WYOMING MOUNTAIN LION MORTALITY REPORT

HARVEST YEARS: 2022–2024

1 September, 2022 – 31 March, 2025

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INTRODUCTION

The following report contains a synthesis of data related to mountain lion management in Wyoming from 1 September 2022 (Harvest Year [HY] 2022) through 31 March 2025 (HY 2024). The results represent an analysis of the current 3-year cycle of mountain lion management in Wyoming since Commission approval of the Wyoming Game and Fish Department (WGFD) Mountain Lion Management Plan in 2006 (WGFD 2006), this cycle being the 6th since the management plan's inception. Data is summarized for Mountain Lion Management Units (MLMU) or Data Analysis Sub-units (DAU; units within the larger West MLMU) and presented by hunt area to estimate local sub-population function (Appendix A). Statewide population-level harvest data are synthesized by trend data from the hunt area and management unit levels. These data are intended to assess trend of mountain lion population status and to evaluate the efficacy of management strategies. These management strategies relate to mountain lion mortality, population status and viability, as well as how harvest relates to other issues pertaining to mountain lion ecology in Wyoming. The mandatory harvest registration form and tabulated data applicable to the current management cycle is also provided in Appendices E & F.

Mountain lion mortality data were gathered annually from 32 hunt areas grouped into five MLMUs across Wyoming (Figure 1). The boundaries of MLMUs encompass large areas with contiguous habitat and topographic features indicative of high quality mountain lion habitat which represent landscape-level mountain lion populations. Within hunt areas, mortality limits are developed based upon the desired local population trend. If a mortality limit was reached, the hunt area automatically closed; otherwise hunt area closure occurred at the end of the harvest season.

During mandatory inspections of harvested animals, many variables were recorded including: harvest date, location, sex, lactation status, estimated age, number of days spent hunting, use of dogs, other lions observed, as well as several other parameters. Skulls and pelts were generally presented in unfrozen condition so teeth could be removed and to provide evidence of sex and lactation status. Lactation status was used to determine age class for female mountain lions. The information gathered during inspection was used to assess sex/age structure of harvested animals. In addition to harvest data all known mortalities were documented and quantified to better assess trends related to mountain lion mortality and determine a total influence related to human-caused mortality of mountain lions throughout Wyoming.

The Wyoming Mountain Lion Management Plan supports an adaptive management process, enabling Department personnel the ability to evaluate management changes as they occur by sustaining mountain lion populations in core habitat at varying densities depending on management objectives across the State. For more in-depth explanation of data analysis techniques, harvest criteria, and discussions on statewide mountain lion management, access the Mountain Lion Management Plan (WGFD 2006) available from the Large Carnivore Section or through the WGFD Website: http://wgfd.wyo.gov.

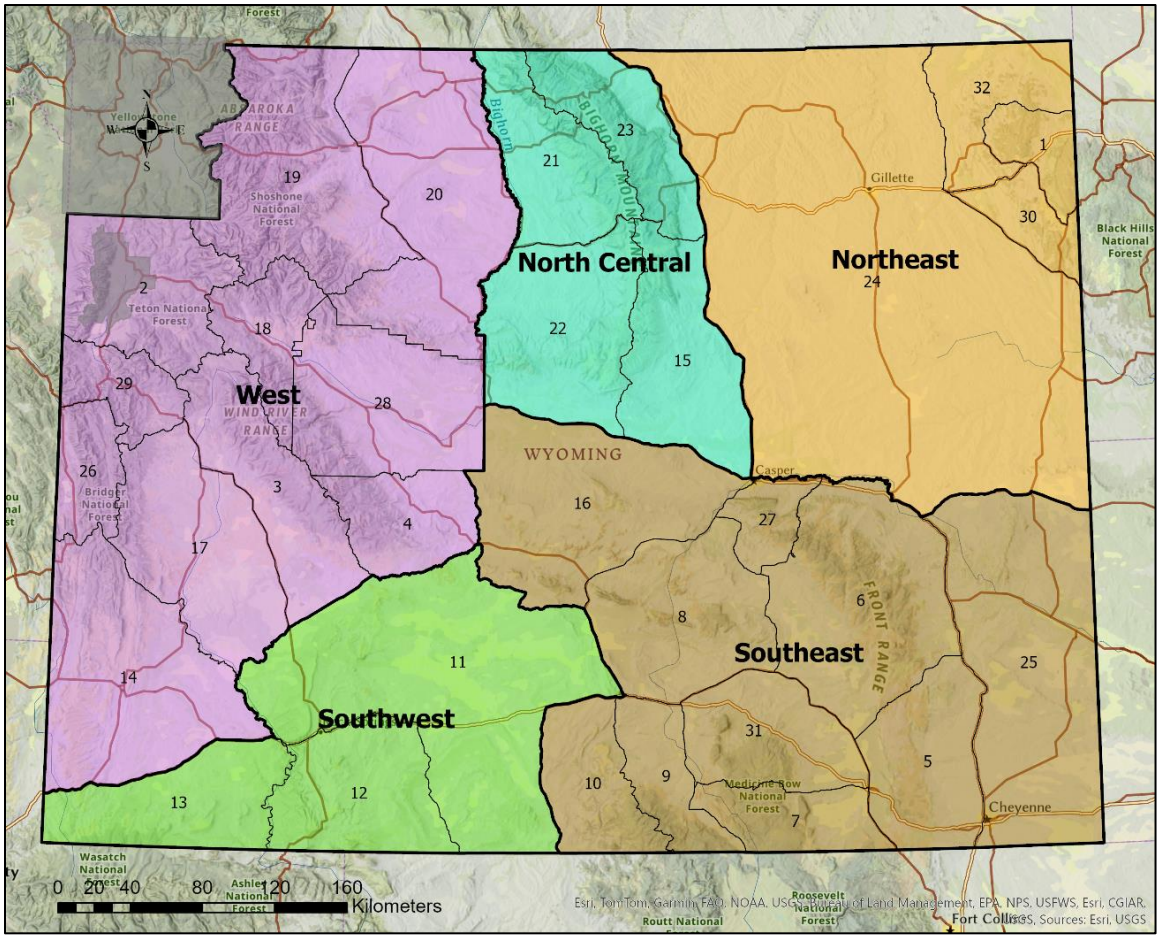

Figure 1. Hunt area and mountain lion management unit map for mountain lions in Wyoming, HY2022–HY2024. Due to the large size of the West MLMU, this unit is separated into 3 Data Analysis Units (DAUs) including the Absaroka DAU (HAs 19 and 20), Wind River DAU (HAs 3, 4, 18, and 28), and Wyoming Range DAU (HAs 2, 14, 17, 26, and 29).

WGFD does not estimate mountain lion abundance or densities to manage populations. Rather, population trends are assessed through sex and age composition of mortality data (Anderson and Lindzey 2005) and an evaluation of the total mortality documented in relation to overall suitable mountain lion habitat. The density of mountain lion mortality quantified by habitat is the driver of the monitoring criteria used to evaluate management. Management objectives for MLMUs and hunt areas are determined by balancing mountain lion life history and ecology, public input, and biological requirements for sustainable mountain lion populations across the landscape. The sex and age composition of harvested mountain lions is compiled and analyzed for each hunt area, MLMU, DAU and statewide. Analyzing data by management units allows managers to evaluate harvest within specific hunt areas and assess the effects of harvest on regional populations. If observed trends are consistent with objectives set forth for each hunt area, changes in mortality limits are not necessary. However, if trends deviate from hunt area objectives, mortality limit fluctuations may be recommended for the next three-year management cycle. The three-year management cycle is utilized in order to allow enough time for mountain lion populations to respond to management changes and to identify trends from data collected. The 3-year

management cycle for mountain lions was developed and implemented for multiple reasons. Perhaps most importantly a 3-year window allows adequate time to evaluate population response and trends resulting from allowable harvest. The cycle is also based on the life history of mountain lions to incorporate at least one full breeding cycle and concurrent dispersal dynamics of mountain lions, as well following research conducted in Wyoming evaluating dynamics of a mountain lion population subjected to reductions and adaptive management in addition to data incurred to evaluate local mountain lion populations.

WGFD utilizes a regional management schematic based on source/sink/stable population dynamics (CMWG 2005) for managing mountain lions. These terms were developed by researchers and managers based on natural movements and mountain lion populations at a landscape level, where source management is akin to low levels of human-caused mountain lion mortality in order to allow for natural emigration of mountain lions. Conversely, the objective of sink management is to reduce a local population. As in all facets of wildlife management, quantification of categorical data does not necessarily fit a black and white viewpoint, but rather is more indicative of a color spectrum; therefore categorization of hunt areas occurs on a continuum from Source → Sink based on documented mortality levels and population/harvest composition. Managing for a combination of increasing, stabilizing, or decreasing mountain lion subpopulations within MLMUs (i.e., at the hunt area level) provides flexibility to address local management concerns, while maintaining overall population viability at a landscape level. The Wyoming Mountain Lion Management Plan suggests managers strive toward a combination of Source, Stable, and Sink hunt area objectives in order to maintain population viability at landscape (i.e., MLMU) and statewide levels (WGFD 2006). Hunt area management objectives include:

1. Sink management: REDUCE local mountain lion densities.
    a) Maintain density of human-caused mortality >8 mountain lions/1,000 km^2 (386 mi^2) suitable habitat.
    b) Achieve adult female harvest >25% of total harvest for two seasons.
        (Female mountain lions that have previously or are currently lactating are considered *adult females*.)
    c) Progression in mean age of harvested adult females should decline to <5 years old.

2. Stable management: STABILIZE local mountain lion densities.
    a) Maintain human-caused mortality density between 5-8 mountain lions/1,000 km^2 (386 mi^2) suitable habitat.
    b) Adult female harvest should not exceed 25% of total harvest for more than 1 season.
    c) Maintain intermediate aged adult females (mean approx. 4-6 years old) in the harvest. Adequate age evaluation may require averaging age data over time to achieve meaningful sample sizes.

