

# Bear and Cougar Rule Development 19.31.11 NMAC



July 24, 2019

New Mexico State Game Commission Meeting  
Socorro, NM

# Rule Development Timeline

- **July, August\*, & September** – present at SGC meetings
- **July** – Initial NMDGF ideas posted on the website
- **July & August** – Public meetings throughout the state
- **Early October** - Final NMDGF proposed rule posted on the website
- **November 21<sup>st</sup>** – Act on rule

# Bear Proposals



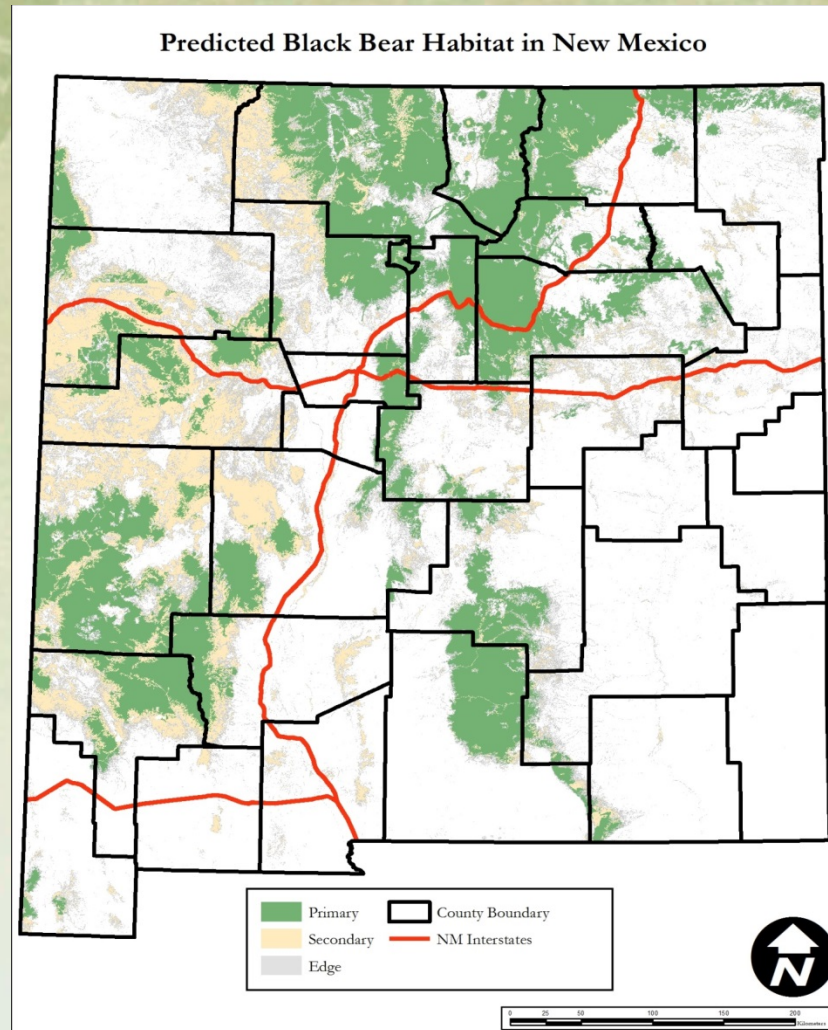
- **Currently not proposing changes to bear harvest limits**
- **Possibly adjusting BMZ boundaries**
- **Ongoing research to estimate zone-specific population size**

# Bear Harvest

Year	Sport Harvest (females)	Max Allowable Harvest	Depredation	Other	Total	# of Zones Closed
2016-17	438 (154)	804	50	13	501	4
2017-18	483 (178)	804	85	56	624	5
2018-19	496 (188)	804	68	36	600	3
<b>AVG</b>	<b>472 (173)</b>	<b>804</b>	<b>68</b>	<b>35</b>	<b>575</b>	<b>4</b>

# Habitat Model

Primary habitat = 54,793 km<sup>2</sup>  
(18% of NM)

