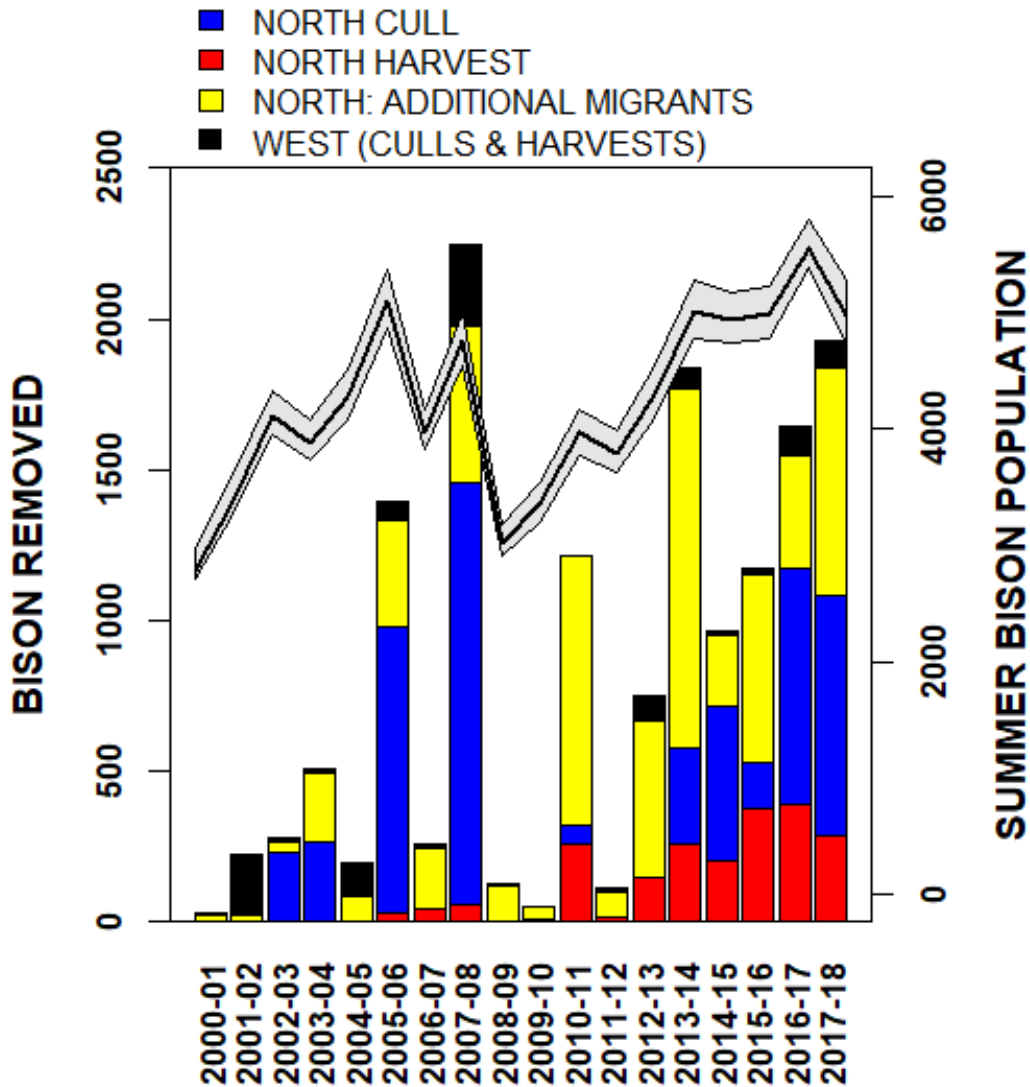


2017-2018 Operations

- **Summer 2017: Counted 4,816 bison**
 - 3,969 in north and 847 in central
- **Agreed to manage for a decreasing population**
 - Focus harvests and culls in northern management area
- **Removed about 1,171 bison**