3. Source management: MAINTAIN OR AUGMENT local mountain lion densities.
    b) Maintain density of human-caused mortality <5 mountain lions/1,000 km^2 (386 mi^2) suitable habitat.
    c) Maintain adult female harvest <20% of total harvest.

d) Maintain older-age adult females in the population (>5 years old). This will be difficult to identify without additional sampling due to low sample size from harvest, but would be expected for lightly hunted populations.

It is important to note that monitoring criteria (mortality density, proportion of adult females in the harvest, average age of adult females harvested) used to assess population status cannot be used singly when evaluating management objectives. Density of human-caused mountain lion mortality, when coupled with percentage of adult females harvested and their subsequent age, is the most effective way to assess if a hunt area is moving toward a desired management direction over a three-year period. The quantification of hunt area status is derived from an assessment of the three monitoring criteria in combination and additional pertinent data related to immigration/emigration from adjacent lion populations and habitat availability. Finally, the Large Carnivore Section (LCS) continues to collect new harvest information (e.g., tooth laboratory results), correct any errors, incorporate compelling data sources, and update habitat estimates. Therefore, information in this report supersedes previous reporting as the most current and up to date information on mountain lion management in Wyoming.

Acknowledging that managers rarely have precise information to measure success of management objectives, that mountain lion densities vary regionally, and that the criteria proposed here are general guidelines; these criteria should be compared to one another and applied adaptively to evaluate efficacy of management prescriptions. Applying management objectives in an adaptive management framework, where density of human-caused mortality, harvest composition, and age of harvested adult females are monitored relative to expectations (criteria above) allows assessment of whether or not management objectives are being achieved and if management strategies need to be modified to produce desired outcomes.

Relevant Changes Implemented for the 6th Management Cycle (HY2022 – HY2024)

It is important to note changes that have occurred in management criteria and regulations that impact mountain lion management in the state between "management cycles". Scientifically assessing and quantifying the impacts of harvest on mountain lion populations, in addition to how lion management actions relate to other issues relevant to wildlife management in Wyoming, are essential for sound decision making. Evaluating and adapting management strategies (adjustment of mortality limits, season length) is the basis of adaptive harvest management. Primary changes related to general harvest regulations incurred for HY2022–2024 were:

- Boundary changes impacting Hunt Area 22 and Hunt Area 28 across the Northcentral Management Unit and Wind River DAU (Figure 2). Boundary changes were implemented to simplify Hunt Area 28 to include all non-tribal lands within the boundaries of the Wind River Reservation. While this boundary alteration had minimal impact on winter habitat estimates, Hunt Area 28 mortality limit was increased by one to account for the addition.

- In addition to standard assessments and changes to mortality limits across various hunt areas implemented for the HY2022 – HY2024 cycle, there was a temporary change adopted for HY 2023 – 2024 in response to severe winter conditions of 2022-2023 impacting local mule deer herds in the Wyoming Range. This change was to allow for additional mountain lion harvest opportunity in the Wyoming Range DAU (HAs 14, 17, 26, & 29) in response

to pressure to provide any and all potential benefits to mule deer following unprecedented mule deer winter mortality. Therefore, mortality limits within Wyoming Range DAU hunt areas were increased by an additional 50% for the remainder of the management cycle (HY2023 – HY2024). In total, this change increased annual allowable harvest from 46 to 70 mountain lions within the DAU.

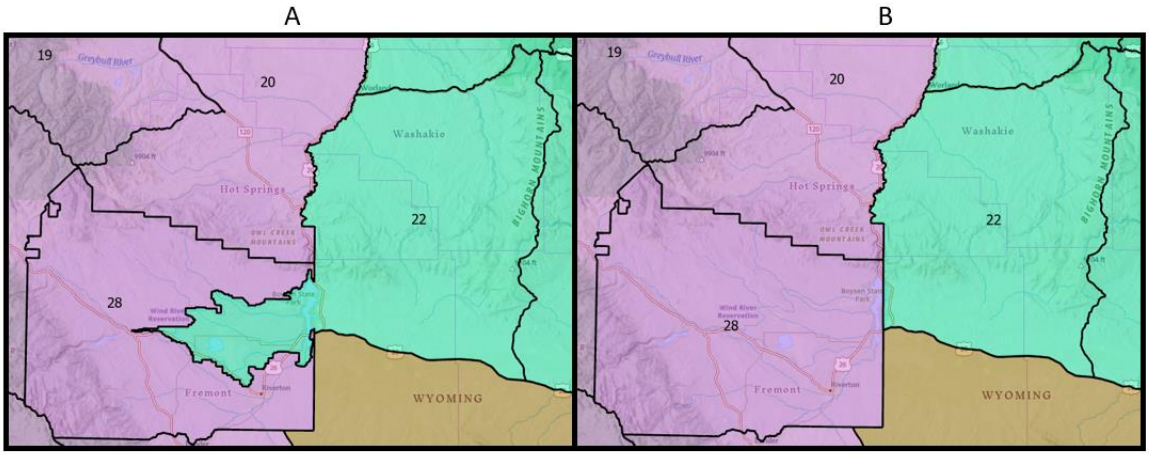

Figure 2. Previous boundary between Hunt Area 22 and Hunt Area 28 (A) and changes implemented before the HY2022 – HY2024 season cycle (B).

STATEWIDE ASSESSMENT

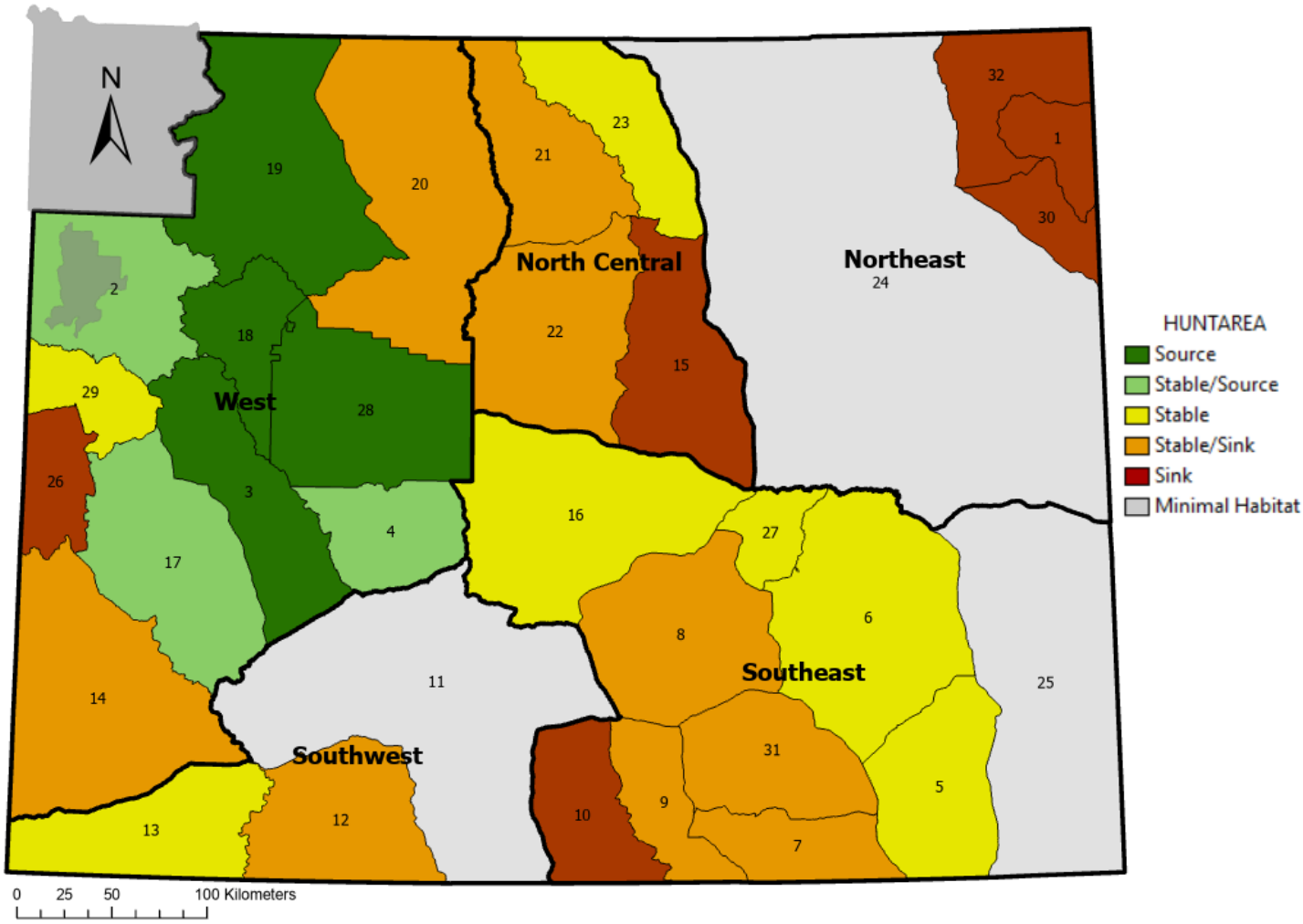

Figure 3. Map of population function for mountain lion hunt areas in Wyoming during the 6th management cycle, HY2022–HY2024.

The current management cycle assessment resulted in seven hunt areas exhibiting Source or Stable/Source trends, seven hunt areas showing Stable trends, and 15 areas showing Stable/Sink or Sink trends (Figure 3). Only two hunt areas across Northcentral, Northeast, and Southeast MLMUs have objectives implemented toward Stable/Source, with no Source area management objectives (Appendix D). Many areas have stabilized with less mature animals available for harvest, and more sub-adult animals are now represented on the landscape than in earlier HYs. These shifts are reflected in statewide trends (Figure 4 & Figure 5).