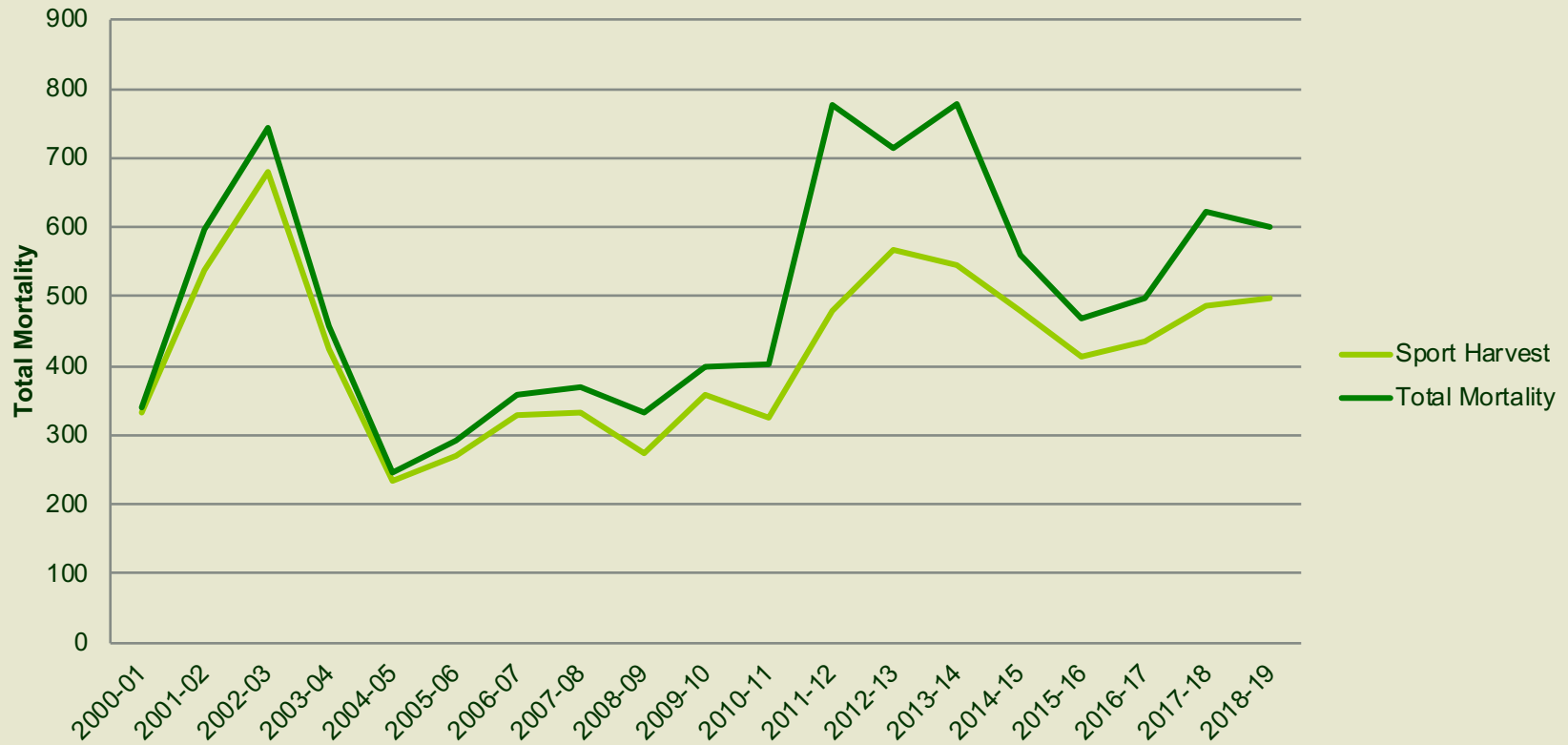


# Population Information

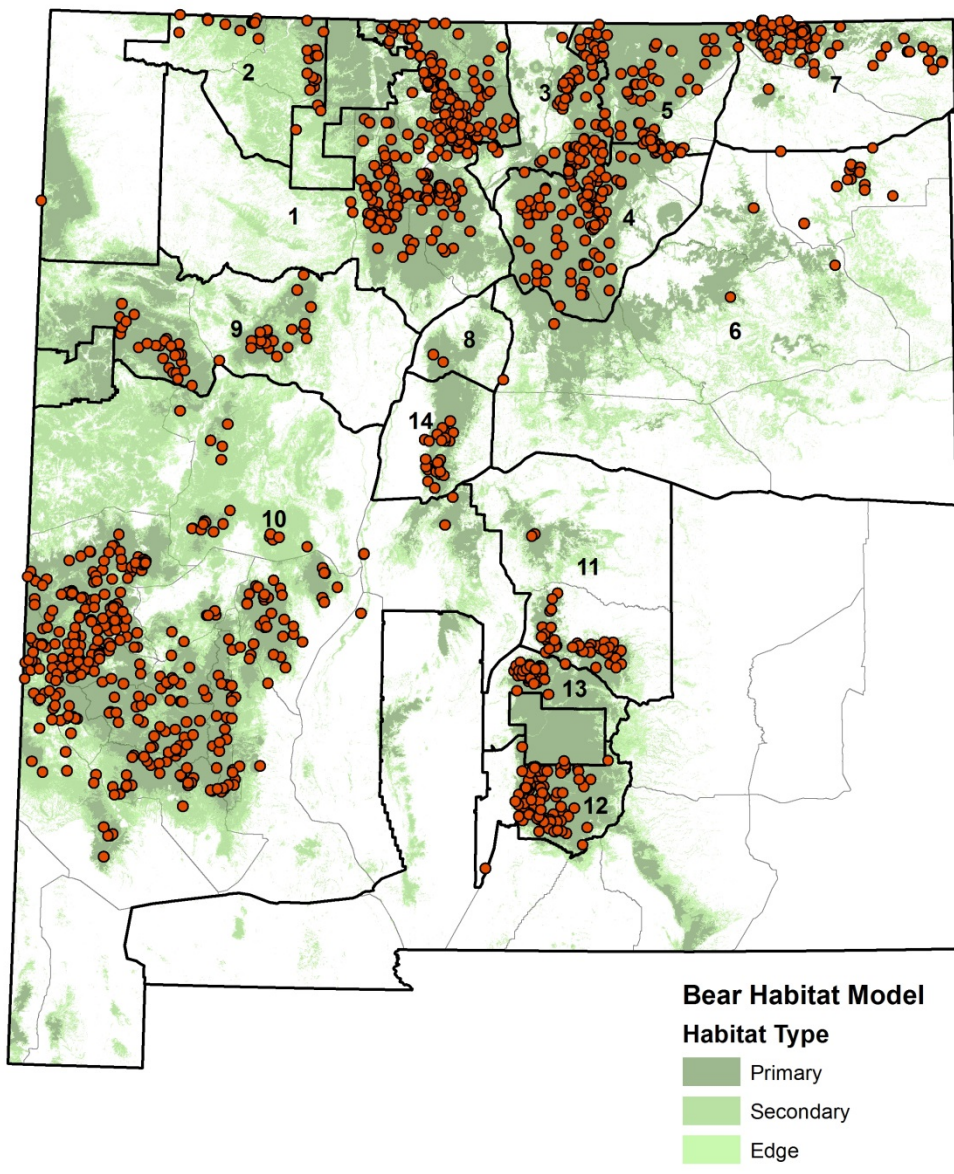
Mountain Range	Costello et al. (2001) Density Estimates (bears/100 km <sup>2</sup> )	Gould et al. (2015) Density Estimate (±SE; bears/100 km <sup>2</sup> )
Northern Sangre de Cristo	17.0	21.5 (±2.25)
Southern Sangre de Cristo	17.0	18.6 (±3.47)
Sandia	13.2	18.4 (±5.82)
Northern Sacramento	17.0	19.9 (±3.35)
Southern Sacramento	17.0	13.4 (±1.97)

# Bear Harvest

## Black Bear Mortality and Sport Harvest in New Mexico, 2000-2019



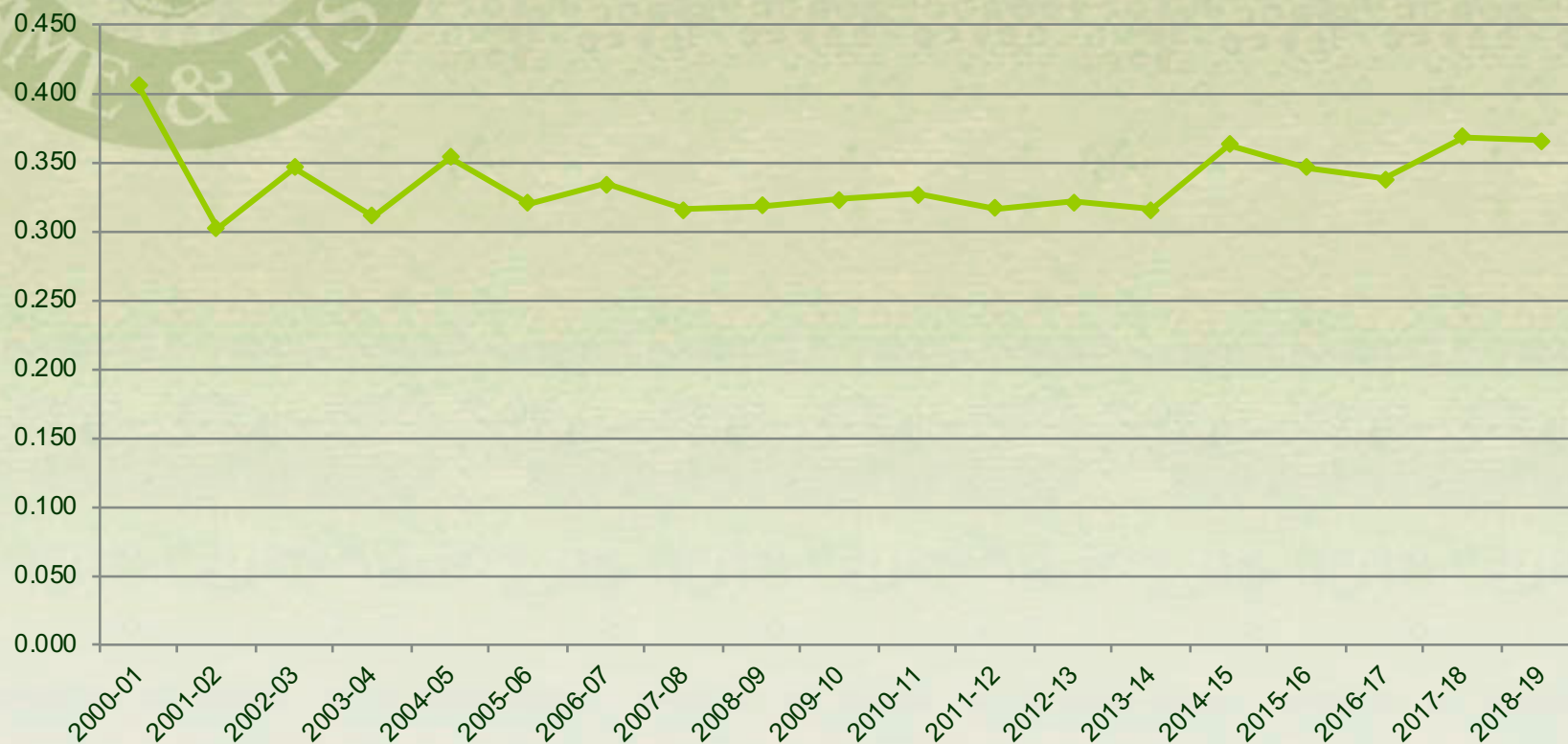
# Bear Harvest 2016 - 2019





# Bear – Catch Per Unit Effort

Catch Per Unit Effort for Black Bear Harvested 2000 - 2018



# Cougar Proposals

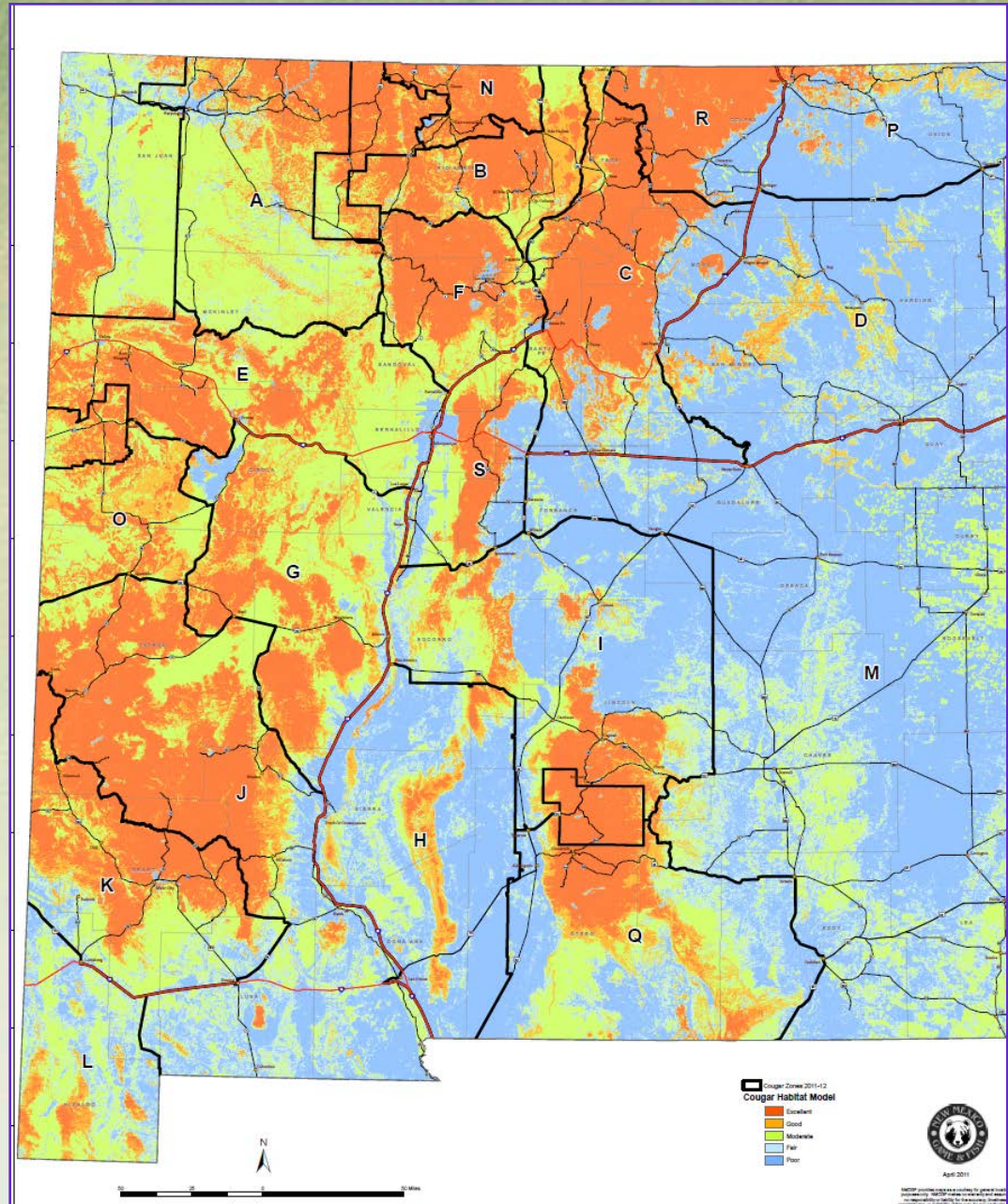


- No longer allow traps as a method for sport harvest
- Harvest limit adjustments to align with data
- Ongoing research to estimate zone-specific population size