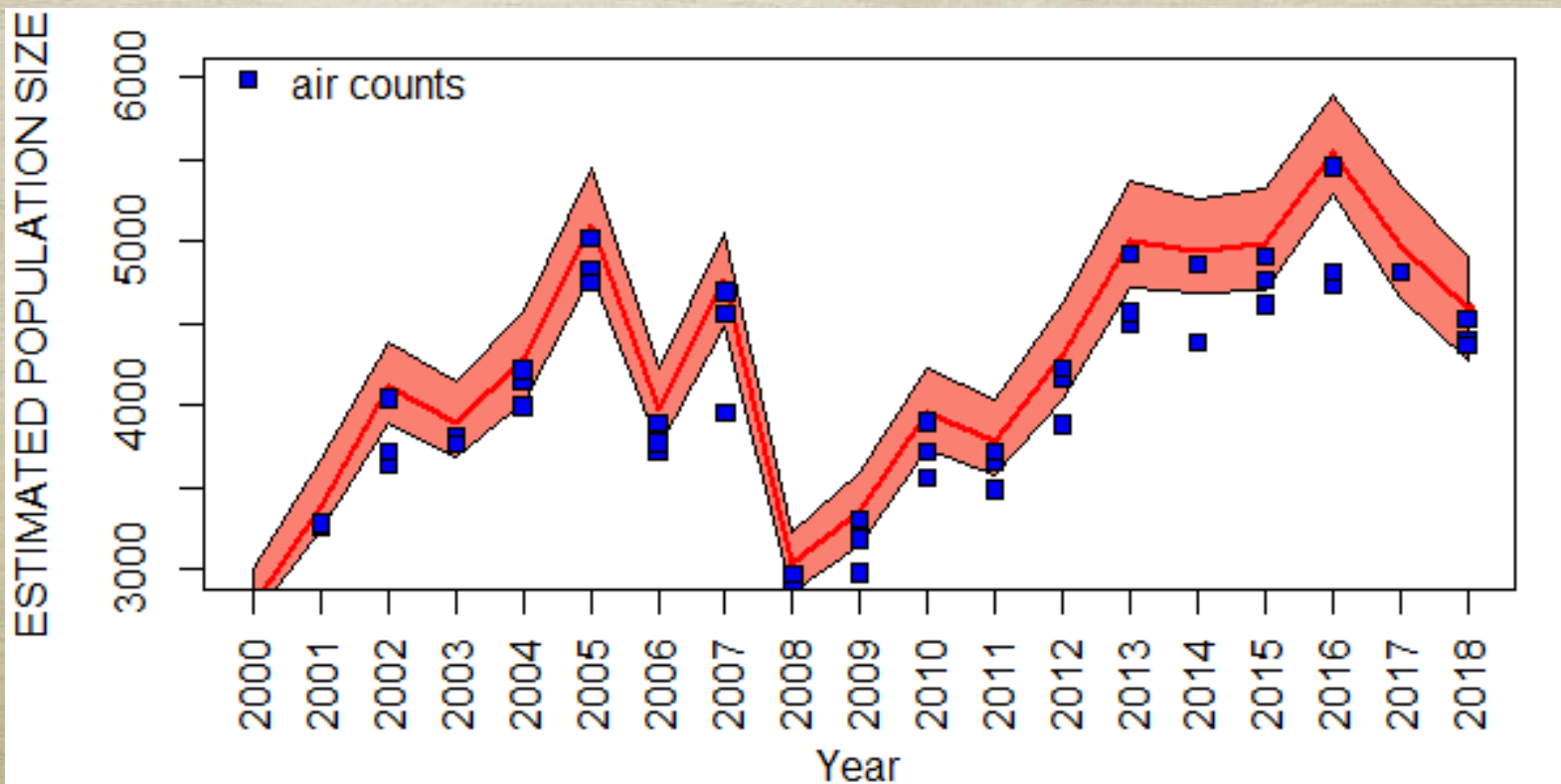


- About 375 Harvested
 - 285 North
 - 90 West
- Stephens Creek:
 - 694 Slaughtered
 - 99 Quarantine
 - 3 Pen Deaths
- Removals biased towards females/young
- End-of-winter estimate about 3,800 bison