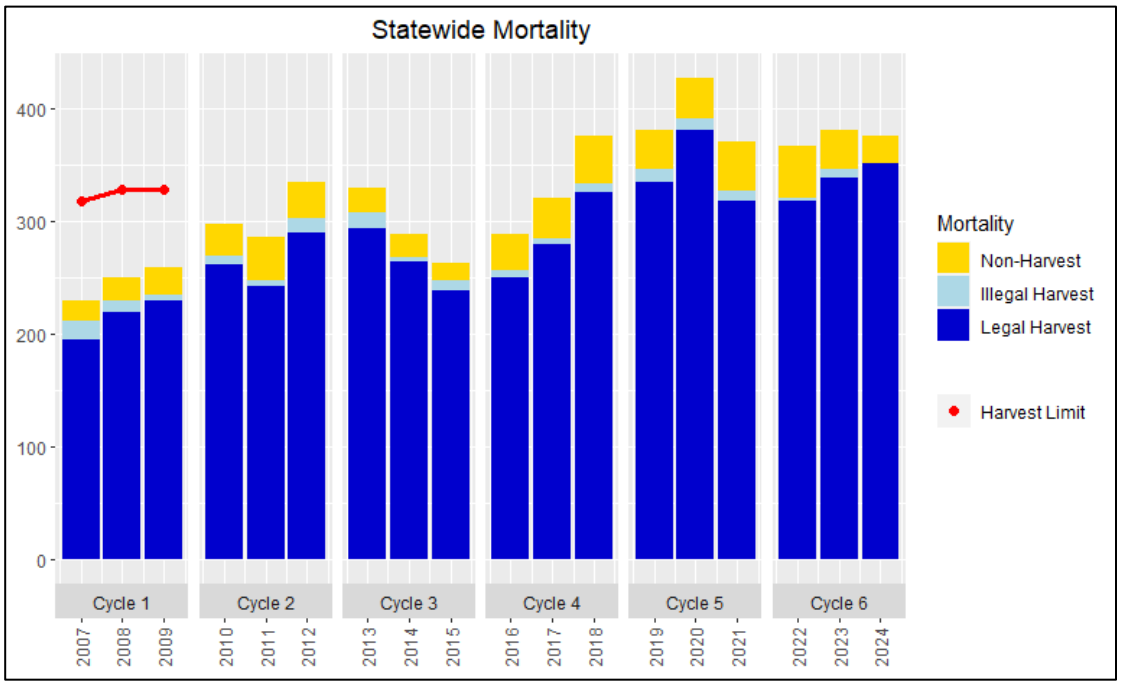

Figure 4. Statewide annual mountain lion harvest and mortality data for Wyoming, HYs 2007–2024. Some hunt areas allow unlimited harvest, therefore harvest limits are represented by the last applicable and numerical limit.

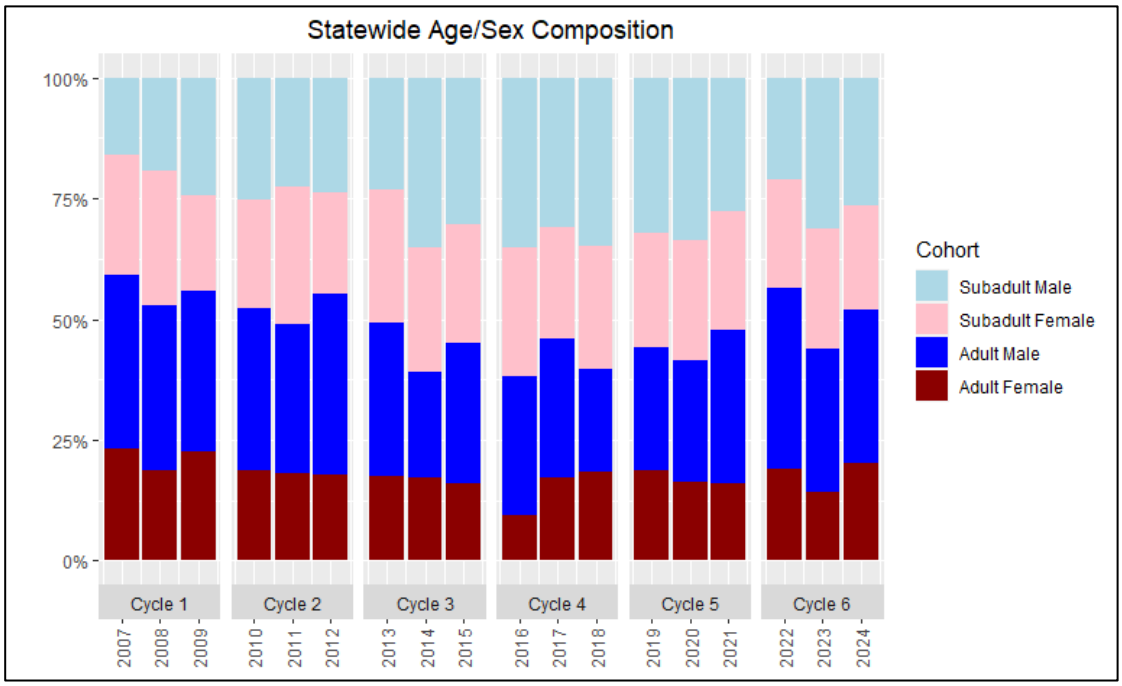

Figure 5. Statewide age and sex composition of mountain lions harvested in Wyoming, HYs 2007–2024.

It is important to note while mortality trends appear to have recently stabilized with an average of 345 mountain lions taken through harvest statewide since 2018 (Figure 4), the underlying dynamics of specific regions support these levels of mortality. Achieving many local management objectives toward sink status reveals the expected progression of 1) increased harvest that initially alters age structure toward sub-adult harvest, combined with 2) increased adult female harvest limiting reproduction, and 3) reductions in harvest likely driven by reduced availability and lower densities (dependent on adjacent immigration potential). For example, statewide harvest across the 2nd and 3rd 3-year cycles (HYs2007-2009 and 2010-2012) was largely an artifact of these processes in the Northeast MLMU. More recently, statewide increases from HY2018-HY2020 were supported by unprecedented harvest in the southern Bighorn Mountains which subsequently dropped for HA 15. Finally, increases in allowable harvest in the Wyoming Range currently maintain levels of statewide mortality. Therefore, highly variable and rotational harvest pressure underlies statewide mortality, and uncertainty remains whether statewide harvest will be or should be maintained at current levels as it relates to less quality hunts and reduced sex/age structure on a larger MLMU and potentially statewide level. Maintaining some level of social structure in mountain lion populations allows for stabilization of mountain lion densities and a larger dietary breadth (with older aged animals selecting for larger prey such as elk).

As in previous cycles, the use of dogs to pursue mountain lions continues to be the predominant hunting method in Wyoming. An average of 89.1% of harvests ocurred with the use of dogs during the 6th management cycle. However, during the 6th management cycle the annual timing of harvest shifted slightly from a typical peak in December to predominanty occurring in January (Figure 6).

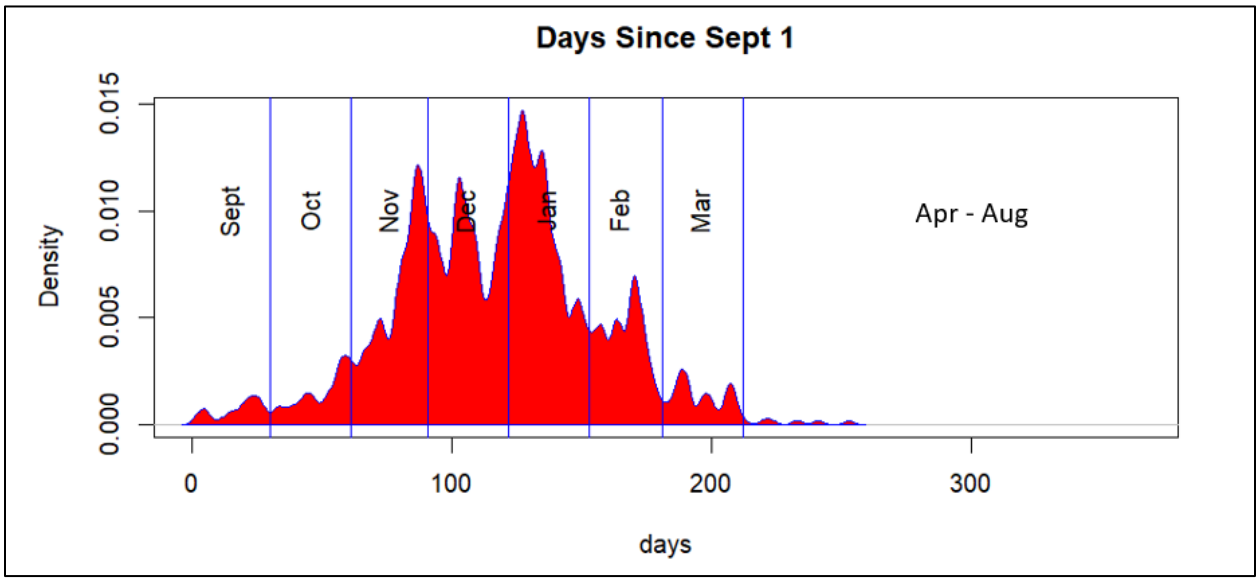

Figure 6. Timeline of statewide mountain lion harvest in Wyoming, HYs 2022–2024.

Statewide non-harvest and conflict

Non-harvest mortality typically follows the same trend as harvest numbers (Figure 7). Non-harvest mortality was comprised primarily of damage removals (41), incidental trap/snare mortality (18), vehicle collisions (24), and natural mortalities (19) identified by the Department during the 6th management cycle.