# Cougar Harvest

Year	Sport Harvest (females)	Max Allowable Harvest	Depredation	Other	Total	# of Zones Closed
2016-17	245 (90)	749	21	35	300	2
2017-18	235 (93)	749	19	30	284	5
2018-19	344 (117)	740	25	40	409	4
<b>AVG</b>	<b>275 (100)</b>	<b>746</b>	<b>22</b>	<b>35</b>	<b>331</b>	<b>4</b>

# Cougar Habitat Map



# Cougar Sport Harvest Limits



- Potential adjustments to harvest limits for zones based on findings from recent NMDGF research and new findings in the literature

# Cougar Sport Harvest Limits

- No recommendation to increase maximum allowable harvest
- Statewide harvest limit has not been reached in the past
- Current harvest limits set 8 years ago
  - Recent data and user-group input suggest densities used to set those limits may be too high
- We are considering adjustments in some zones that will decrease limit

# Cougar: Proposal

## Manner and Method Requirements and Restrictions 19.31.11.10 NMAC

- No longer allow traps and foot snares for sport harvest on private and state trust land
  - Infrequently used method of take
    - 2016 – 2017: 4 trapped (300)
    - 2017 – 2018: 20 trapped (292)
    - 2018 – 2019: 13 trapped(409)

# QUESTIONS



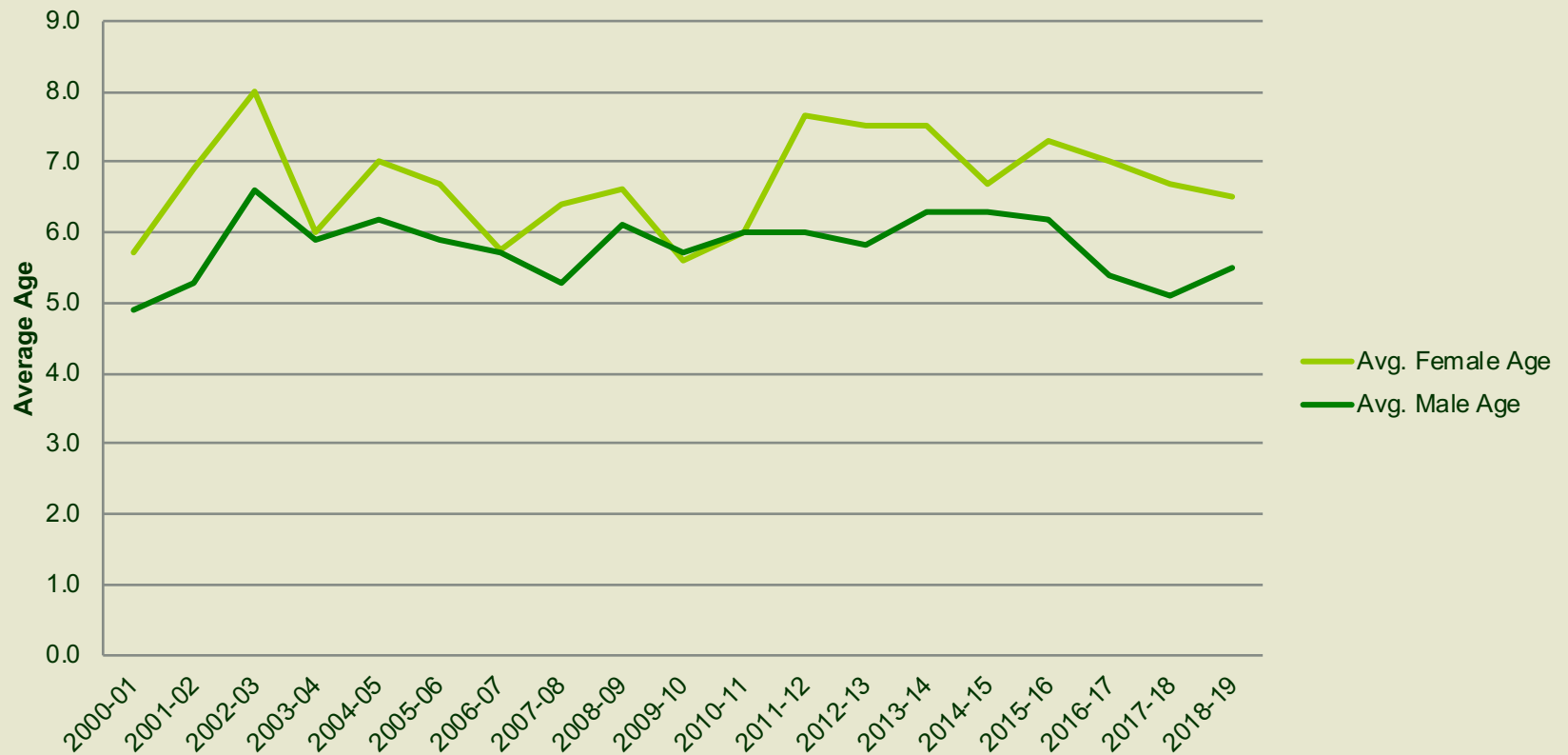


# Bear Harvest Limits

BMZ	Max	2016 Actual	2017 Actual	2018 Actual
1	158	138	70	121
2	15	7	16	5
3	65	27	42	26
4	109	21	39	50
5	92	21	30	21
6	33	4	11	5
7	35	31	31	30
8	11	0	0	2
9	36	18	16	20
10	146	98	154	143
11	36	17	22	21
12	33	30	30	32
13	16	16	13	13
14	19	10	12	7