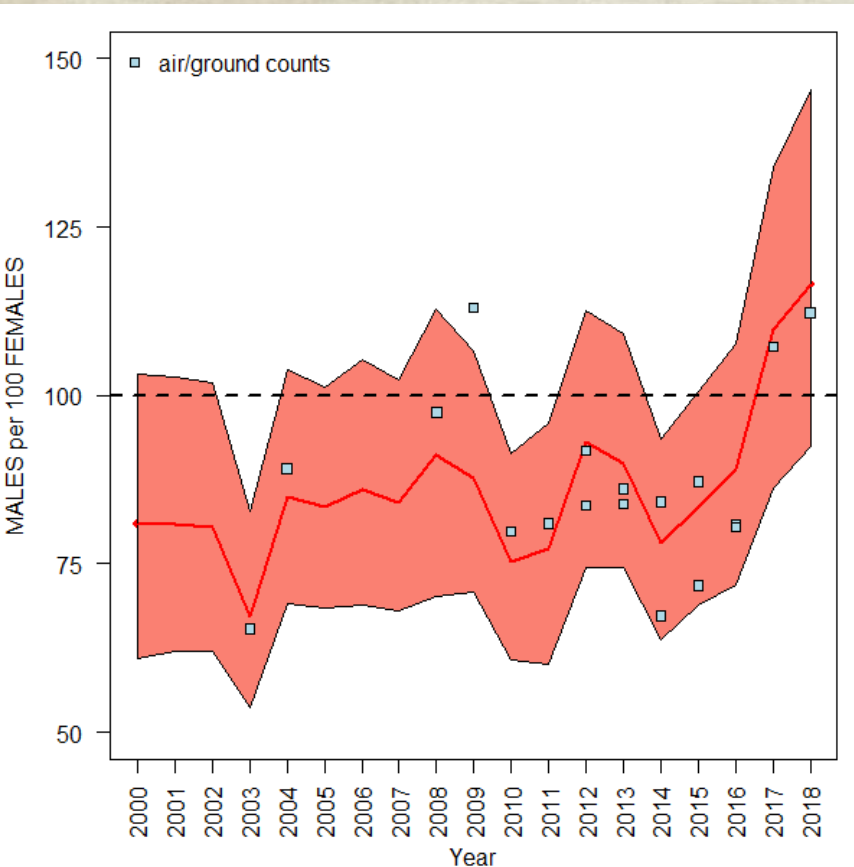
Population Count - Summer 2018

4,527 bison counted after calving

- 3,337 in north; 1,190 in central
- 6% decrease from 2017; -17% from 2016



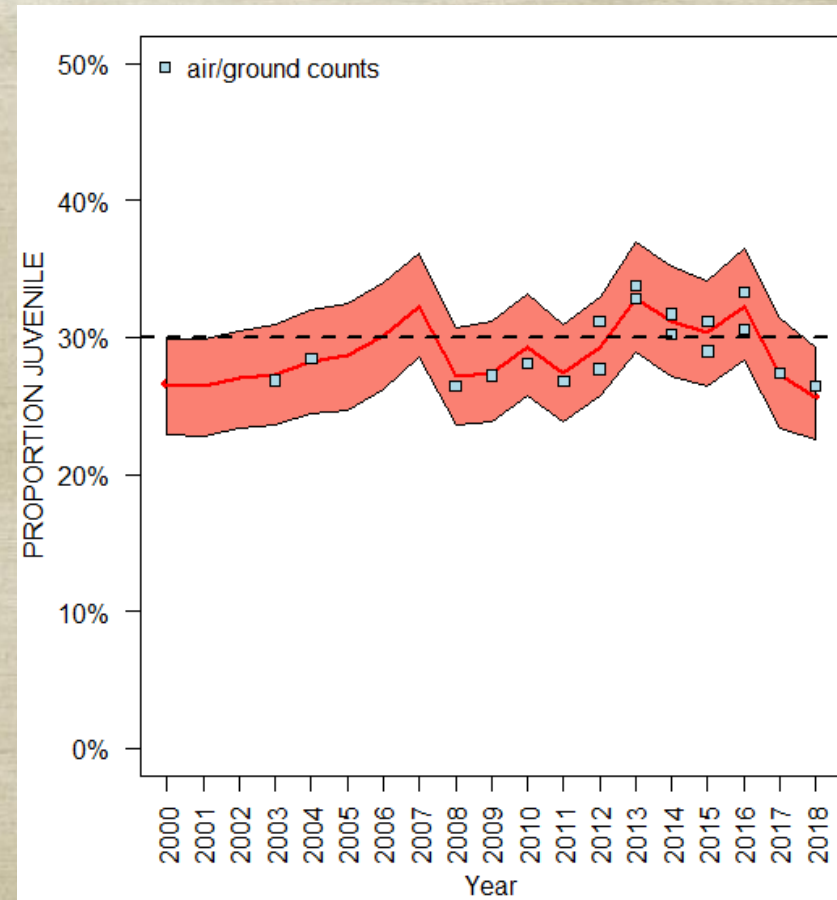
Overall Age and Sex Composition



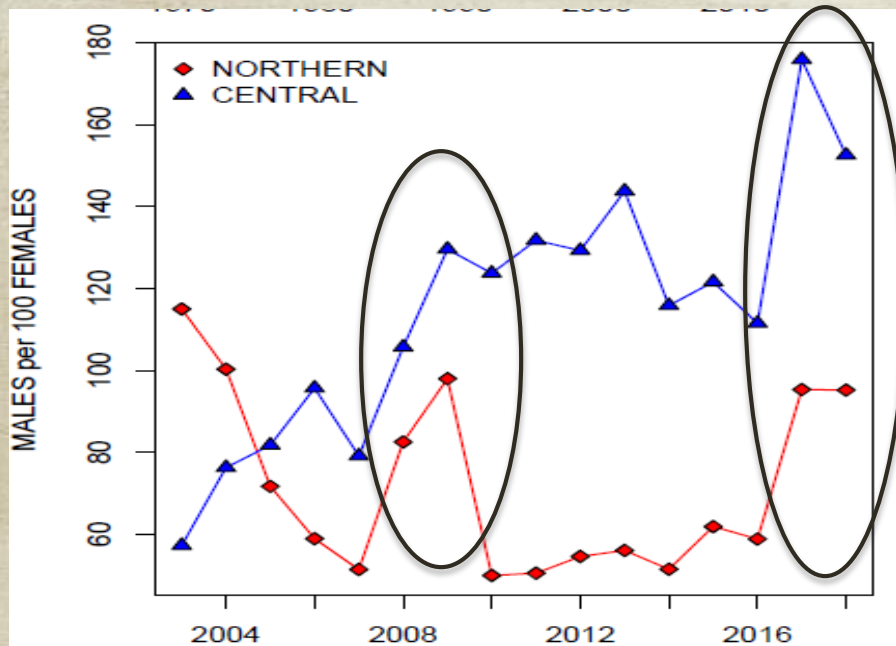
Proportions of males and females similar and near the desired condition (dotted line)