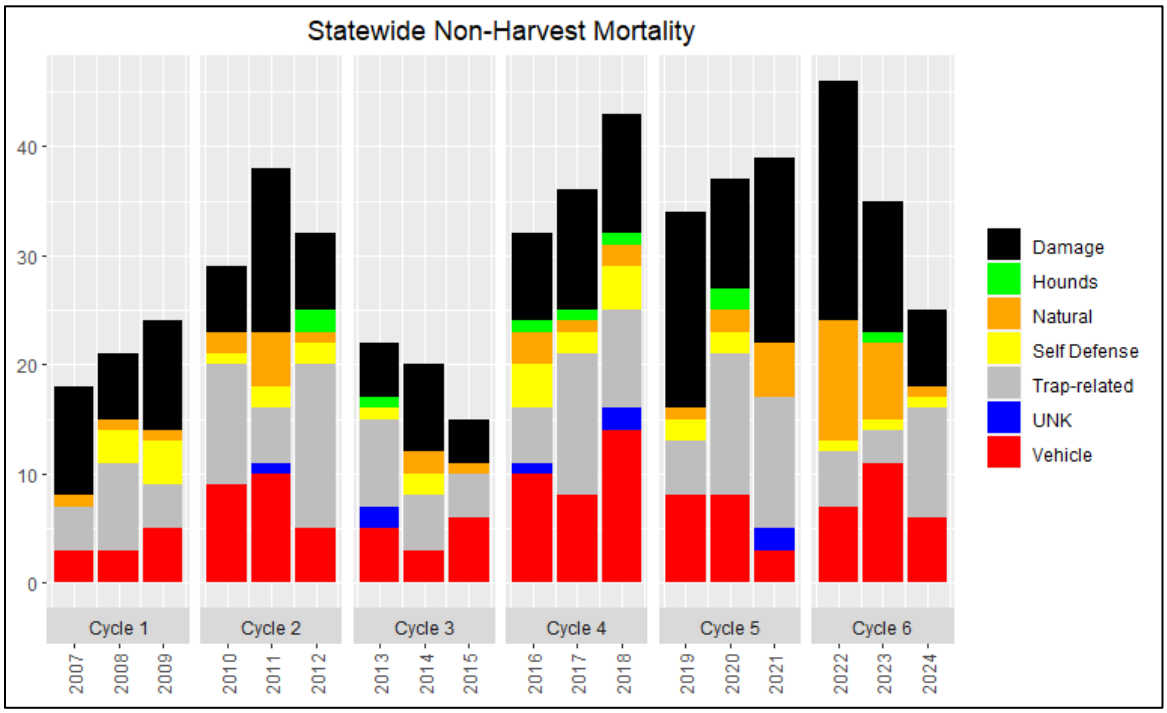

Figure 7. Statewide non-harvest mountain lion mortality in Wyoming, HYs 2007–2024.

Mountain lion conflicts reported via the statewide Department conflict database were categorized into four main categories including natural encounters/observations, mountain lions reported in proximity to homes or urban areas, depredation or property damage caused by mountain lions, and behavioral conflicts with mountain lions (Figure 8). Typically, natural encounters or observations are not considered conflicts, but are used to keep track of animal sightings if future conflicts occur in the area. Mountain lions reported in proximity to dwellings or other urban settings may or may not be considered a conflict, but as examples include reports of a mountain lion deer cache in a back yard, seen in a pasture, or treed by ranch dogs, but not causing immediate harm to people, livestock, or property. Depredation and property damage are conflicts where livestock or pets were injured or killed by mountain lions, or when property damage occurred. Finally, behavioral conflicts include instances where encounters occurred and the lion acted aggressively or was reluctant to leave. This included self-defense actions. Statewide conflicts have consistently decreased during for the management cycle, and it is important to recognize that years of high conflict are largely represented from a few specific hunt areas, with most areas incurring few mountain lion conflicts.

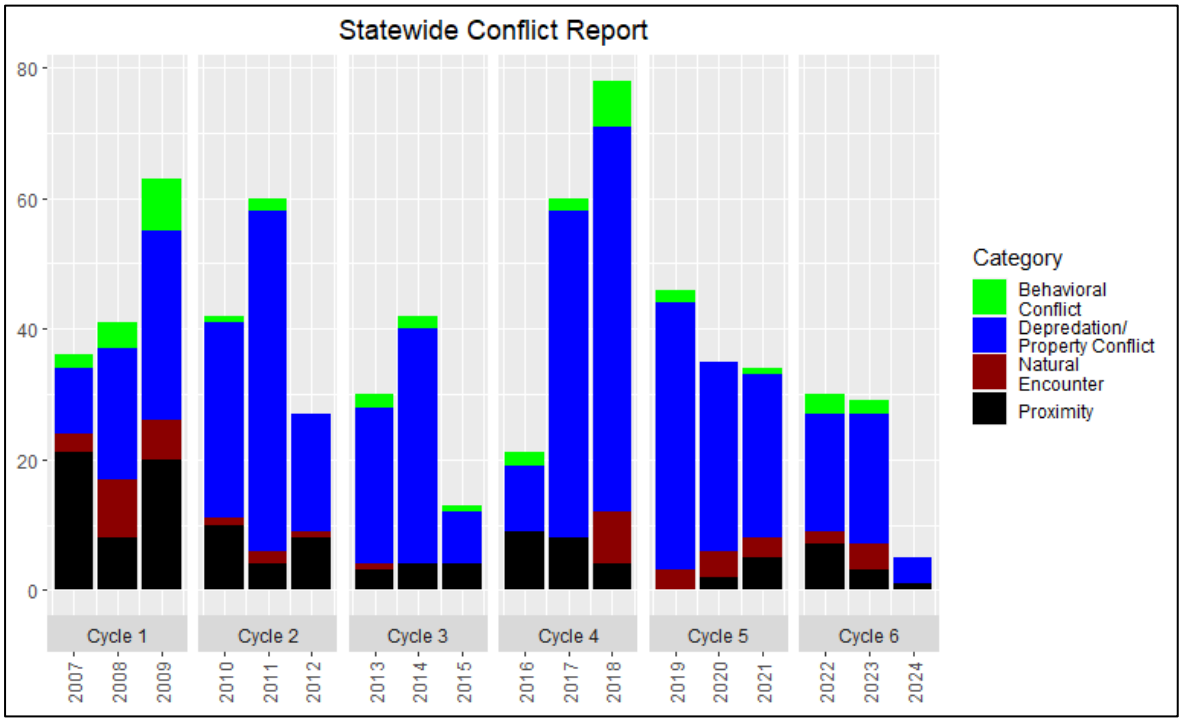

Figure 8. Statewide mountain lion conflicts reported in Wyoming, HYs 2007–2024.

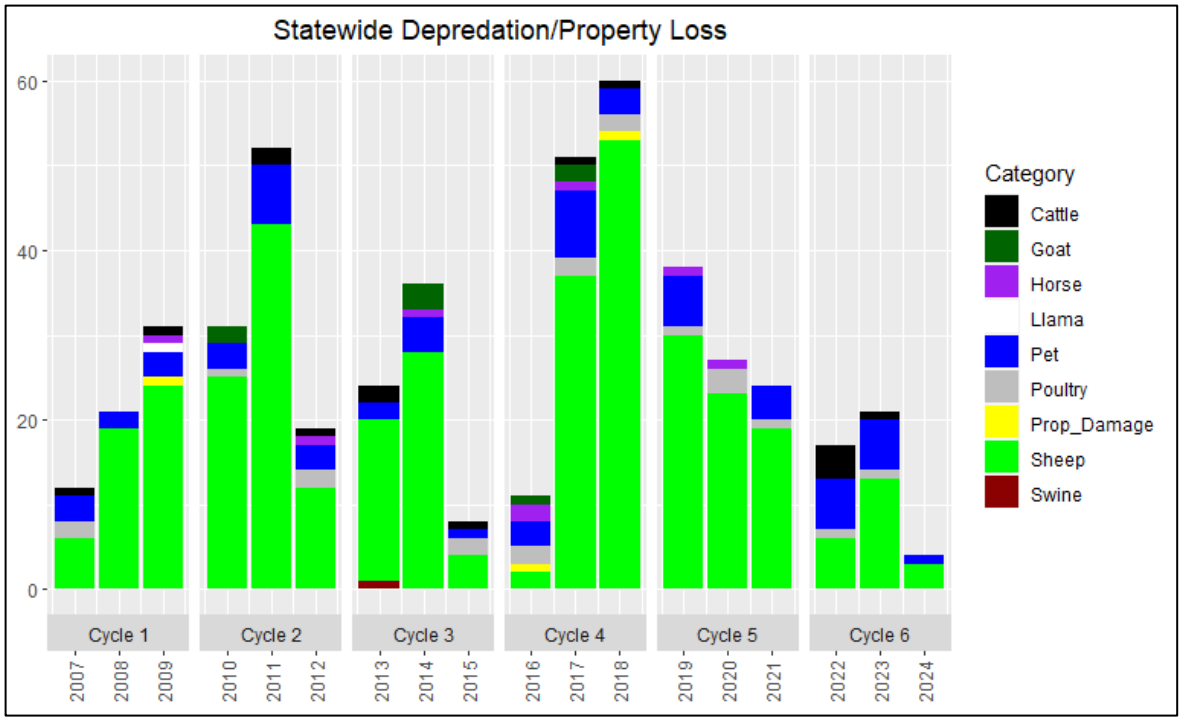

Figure 9. Statewide mountain lion depredation or property damage conflicts in Wyoming, HYs 2007–2024.

