Mountain View	2019	February 2015
Wenaha	2019	February 2017
Lower Imnaha	2019	February 2010
Big Canyon	2019	February 2015
Redbird	2020 (pending)	February 2018
Lower Hells Canyon	2020 (pending)	February 2018
Muir Creek, UHC-ID, UHC-OR	2020 (pending)	February 2010
Lostine	2019 - ongoing	February 2019

Movi status of bighorn sheep populations



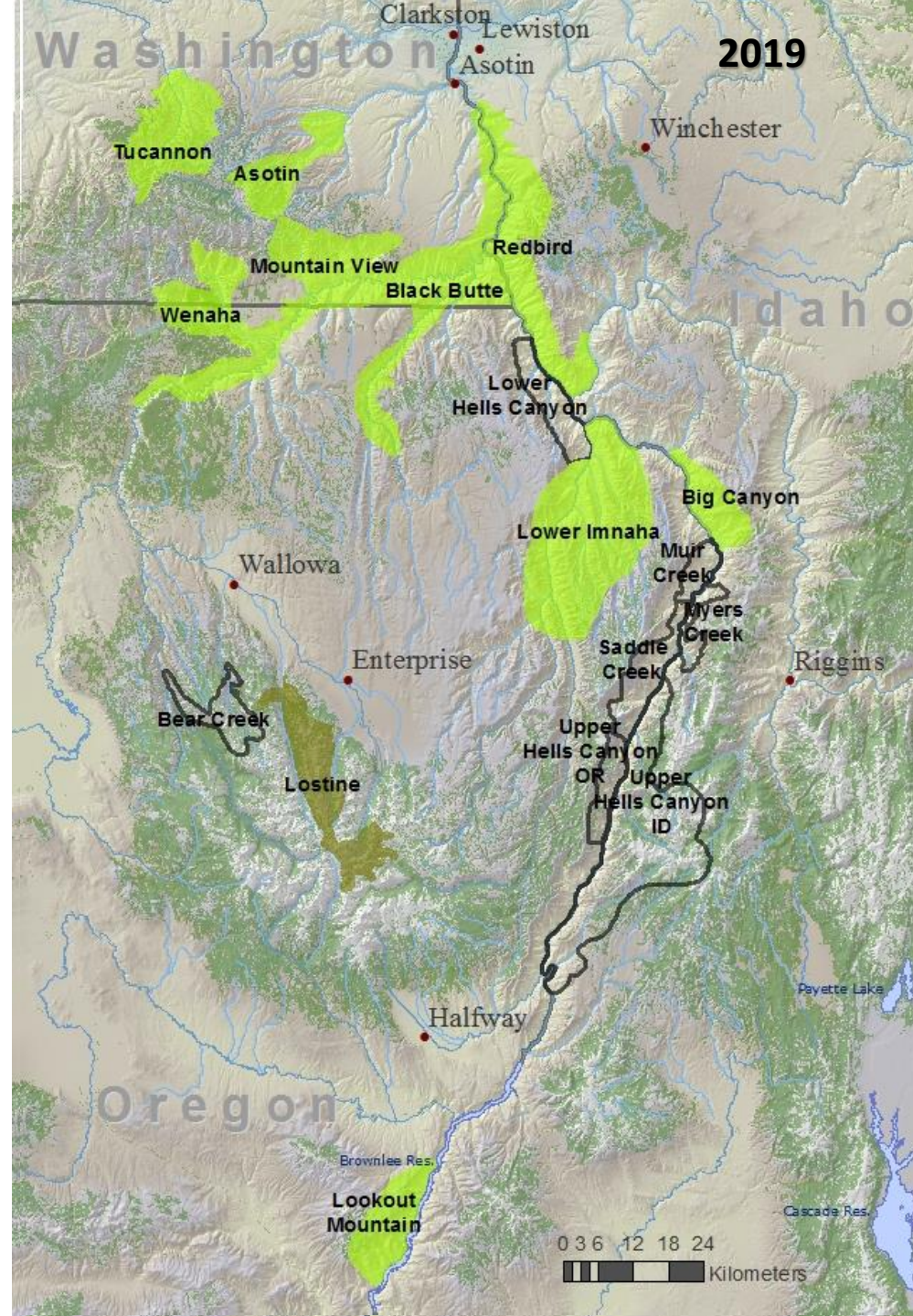
= No Movi detected



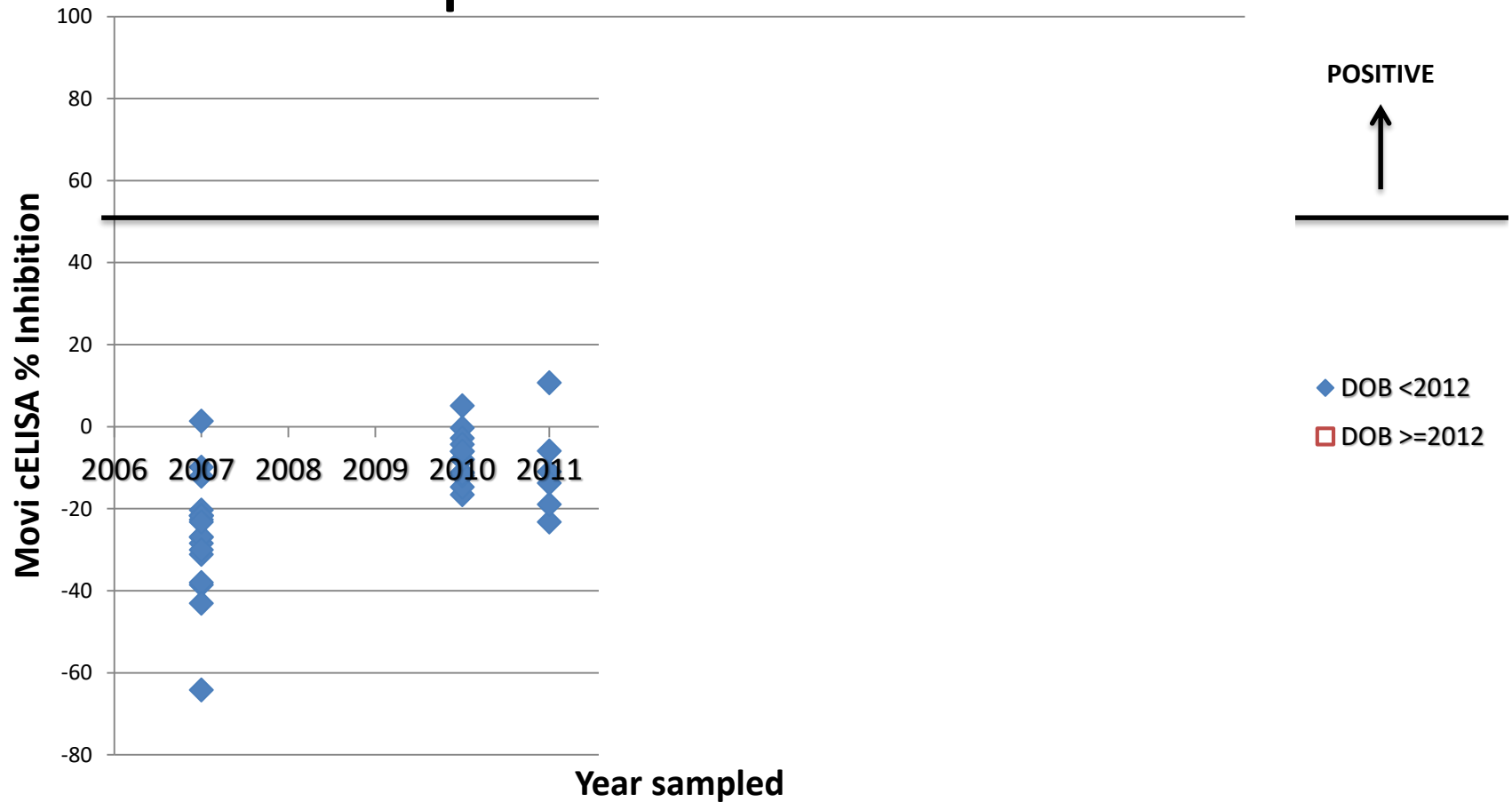
= Movi detected



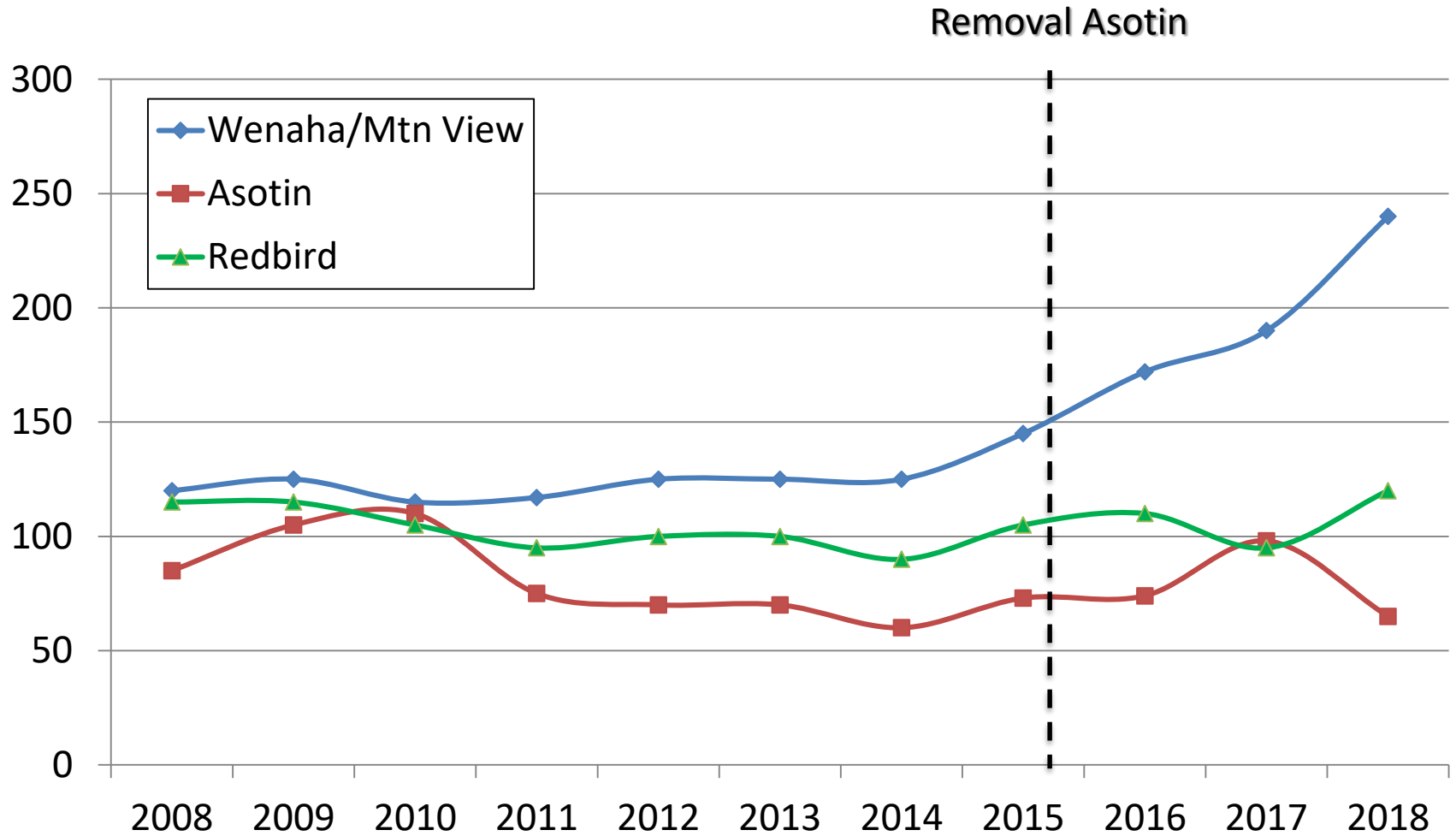
= Unknown Movi status



Timeline of exposure: Asotin antibodies to Movi Pre and post 2011 - 12 outbreak



Population estimates 2008 - 2018



Lostine

9 chronic carrier ewes removed
2014 - 2017



Sinus tumor

Radiography/ XRay
Flat panel
and CT Scan



Euthanized

Lostine chronic carrier

Sinus CT Scan

Lostine Chronic Movi Carrier



A group of wild sheep, including several rams with large, curved horns, are gathered on a rocky, mountainous slope. The ground is covered with patches of snow, suggesting a high-altitude or winter environment. The sheep are looking in various directions, some towards the camera and others away. The background shows more of the rugged terrain with scattered rocks and sparse vegetation.

A few things we have learned about “test and remove”

- Natural fade-out of disease was associated with removal of carriers in connected populations
- No rams were removed or identified as carriers
- Some populations increased quickly following Movi fadeout, others were slower to respond
- Patterns of carriage differ among populations - sinus tumors may be one factor

**HUGE THANKS TO THE MANY PEOPLE
WHO HELPED MAKE THIS PROJECT
HAPPEN**