- Trending towards more males

Proportion of calves and juveniles (26%) near the desired condition (30%)

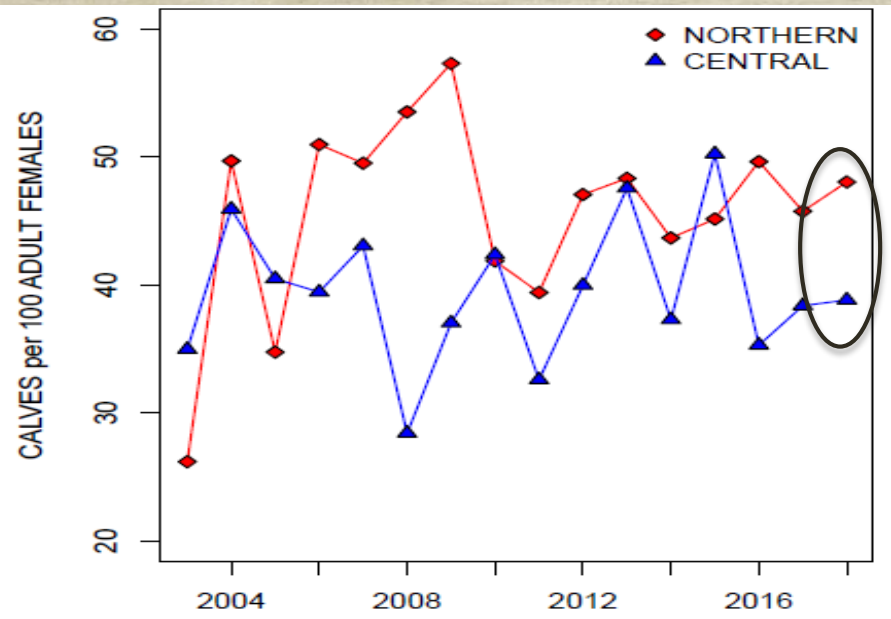


Age and Sex Composition by Breeding Herd

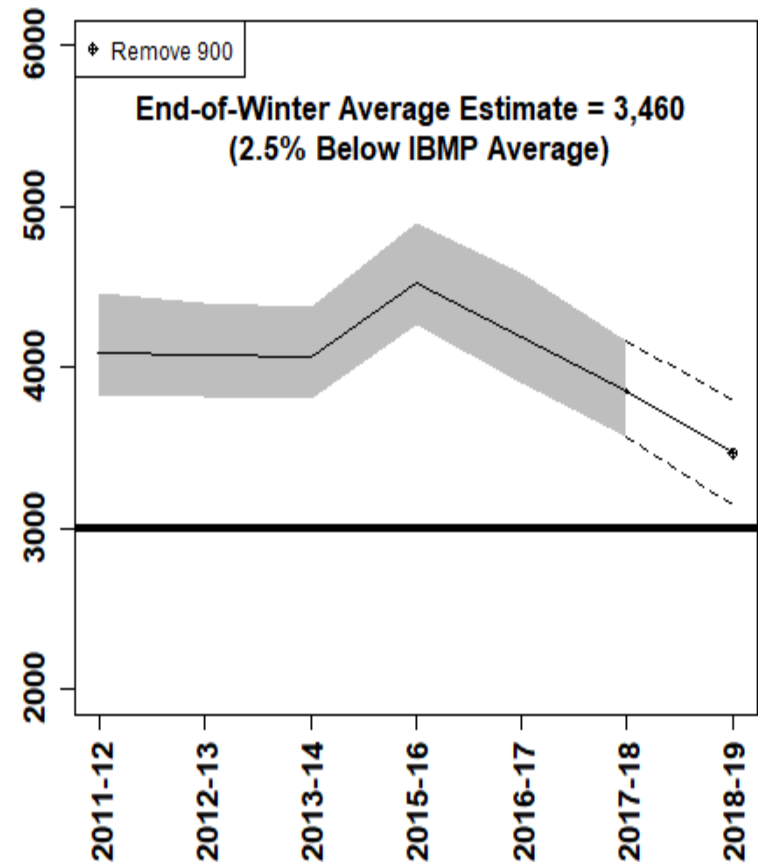
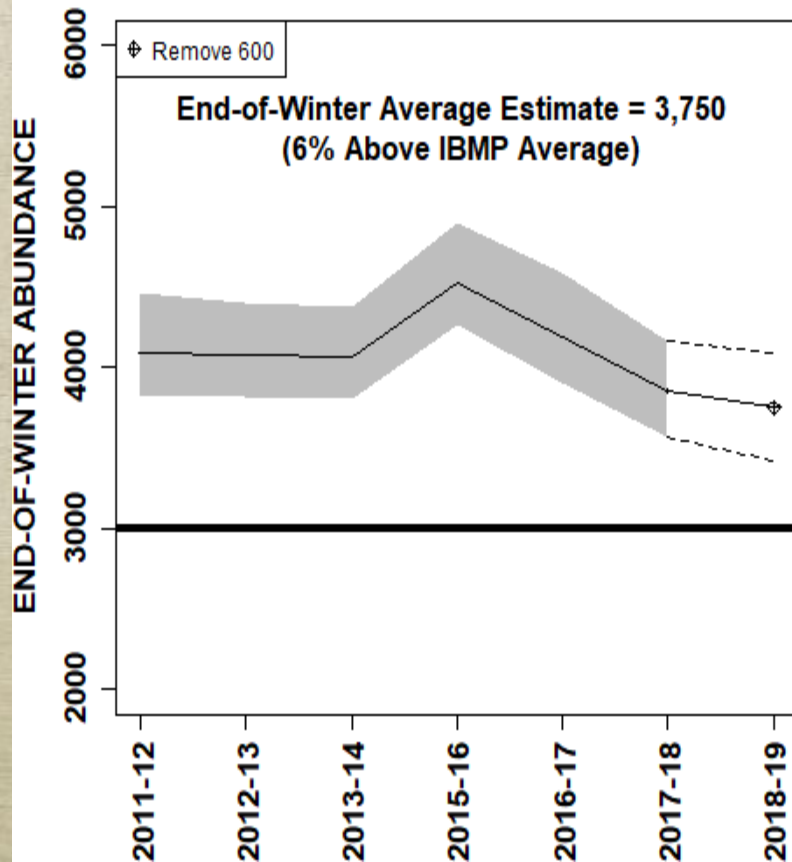


Increase in proportion of males likely reflects higher removals of females and young at the north boundary