Similar to previous years, sheep damage consistently dominates depredation events statewide, but has seen reductions during the current cycle (Figure 9). The current management cycle totaled 64 statewide mountain lion conflicts, representing the lowest amount of conflict reported since the management plan was implemented in HY2007. The Department maintains the most effective way to mitigate for conflict damage for any large carnivore is the immediate targeted removal of the offending animal(s). If offending animals are not targeted, conflict usually continues and public tolerance wanes. While many times discussions related to conflict transcend into development and determination of harvest limits, it should be stressed that simple shifts in hunt area harvest limits do little to nothing for individualized circumstances of mountain lion conflicts with humans.

Mountain lion genetic analysis

The state mountain lion management plan relies on the ecological principles of source/sink dynamics by way of dispersal and immigration/emigration of juvenile mountain lions to maintain equilibrium and sustainability of local mountain lion populations. Therefore, the LCS is currently engaged in an assessment of how genetic exchange may appropriately validate and provide insight into how these processes play out across hunt areas and management units in Wyoming. Here we leveraged genetic tissue samples collected from mountain lion mortalities collected in earnest beginning in 2014, where these samples are archived within the LCS research and monitoring unit. We are currently in the process of collaborating with wildlife geneticists in an analysis to investigate the degree of genetic exchange of mountain lion populations across Wyoming. These types of analyses serve to validate and therefore provide support for current management strategies employed by the Game and Fish to continue to effectively manage large carnivores in Wyoming.

Mountain lion survival

The state mountain lion management plan outlines the inclusion of various hunt area objectives (i.e., a combination of source, stable, sink) to maintain overall population sustainability at the management unit level. The LCS is currently investigating methods to gain inference to overall survival of mountain lion populations across management units across the state. Previous analyses show how mortality data may be used for these assessments (e.g., Skelly et al. 2023), where the age of the animal at harvest might be leveraged to effectively estimate survival. Because WGFD labs provide age estimates for all mountain lion mortalities where adequate tooth samples were collected, long term mortality data may provide additional insight into survival estimates of mountain lions at the management unit level. Again, these analyses are intended to bolster and support current management practices for effective mountain lion management in the state.

LCS Mountain lion monitoring and research

LCS continues to actively monitor local mountain lion populations across the state. During the current management cycle the LCS concluded collecting data from HA 27 in central Wyoming where analyses are being conducted to investigate the role of predation of ungulates with chronic wasting disease (CWD). In addition, assessments continue on the impacts of human disturbance at mountain lion feeding sites as well as the role of scavenging communities in regard to CWD-infected carrion on the landscape. Finally, beginning in 2022 LCS corrobarated with University of Wyoming to capture and track mountain lions in western Wyoming focused on long-term population dynamcs of mule deer in the Wyoming Range.

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APPENDIX A

MOUNTAIN LION HUNT AREA ASSESSMENTS

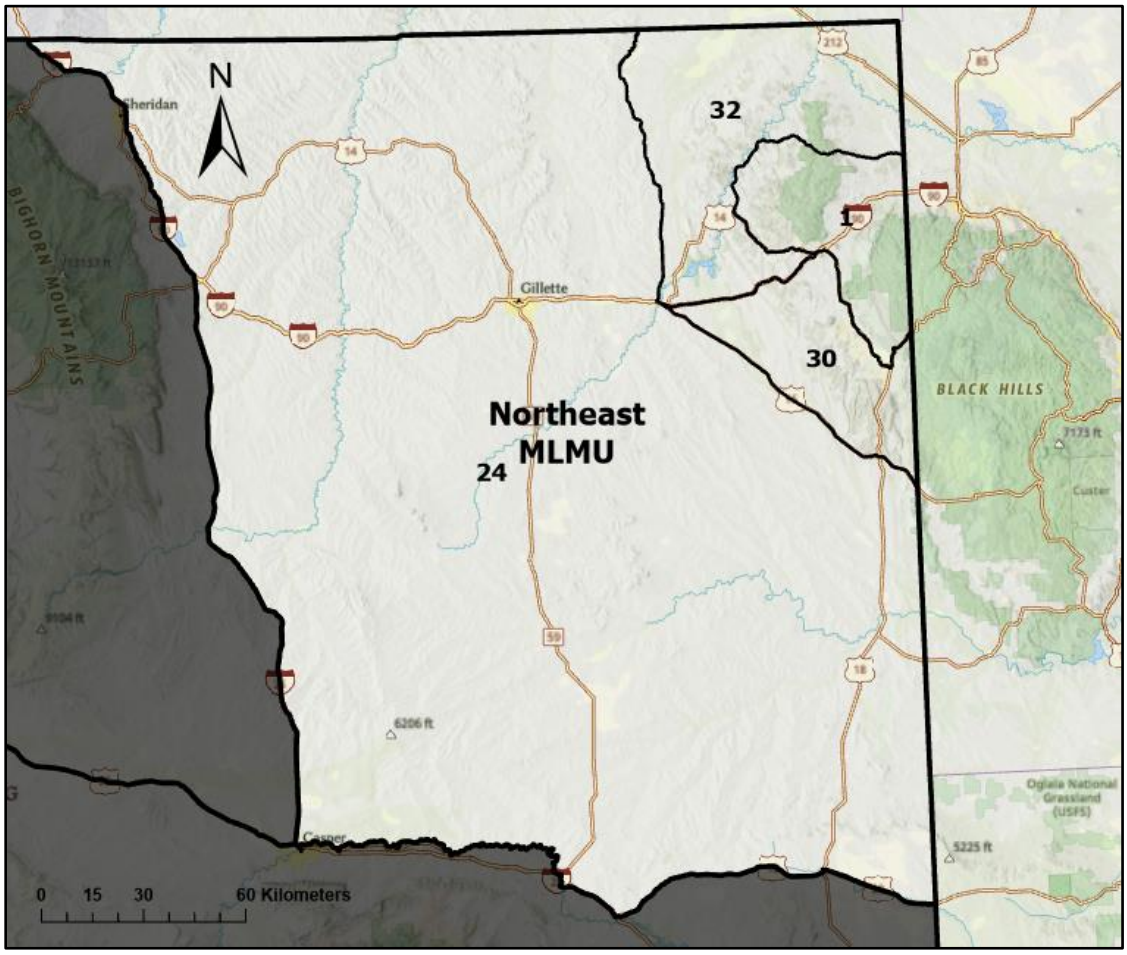
Detailed hunt area metrics and information are represented as standard panel figures by hunt area in Appendix A. These panels are intended to provide trend data by harvest year (HY), and include the primary mountain lion monitoring criterion #1- #3 described in the report introduction as well as other pertinent information that lends to determining hunt area status and function. Due to the large amount of information provided in this appendix, panel figures are not indexed within the Table of Contents.

Description of panel figures in Appendix A used to assess local hunt area trends. Monitoring criteria thresholds are shaded green = Source, blue = Stable, and red = Sink indicative of local population function. Red crosses throughout figures indicate the 3-yr cycle average.

Mountain lion mortality and harvest limits*	Mortality density – human-caused mortality/1000 km^2 habitat (Criterion #1)
% Adult females harvested (Criterion #2)	Average age of adult females harvested (Criterion #3)
Age/sex composition of harvest	Mean age of harvested animals
% Males in harvest (5+ years)	Resident/non-resident harvest

* Some areas allow unlimited harvest, and are therefore represented by the last applicable and numerical harvest limit

NORTHEAST MLMU



Overview

The Northeast MLMU continues to demonstrate local population pressure through hunting mortality, adhering to regional objectives to suppress mountain lion densities in northeast Wyoming. Field personnel report mountain lion densities began to show apparent declines at the end of the 3rd management cycle as early as HY2015. Social tolerance for mountain lions in northeast Wyoming is low in localized areas due to historical concerns regarding mountain lion conflicts. For example, during 2009-2011 this management unit incurred an average of over 17 conflicts annually, which prompted management actions in 2012 to partition areas surrounding HA 1 in to two separate hunt areas (HA 30 and HA 32; comprised primarily of private lands) and to increase allowable mortality targeted at those areas. These strategies were considered successful, focusing additional harvest into private land and adjacent areas, with immediate reductions in reported conflicts and an average of less than three conflicts reported annually in this management unit since 2019 (notably, targeted removal of offending individuals was also a primary factor in conflict reduction). Mortality limits have remained unchanged since 2012. HAs 30 and 32 have not reached mortality limits since 2014, with marked reductions in harvest during the current cycle. HA 1 now also has not reached mortality limits in three of the last six seasons. Coupled with a decrease in harvest is a high proportion of adult females harvested in HAs 30 and 32 during the current cycle, and spatial assessments indicate harvest continues to generally constrict toward the eastern portion of this management unit. These data indicate that regional objectives to reduce mountain lion densities have been successful, and HA 1, 30, and 32 are classified as Sink hunt areas. In general, immigration from a source population in South Dakota will likely continue to supply young animals via immigration into the hunt areas in Northeast Wyoming. Maintaining the regional objective for the northeast MLMU results in limited access to older age classes, but high accessibility to recreational harvest, particularly for resident hunters.

APPENDIX A: Northeast MLMU

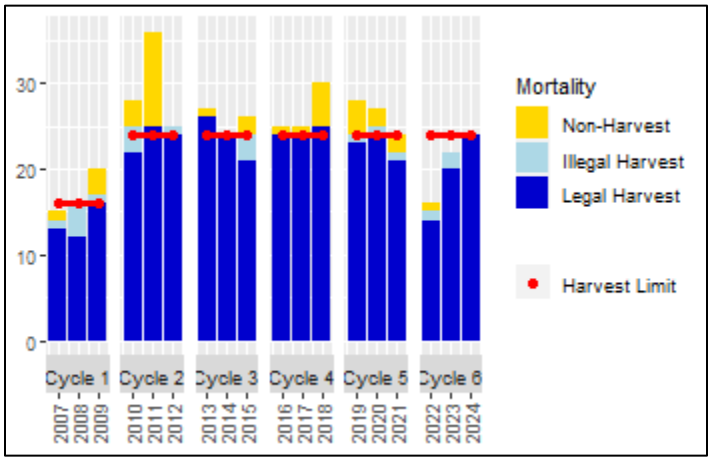
Hunt Area 1.