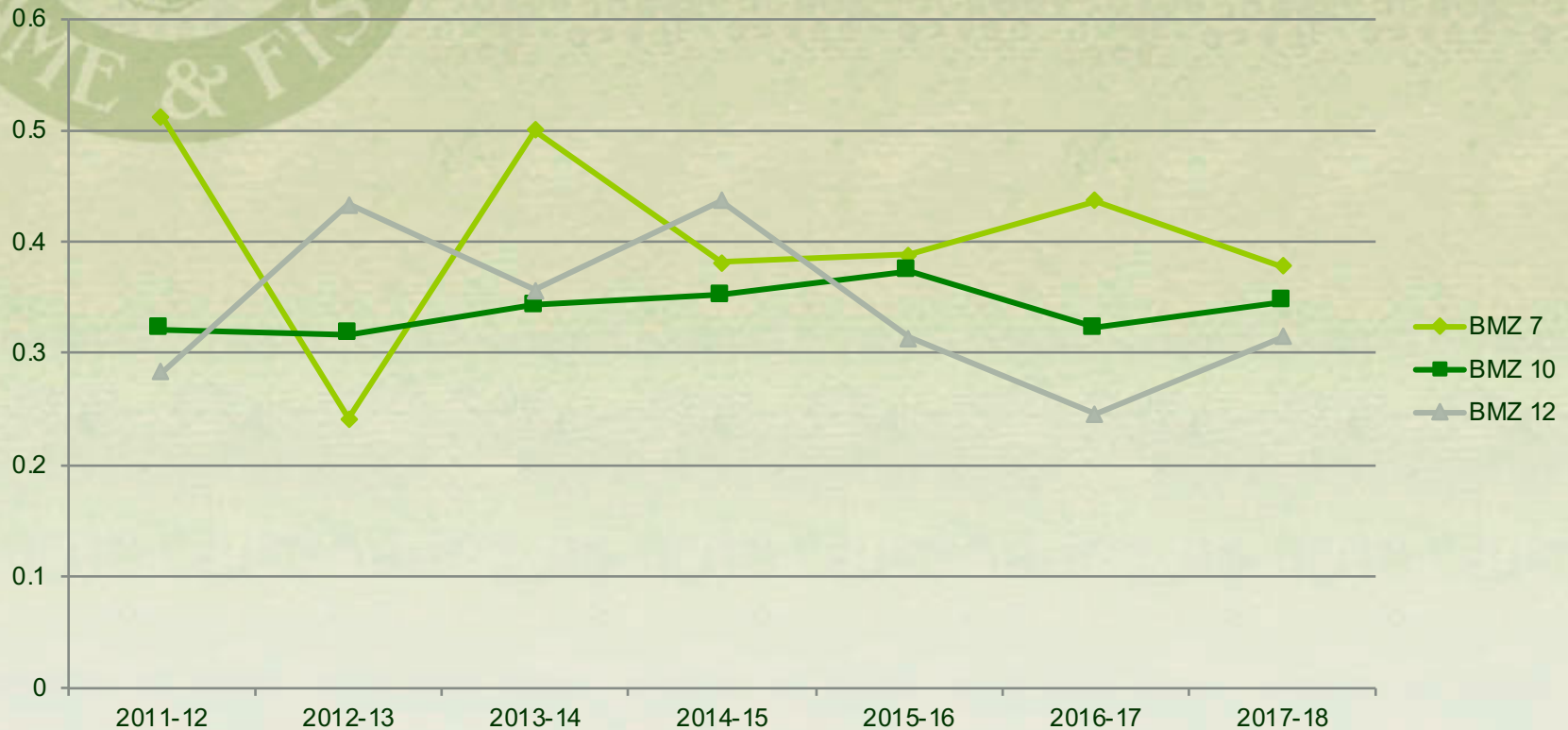
# Bear Age at Mortality

Average Ages of Bear Mortalities from 2000-2019



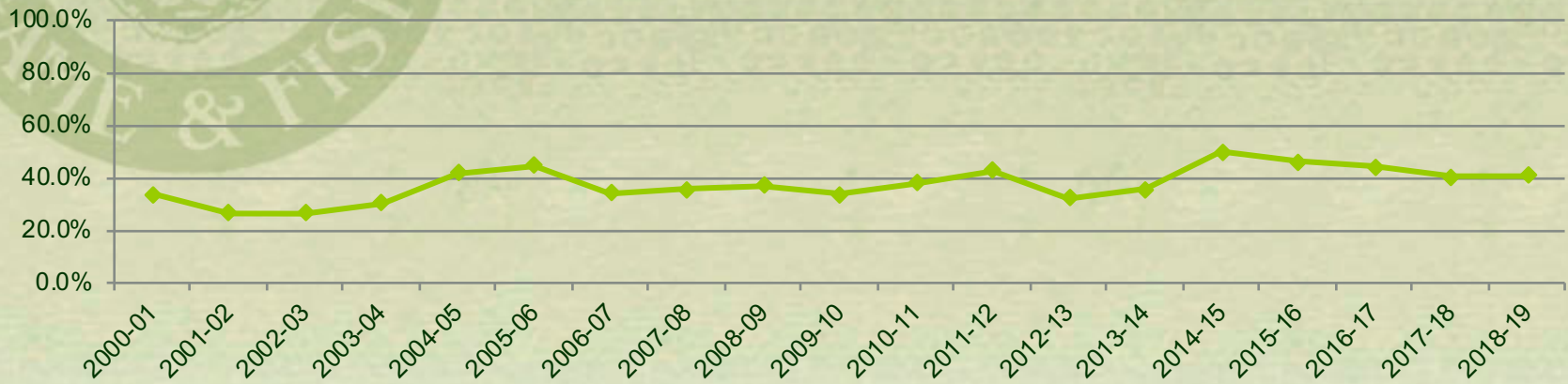
# Bear – CPUE in Zones that Close

Catch Per Unit Effort by BMZ

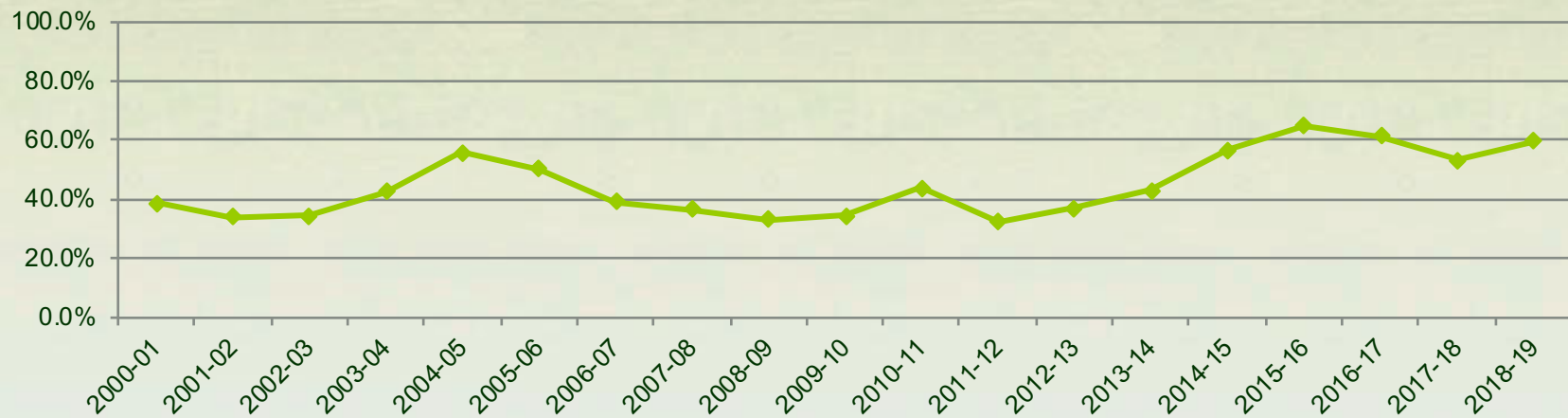


# Bear – Guided and/or with dogs

## Proportion of Harvest by Guided Hunters



## Proportion of Harvest through Use of Hounds



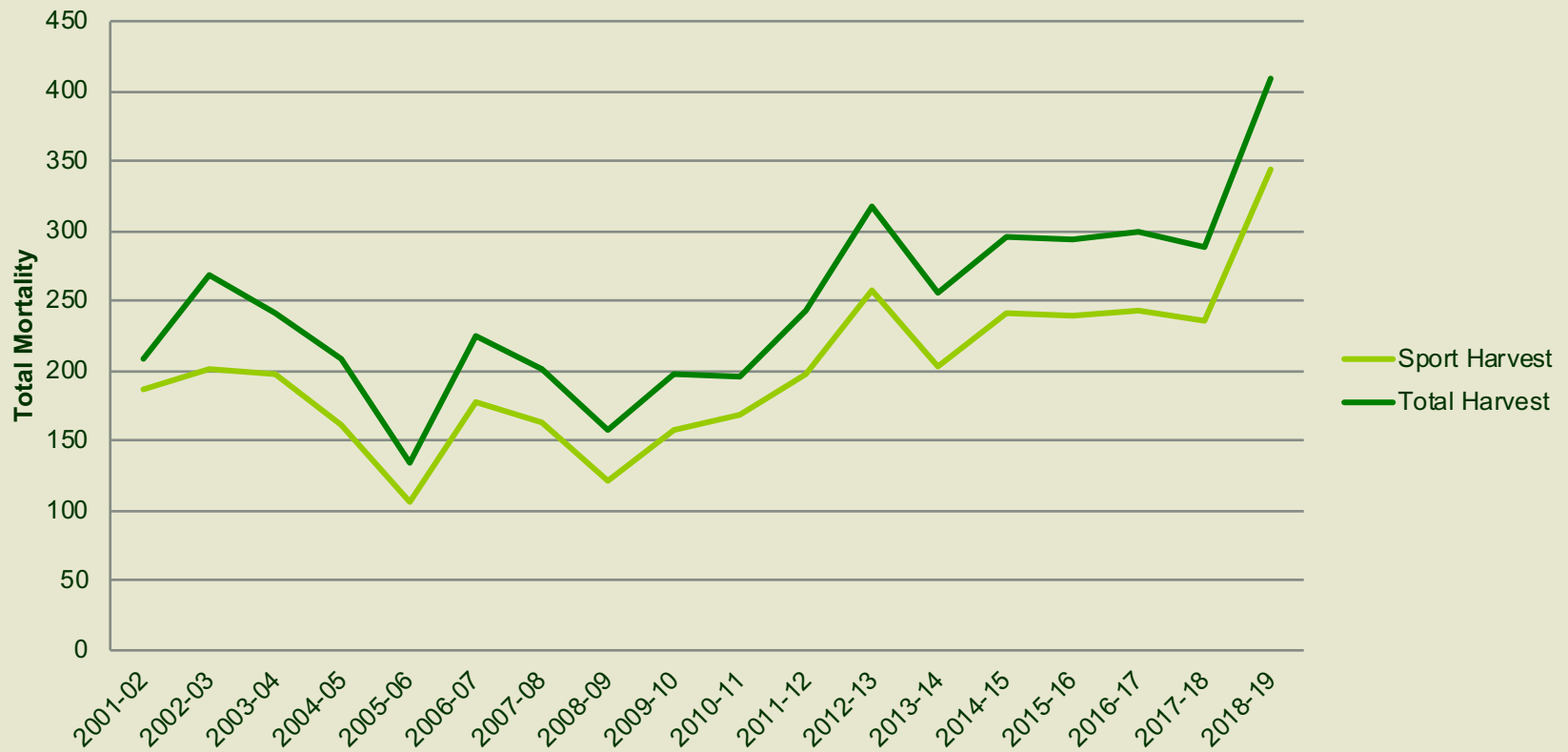
# Bear – Non-resident Harvest

Proportion of Harvest by Non-Resident Hunters