Productivity of bison is lower in central Yellowstone



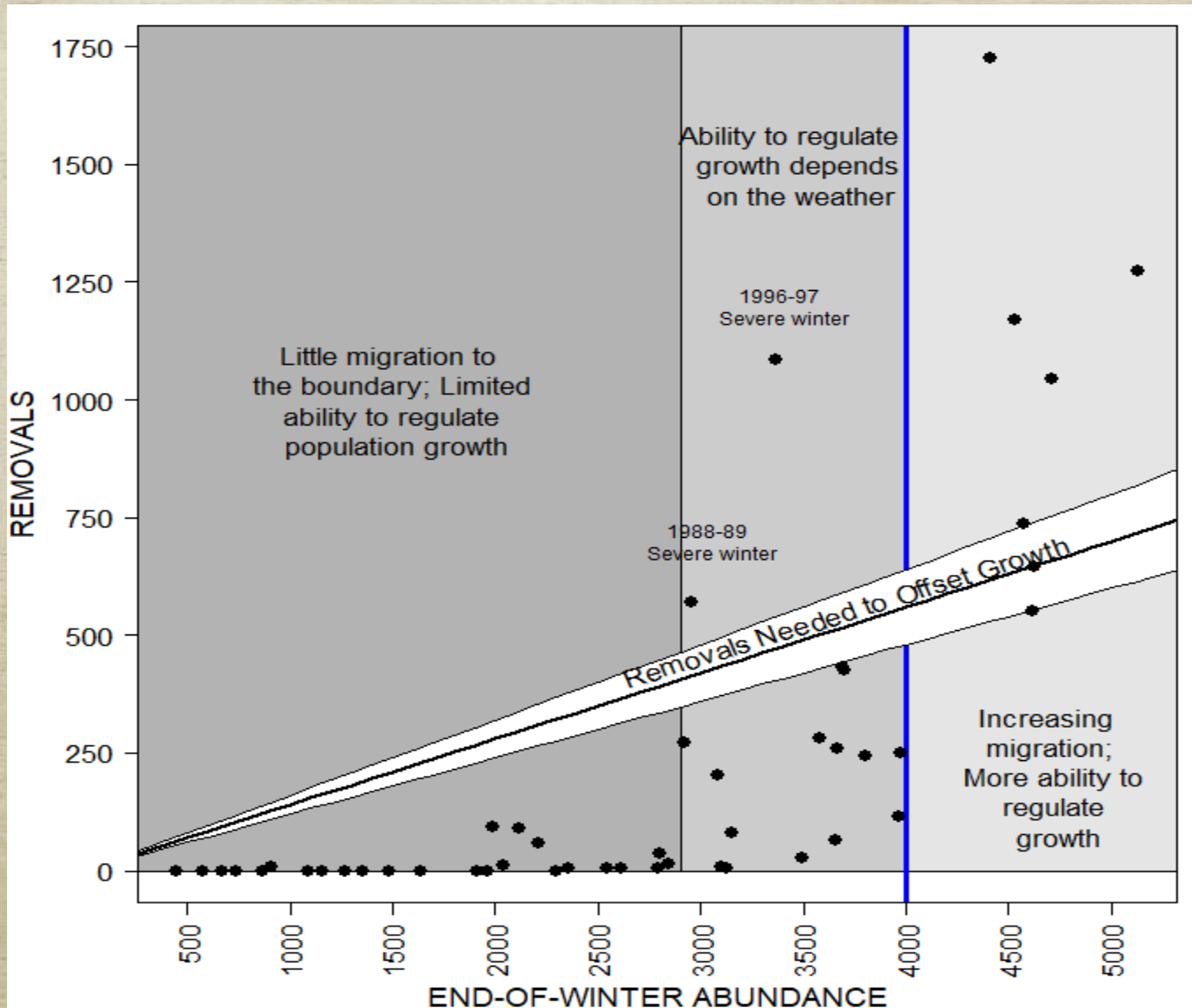
Winter 2018-2019 Removals



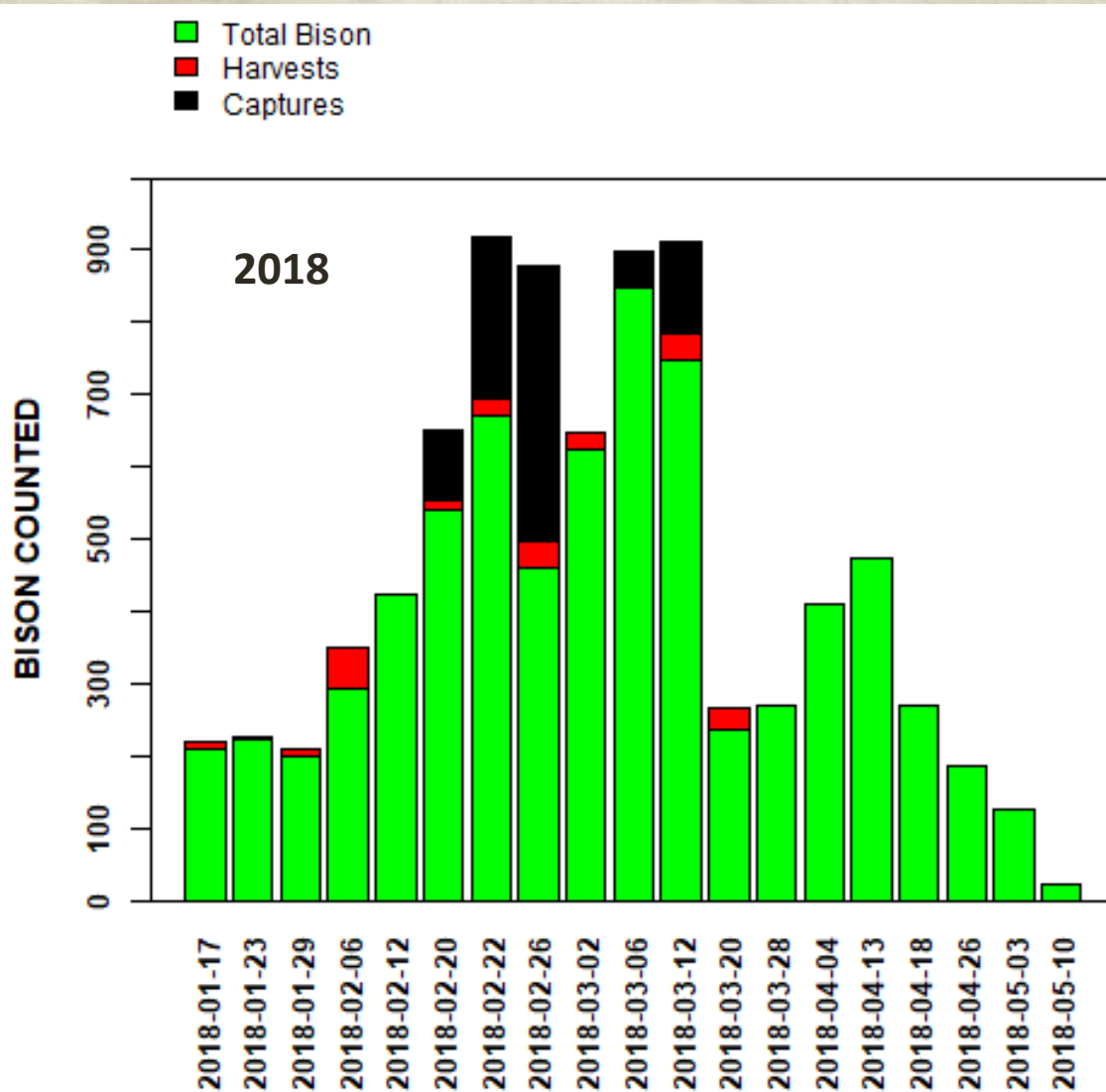
2018-2019 Recommendations

- **Remove 600-900 bison (i.e., stable to slightly decreasing population); focus on northern herd**
 - **Reduce numbers in north (grazing, conflicts)**
 - **Approach 3,525 bison end of winter (IBMP average); need fewer removals to regulate population**
- **Allow bison to distribute and hunt where suitable; limit harvests on west side to males (sex ratio skewed towards males)**
- **Remove bison in proportion to occurrence (~73% adults, 12% yearlings, 15% calves)**