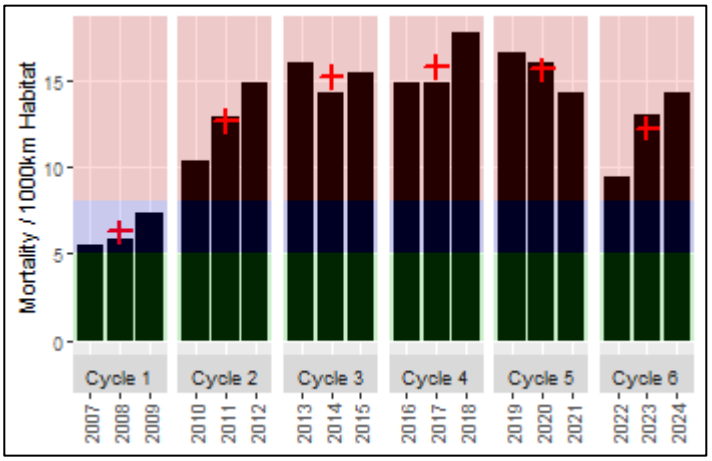
HY2022-HY2024 Regional Objective : Sink management

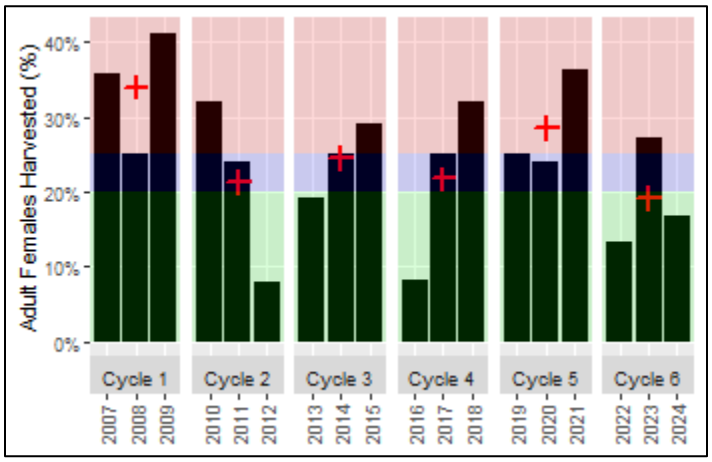
Assessment

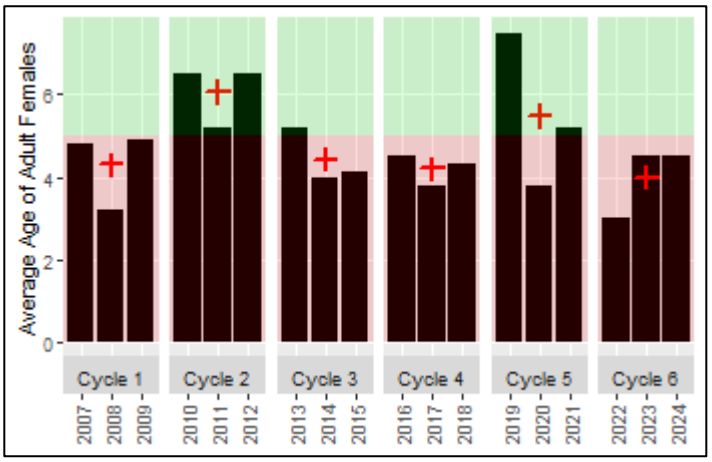
SINK: Mortality densities in HA 1 remain relatively high, but have subsided from previous years with lower hunter harvest during the cycle. HY2021 was the first time mortality limits were not reached before season closure in nearly 14 years, and two of three seasons in the current cycle also did not reach allowable mortality limits. Trend data indicate HA 1 may be stabilizing an age structure still skewed toward sub-adult population segments. Non-resident hunting is restricted to four of the 24 allowable harvests within the area, reducing competition and hunter crowding that increases opportunity for resident hunters. Less adult females were taken during the current cycle than the previous years, with nearly half of hunters reporting being selective for older age classes and male mountain lions. Spatial data indicate harvest distribution is shifting easterly toward the Black Hills of South Dakota. Reported conflicts have been few since HY2012, with three conflicts reported in the last six years. The regional objective for sink management in this hunt area is being met. HA 1 will continue to serve to maximize hunter opportunity via immigration of young mountain lions from the Black Hills in South Dakota.

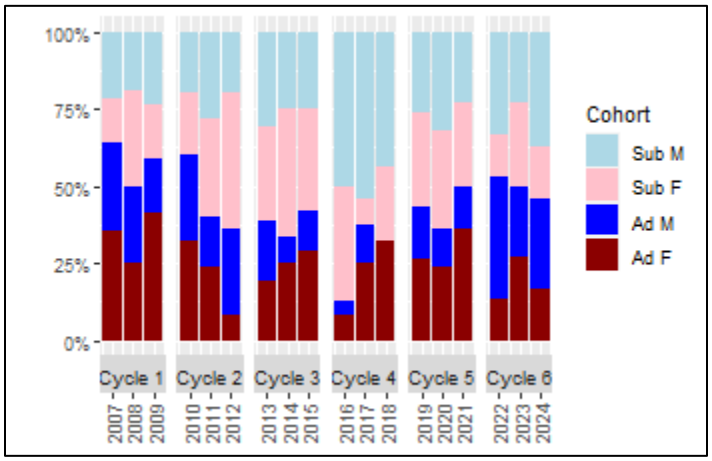
Hunt Area 1.

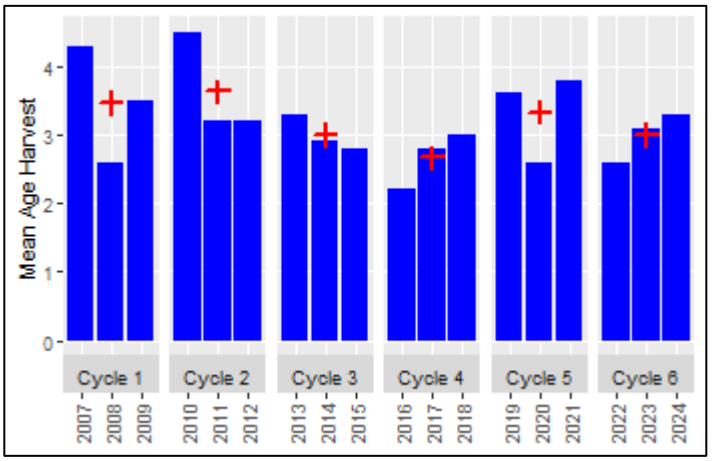

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

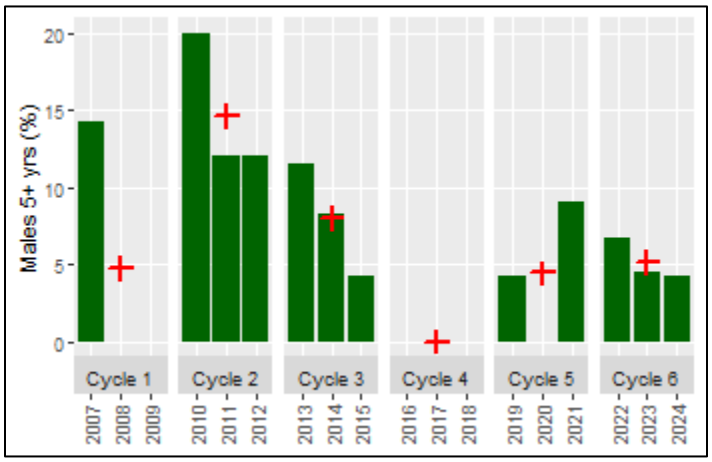

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

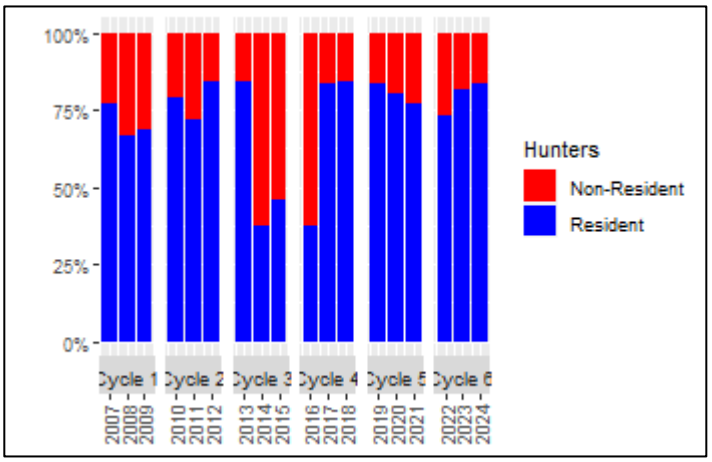

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Northeast MLMU

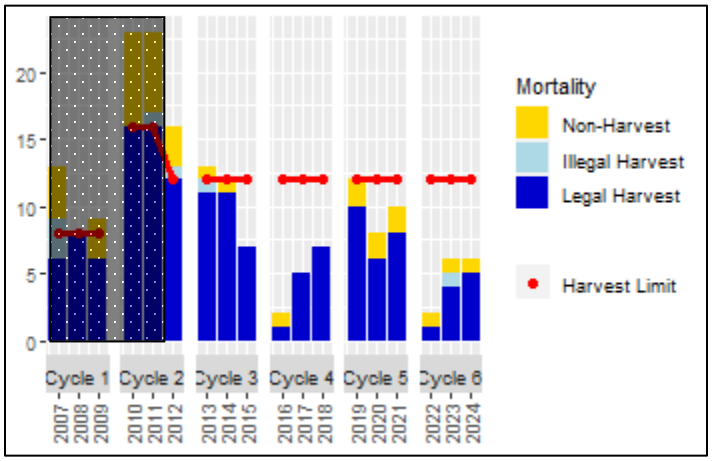
Hunt Area 30.