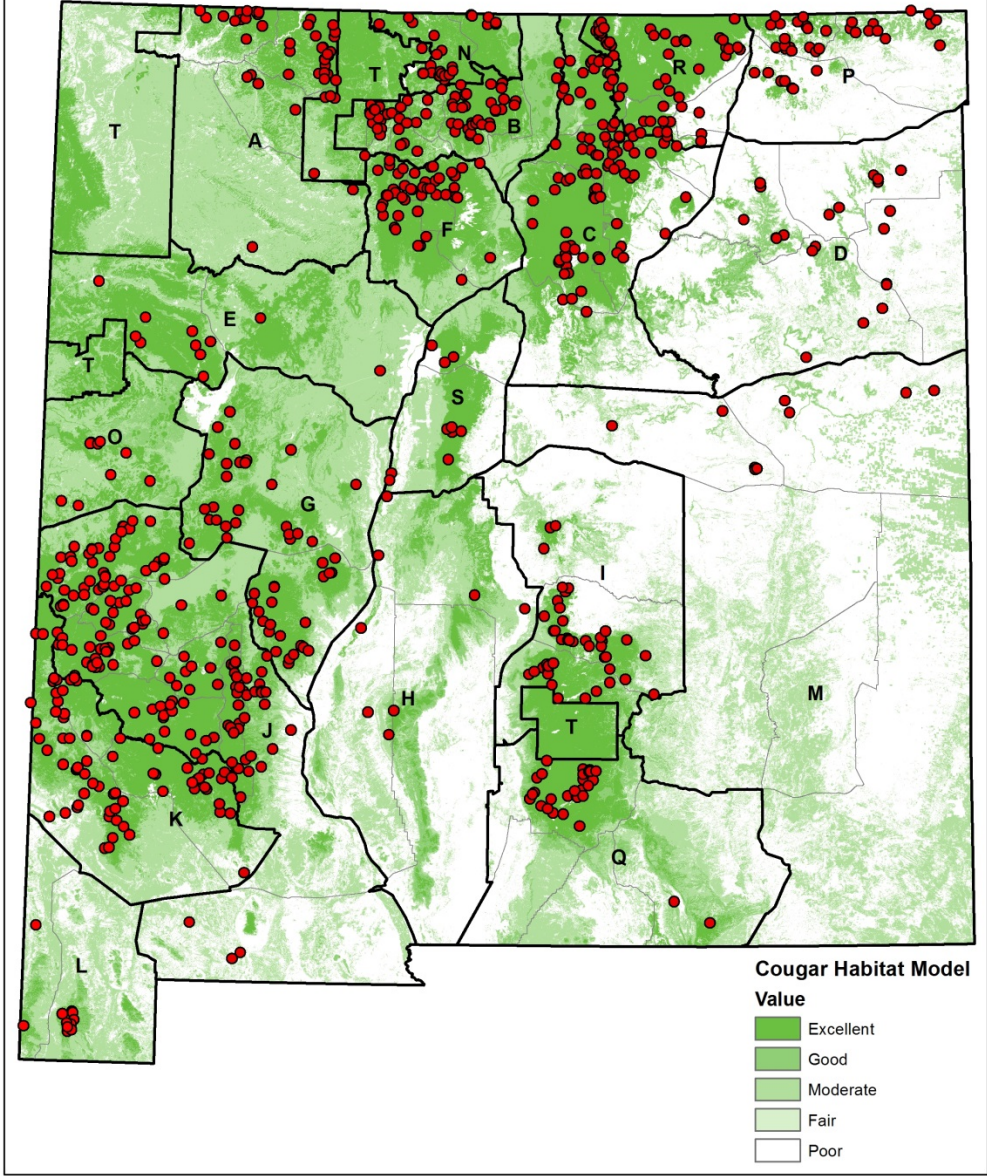


# Cougar Harvest

Total Mortality and Sport Harvest of Cougars in New Mexico, 2001 - 2019



# Cougar Harvest 2016 - 2019



# Cougar Sport Harvest Limits

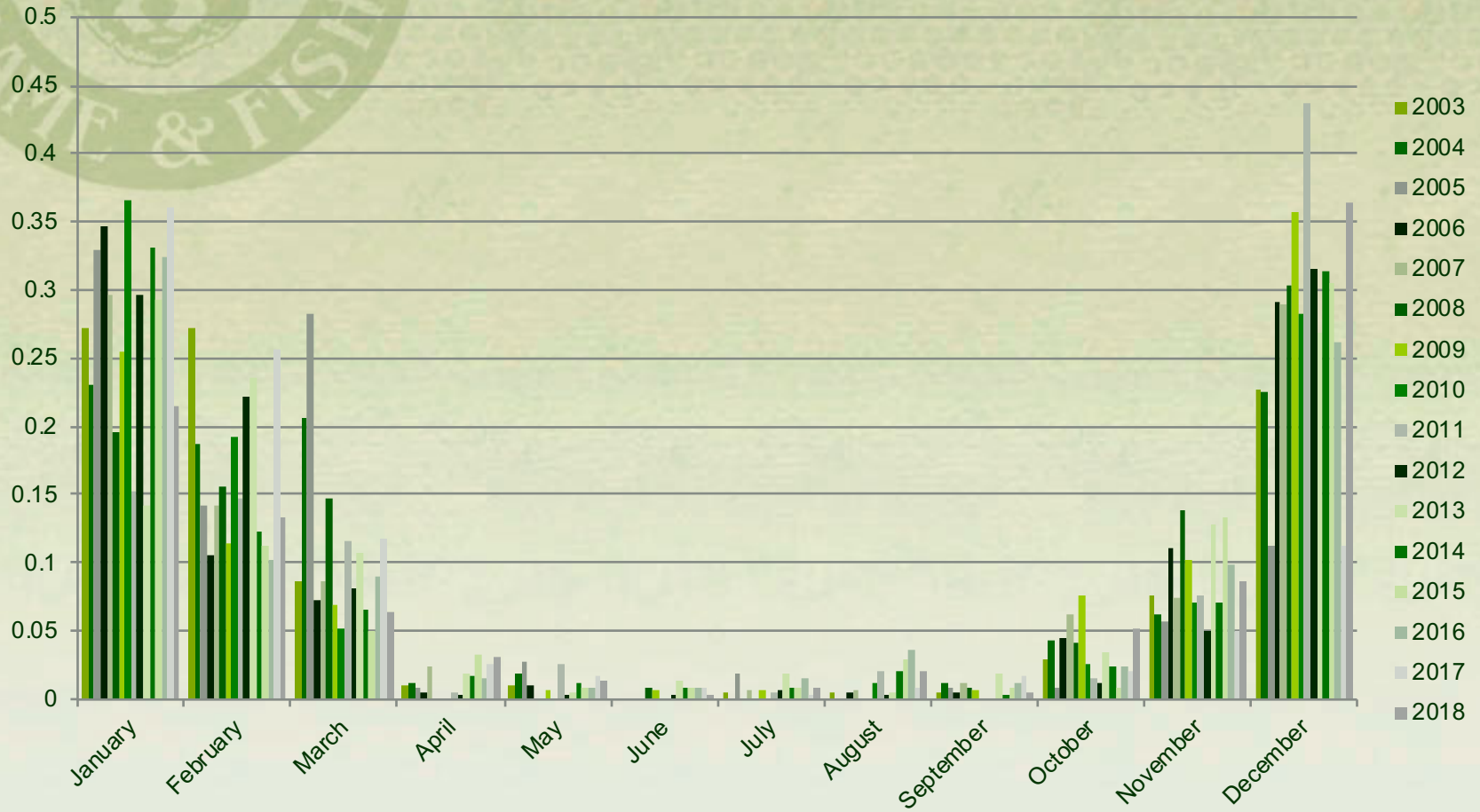
	<i>Max</i>	<b>2016</b>	<b>2017</b>	<b>2018</b>
A	42	12	14	21
B	28	22	20	27
C	85	25	24	47
D	23	5	11	8
E	50	1	3	7
F	46	11	16	20*
G	73	13	11	27
H	37	0	4	3
I	24	14	11	19
J	89	49	39	74
K	66	24	25	25
L	19	5	3	4
M	31	2	4	4
N	15	10	10	10
O	21	5	1	5
P	14	13	15	13
Q	35	13	7	9
R	26	16	17	17
S	25	4	3	4