Migration: Forecast = Mild Winter



Balancing Hunting and Culling

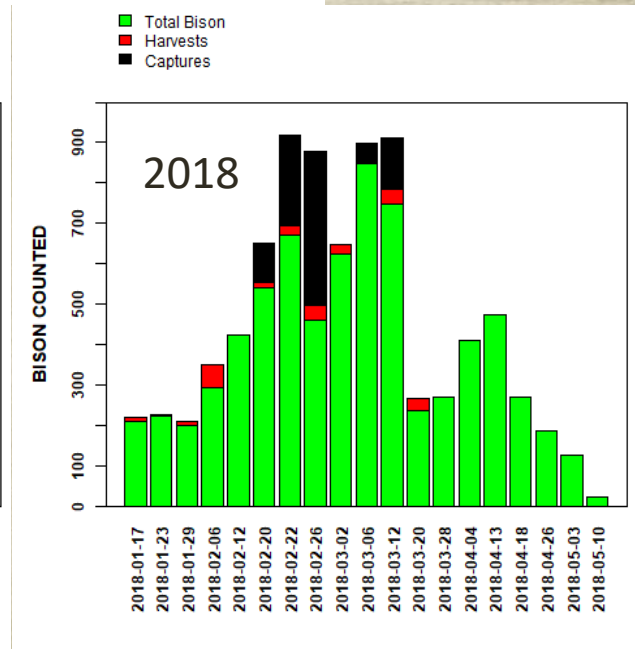
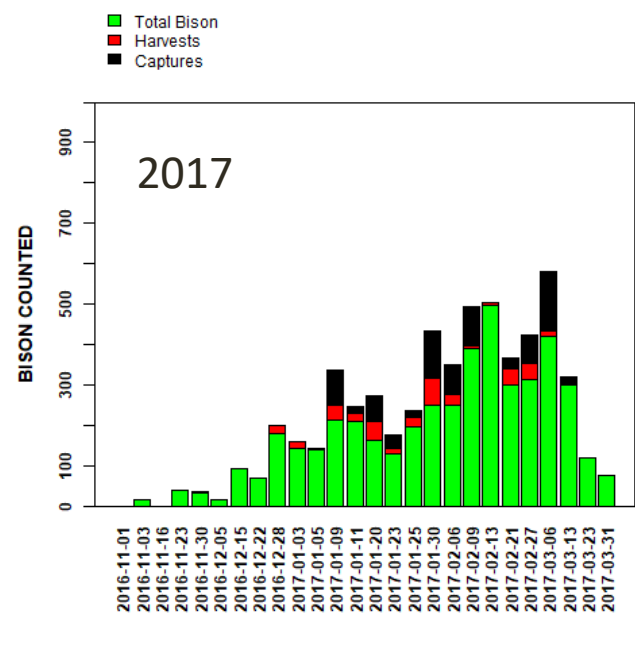
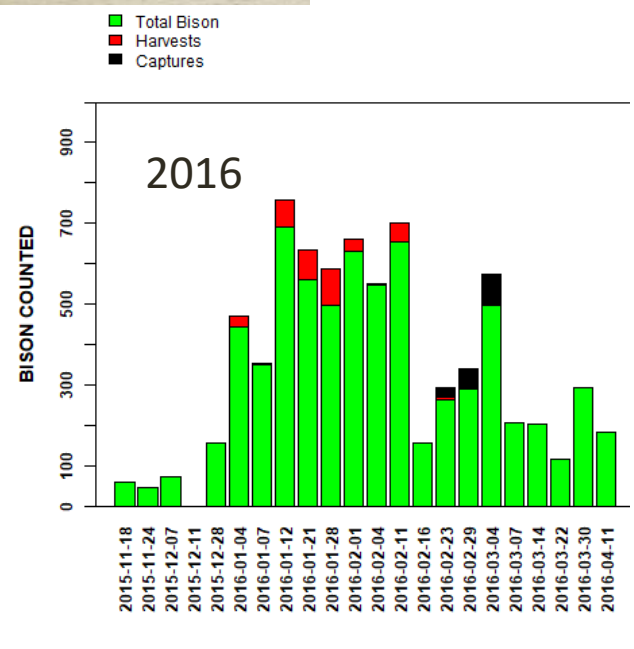
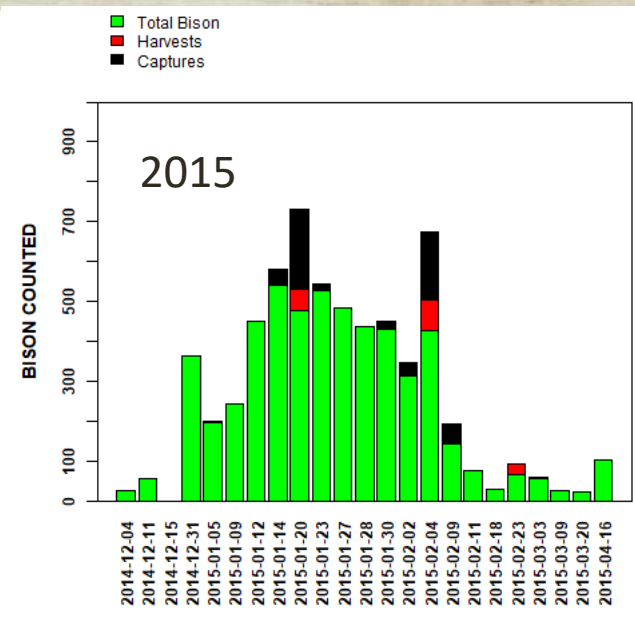
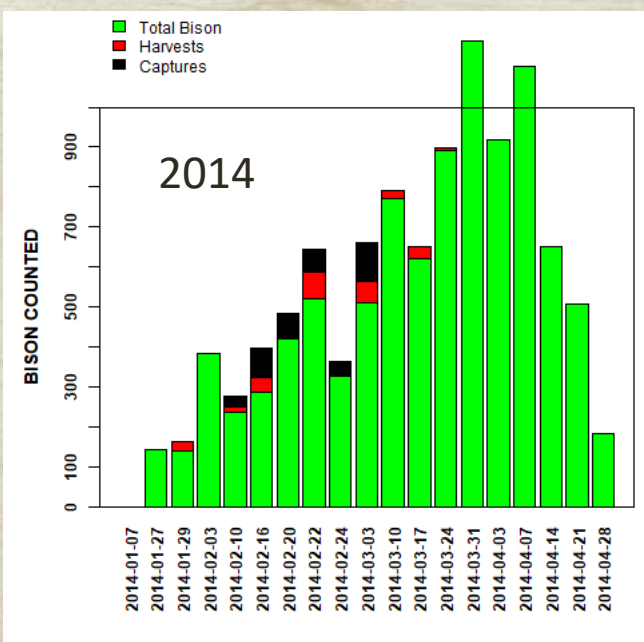


Bison move outside park when >200 north of Mammoth

North harvests averaged 275 (148-389) bison each winter since 2012

- Not enough to regulate population

Agreed to use culls to reach removal objectives



Balancing Hunting and Culling

Winter	Count	Goal North	Criteria	Harvest North	Cull	Total
2012	3,720	300	No Cull	15	0	15
2013	4,230	425	No Cull	148	0	148
2014	4,924	600-800	None	258	318	576
2015	4,865	900	None	201	518	719
2016	4,910	1,000	Cull >Feb 15	378	150	528
2017	5,449	900-1,400	None	389	788	1,177
2018	4,816	600-1,250	Monthly Hunt Goals (Cull>Feb20)	285	796	1,081

Balancing Hunting and Culling

Captures limit hunter success by reducing the number of bison that could migrate out of the park

Allow at least 200 bison north of Mammoth to facilitate migration to the boundary

Capture 400-600 bison through the winter and minimize the time animals are held at Stephens Creek

Bison won't necessarily have moved outside the park before being captured

Capture more bison as numbers north of Mammoth >600



Questions?