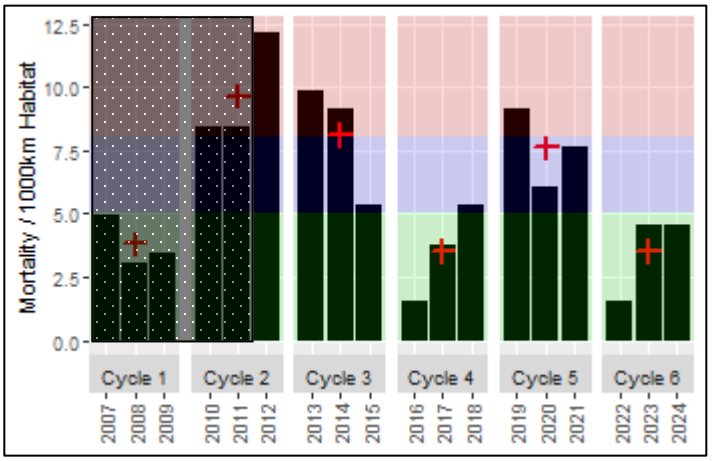
HY2022-HY2024 Regional Objective : Sink management

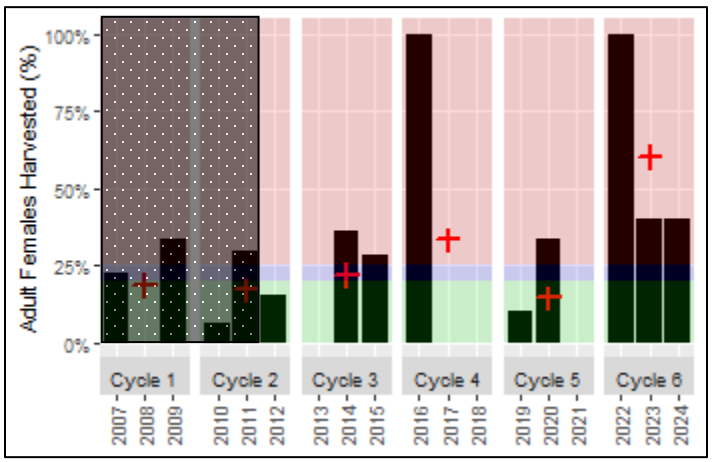
Assessment

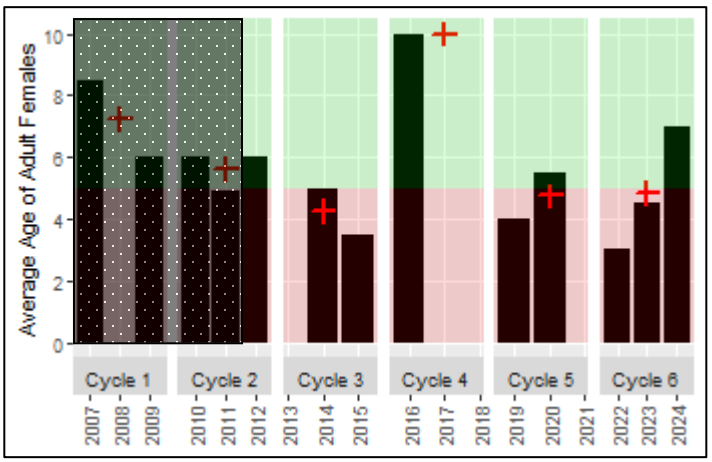
SINK: This management cycle reported the lowest harvest of mountain lions in HA 30 than any previous cycle and has not reached allowable mortality since 2013. As in previous cycles, most of the harvest in HA 30 is distributed along the border with South Dakota northeast of Newcastle, WY. Similar to HA 1, mountain lion densities in this area are likely driven primarily by dispersal, but maintaining hunting pressure will likely continue to suppress densities in the area and achieve management objectives for fewer mountain lions. Although harvest decreased in the current cycle, nearly half of all harvest consisted of adult females, likely representing the dominant cohort available in HA 30. As with HA 1, reported conflicts are low with two conflicts reported in the last decade.

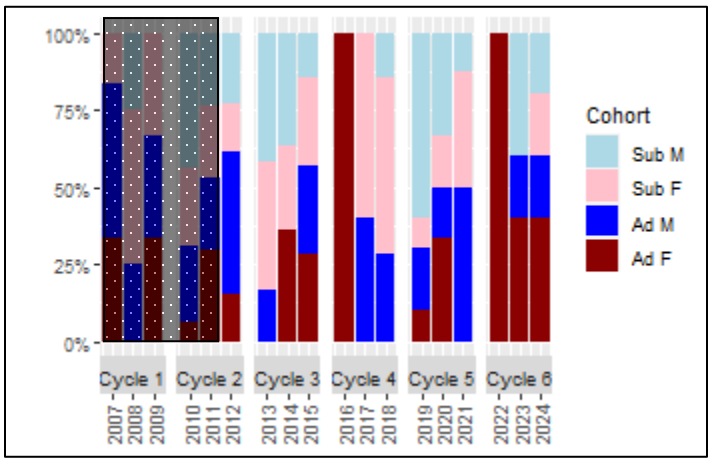
Hunt Area 30.

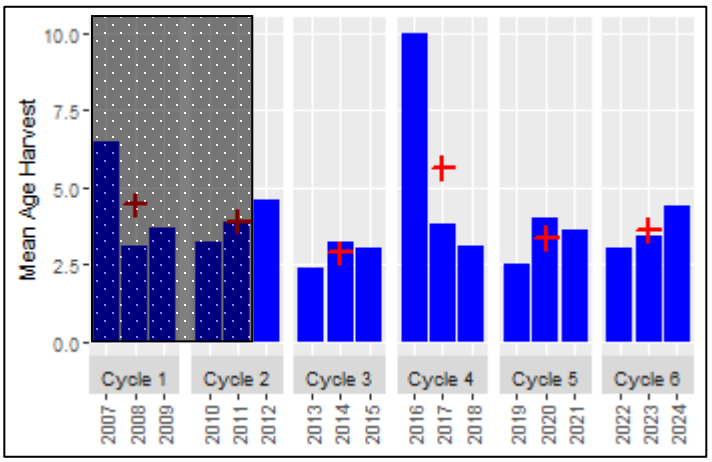

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

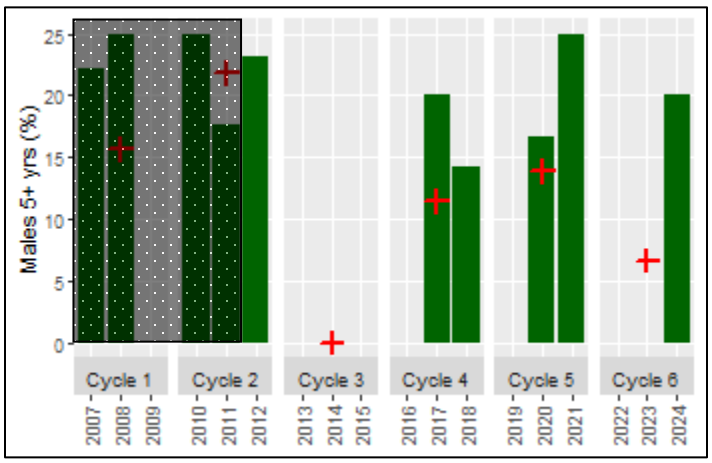

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

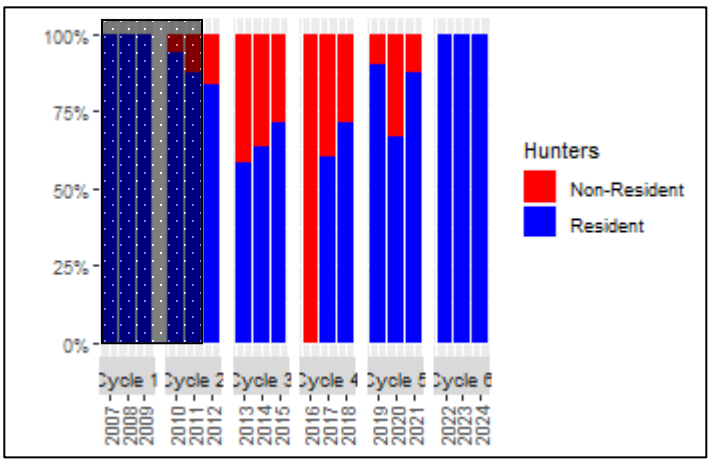

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Northeast MLMU

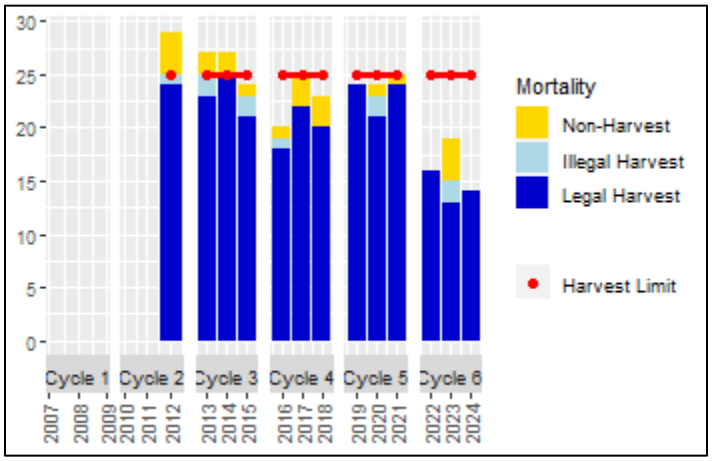
Hunt Area 32.