\*2018 CMZ F limit was reduced to 37



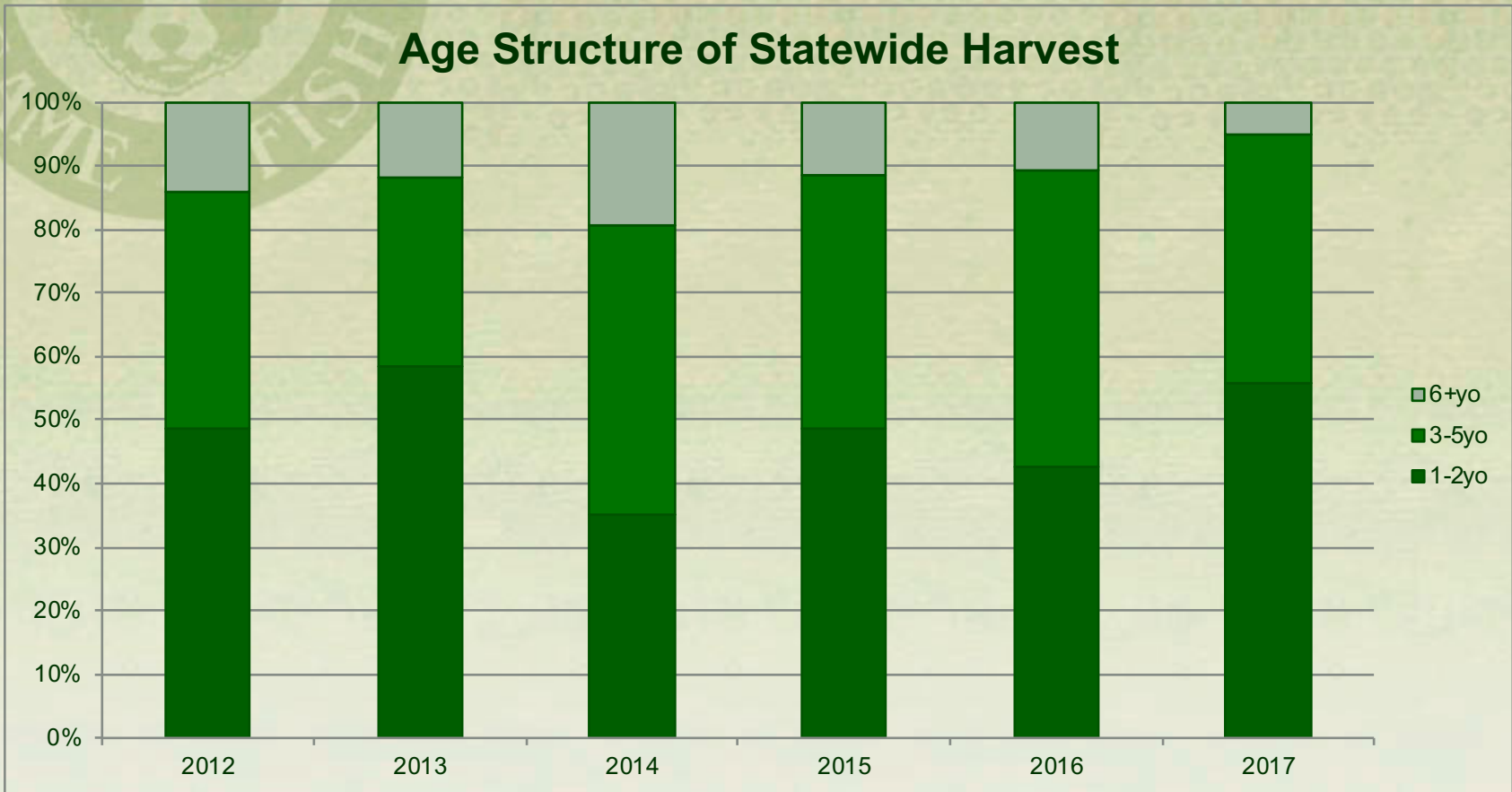
# Cougar Harvest by Month

## Harvest by Month 2003-2018



# Cougar Population Age Structure

## Age Structure of Statewide Harvest



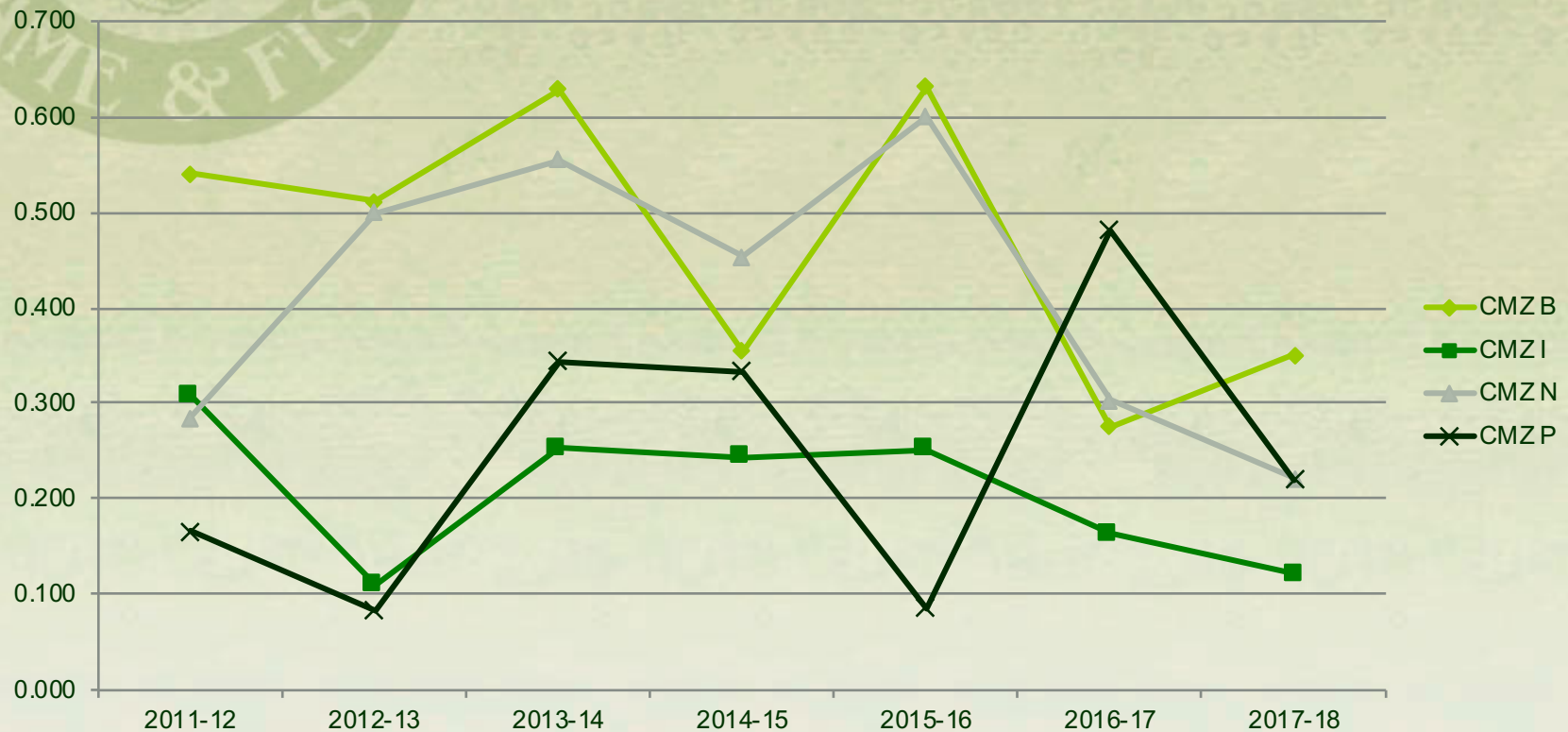
# Cougar: Catch Per Unit Effort

Catch Per Unit Effort for Cougars Harvested 2001 - 2019



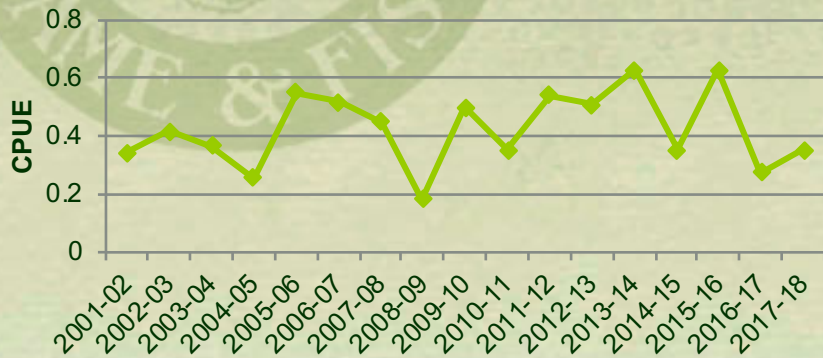
# Cougar – CPUE in Zones that Close

## Catch Per Unit Effort by CMZ

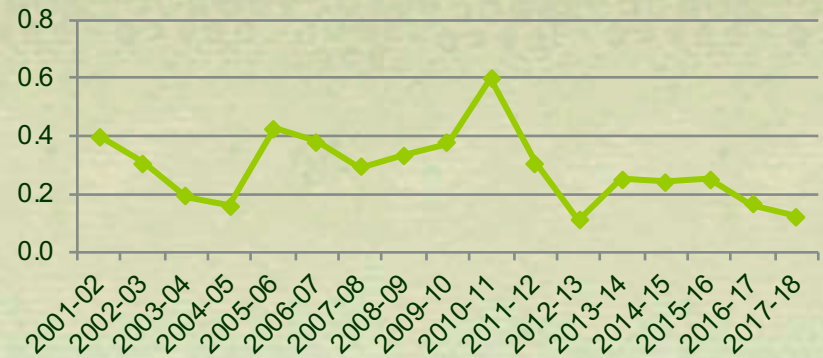


# Cougar – CPUE in Zones that Close

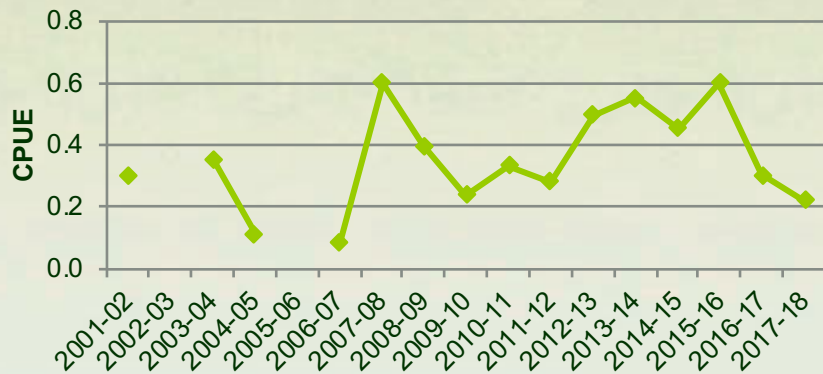
## CMZ B



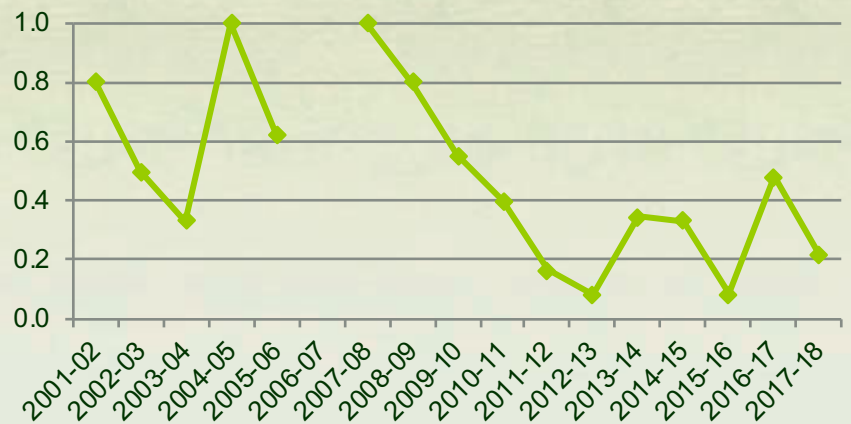
## CMZ I



## CMZ N

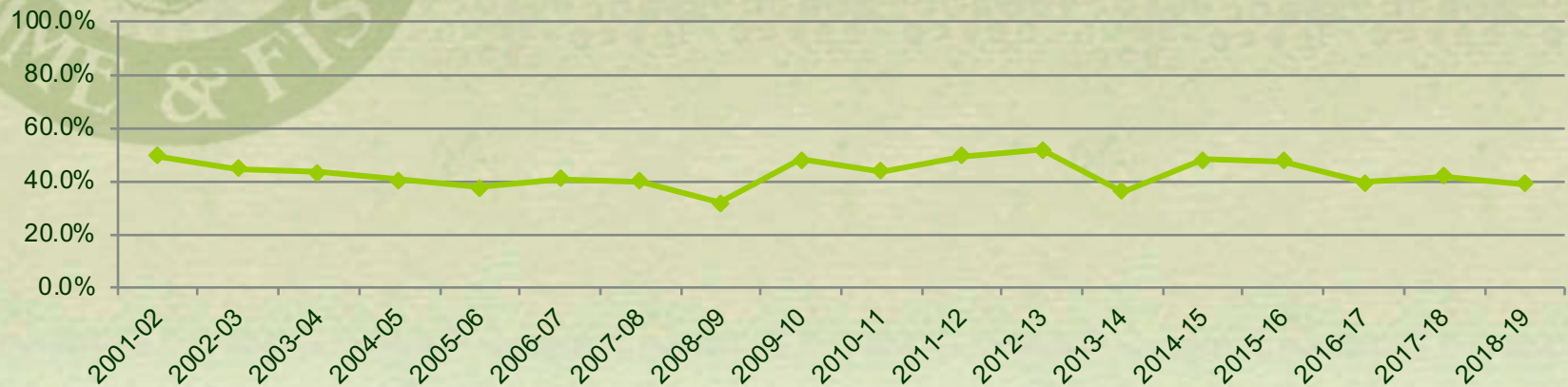


## CMZ P

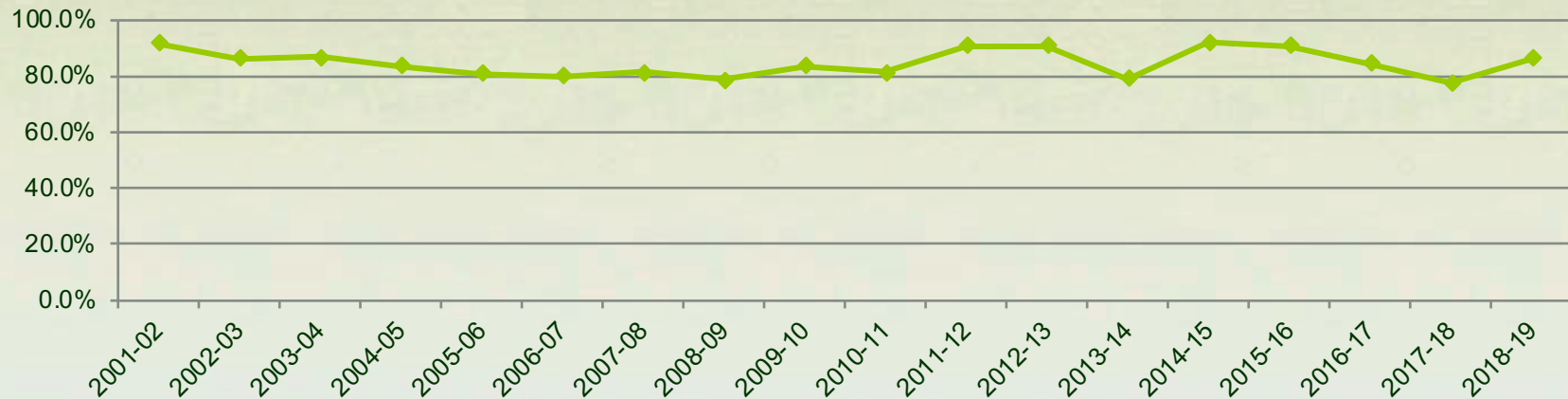


# Cougar – Guided and/or with dogs

## Proportion of Harvest by Guided Hunters 2001 - 2019

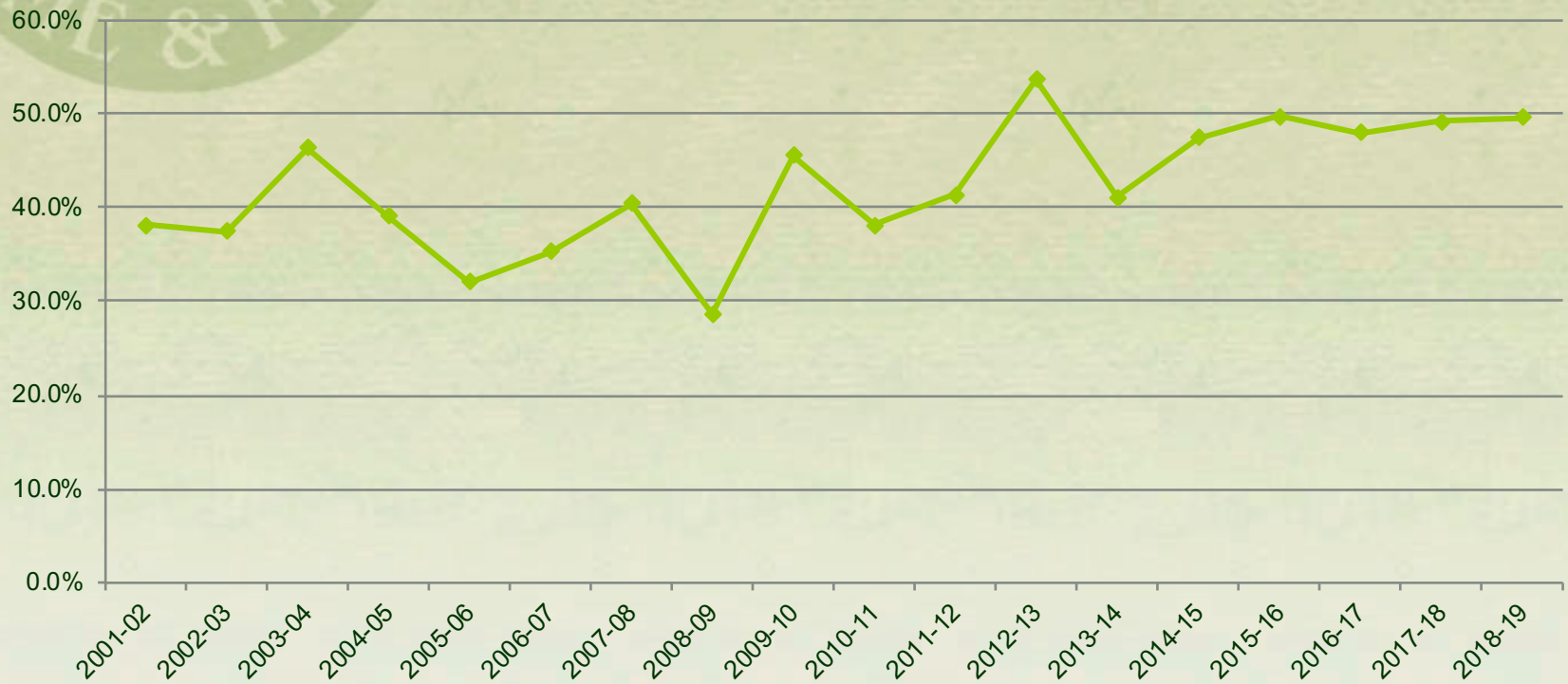


## Proportion of Harvest through use of Hounds 2001 - 2019



# Cougar – Harvest by Non-Residents

Proportion of Harvest by Non-resident Hunters 2001 - 2019



# Cougar – Harvest both tags or additional tags

	2016	2017	2018
Harvested 2	13	22	23
Harvested > 2	2	1	4



# Bear : Proposal and Viable Alternative

## Alternative

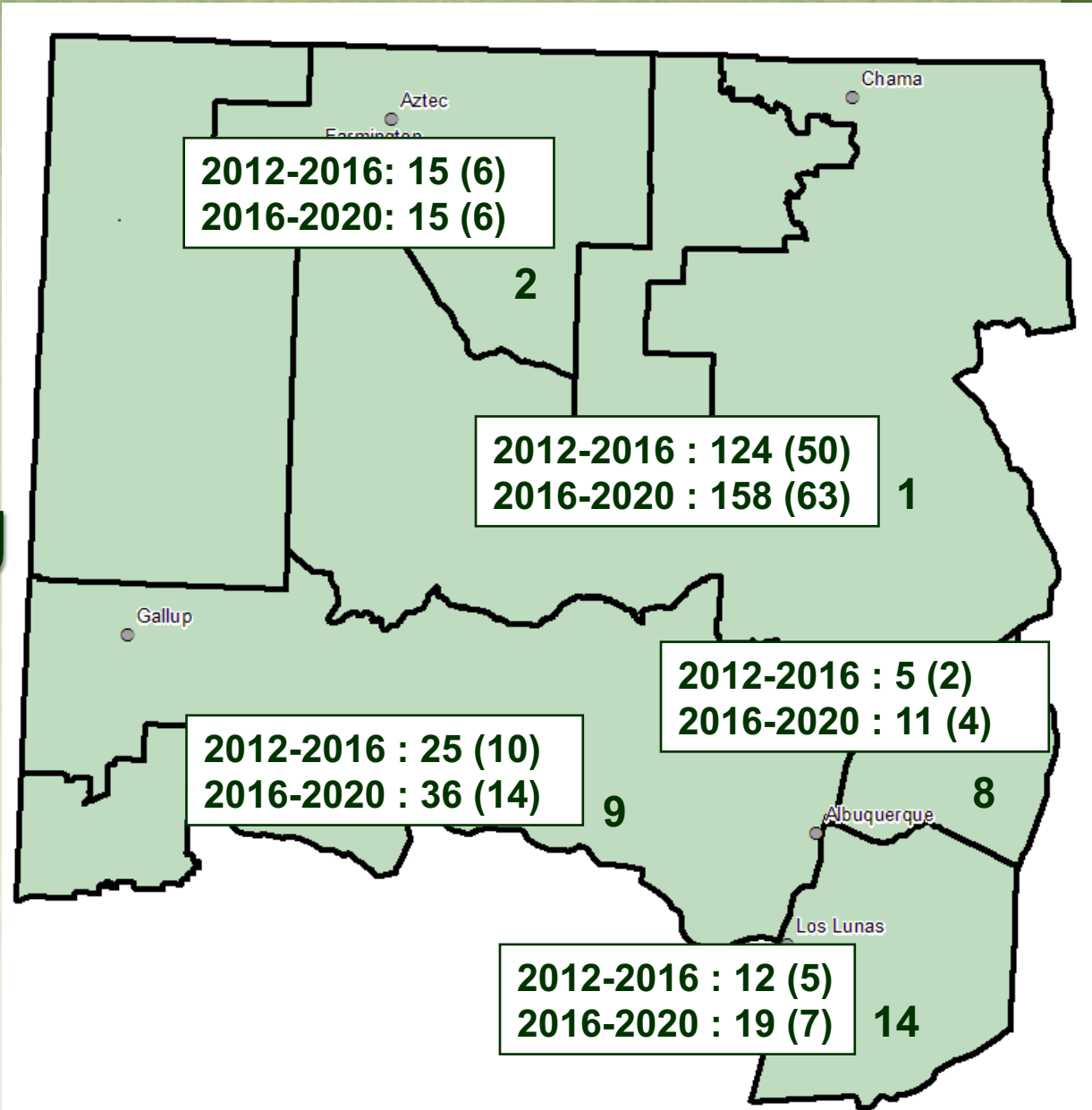


**Bear Hunting Seasons**

**19.31.11.11**

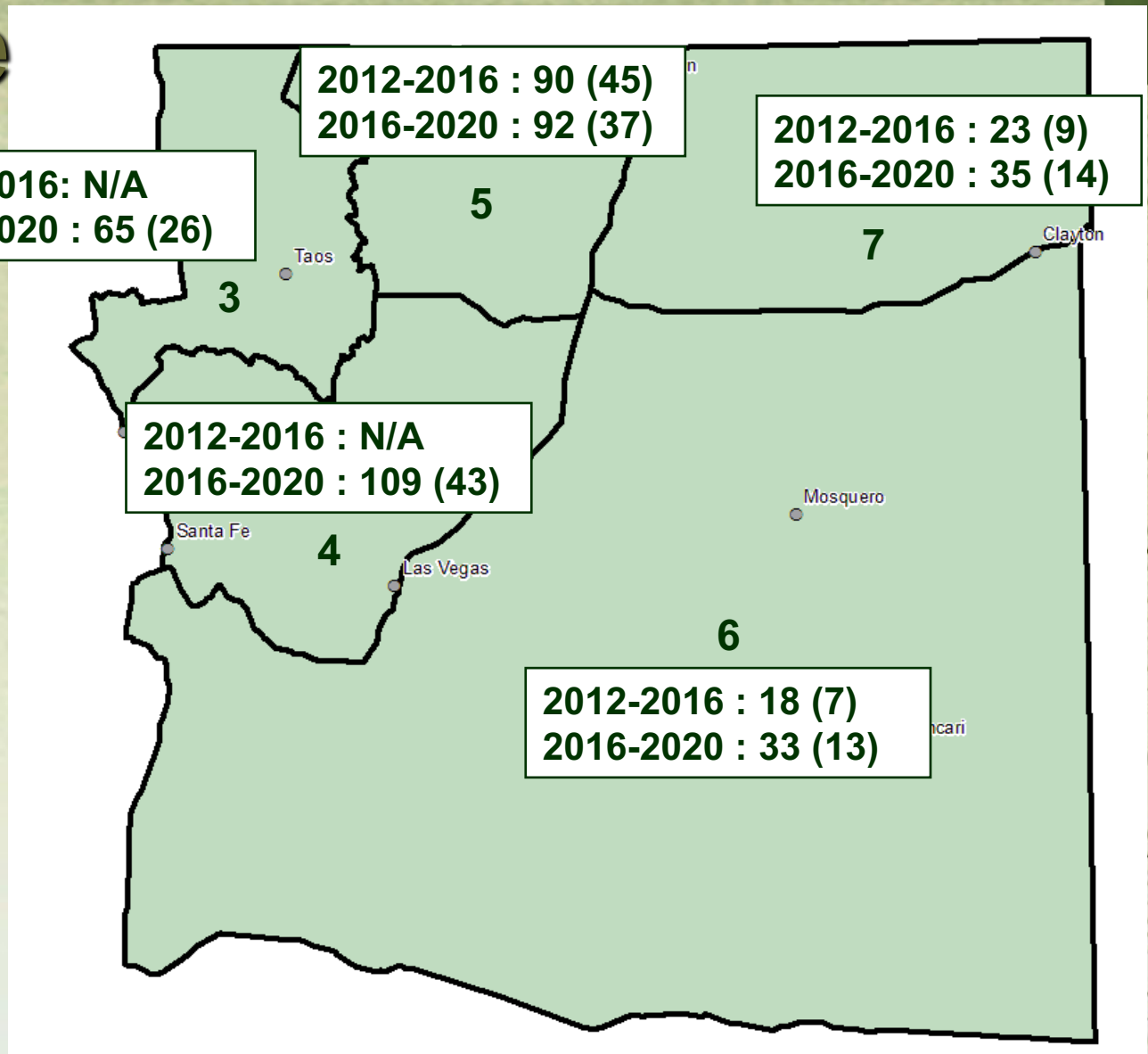
**NMAC**

**NW Area**



# Bear : Proposal and Viable Alternative

**Bear Hunting Seasons**  
**19.31.11.11**  
**NMAC**  
**NE Area**

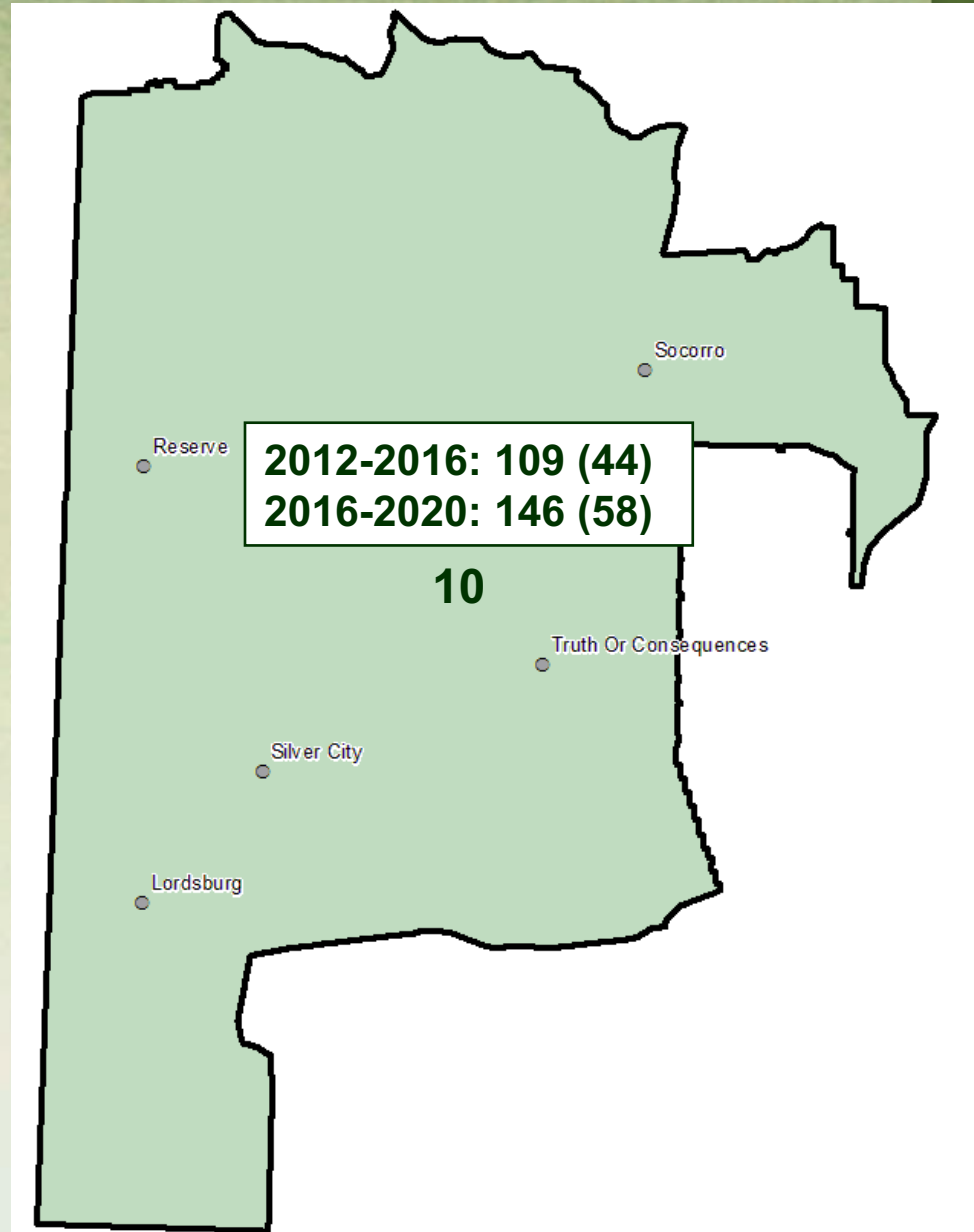


# Bear: Proposal and Viable Alternative



**Bear Hunting  
Seasons  
19.31.11.11  
NMAC**

**SW Area**



# Bear: Proposal and Viable Alternative

## Alternative

**Bear Hunting Seasons**

**19.31.11.11**

**NMAC**

**SE Area**