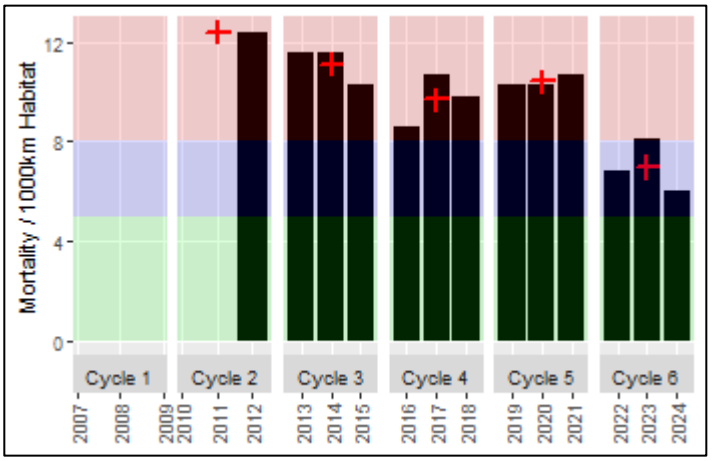
HY2022-HY2024 Regional Objective : Sink management

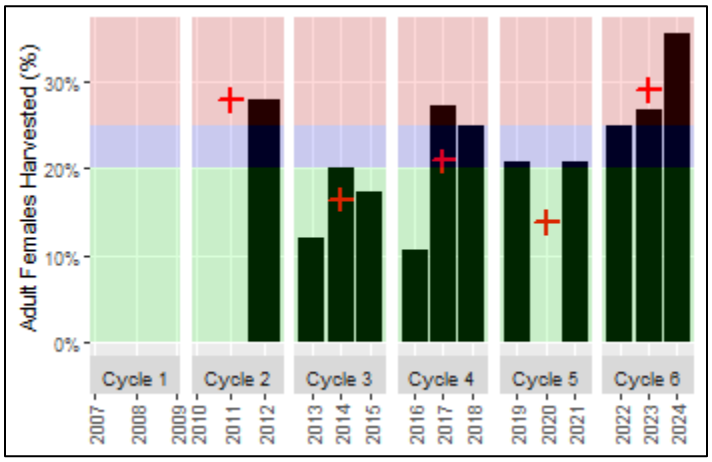
Assessment

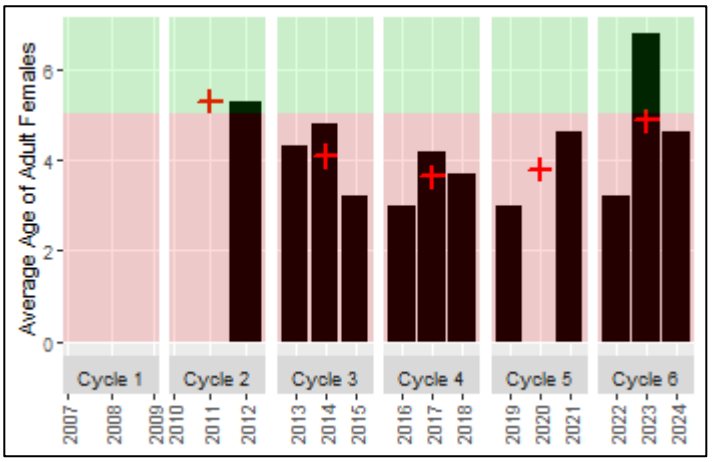
SINK: HA 32 was created from a partition of the northern portion of HA 30 beginning in HY2012, with a regional objective to reduce local mountain lion densities in an area with mostly private land status. HA 32 shows the youngest age structure within the NE MLMU, indicative of dispersing mountain lions on the periphery of the Black Hills. Adult harvest rebounded during the current cycle, but was dominated by adult females taken, with 25% or more adult females each year for HY2022 – HY2024 indicative of reproductive suppression. Non-resident hunting pressure remains moderate. Few conflicts were reported during the current cycle, with only two reports of domestic sheep losses. Data indicate the regional objective to direct harvest on to private lands and reduce mountain lion densities are being met.

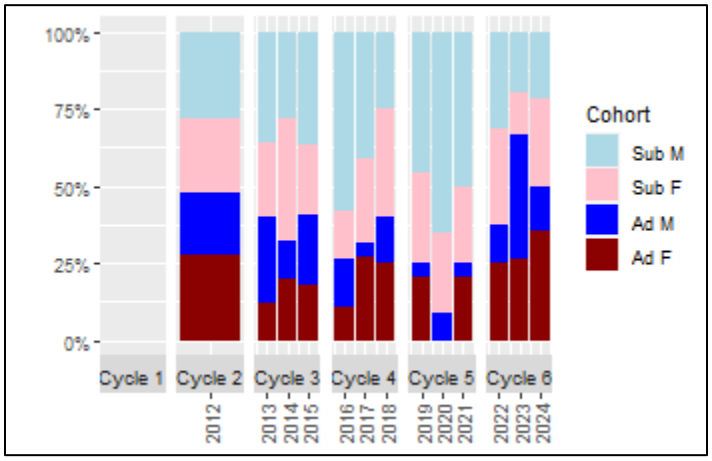
Hunt Area 32.

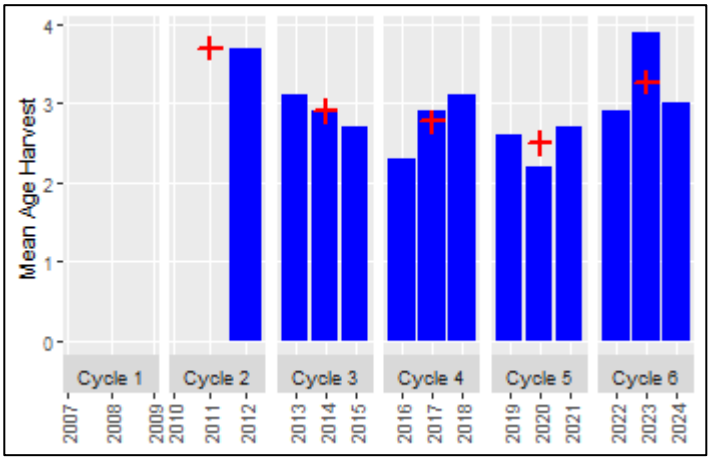

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

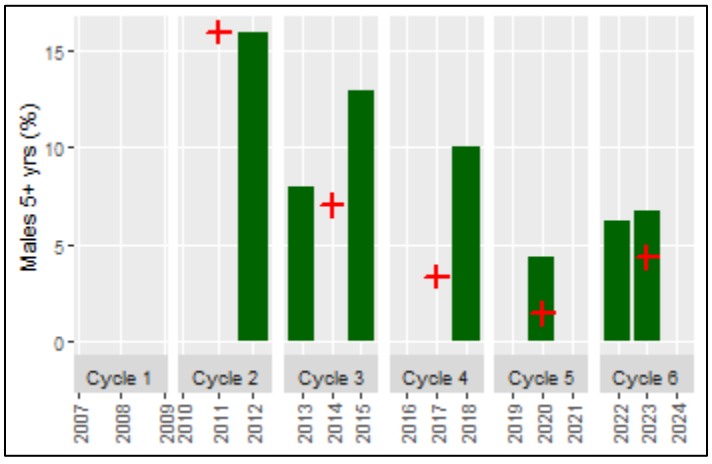

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

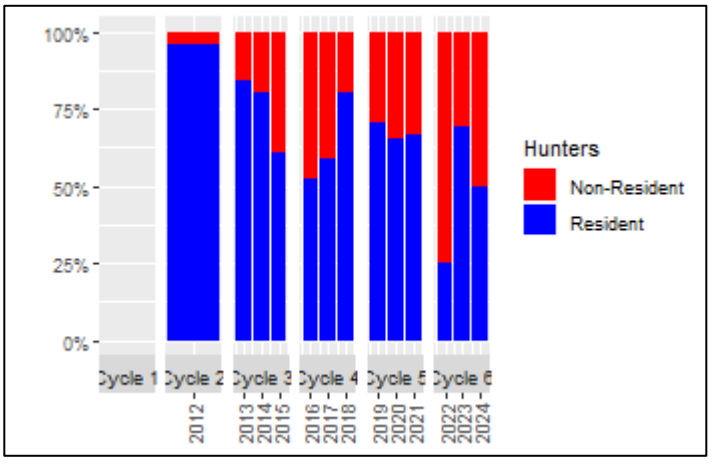

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Northeast MLMU

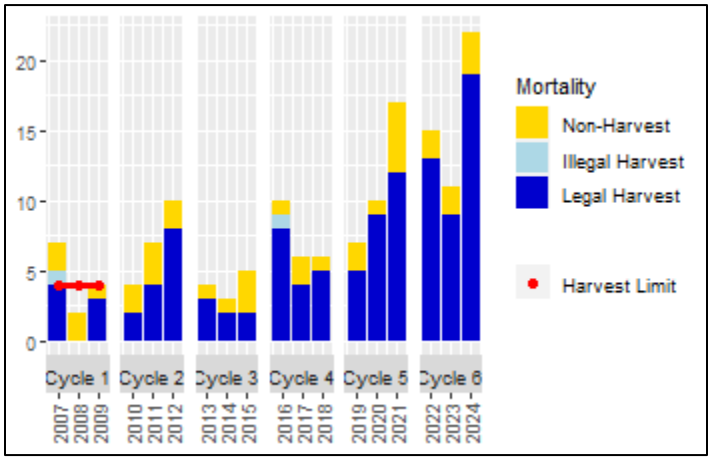
Hunt Area 24.

HY2022-HY2024 Regional Objective : N/A

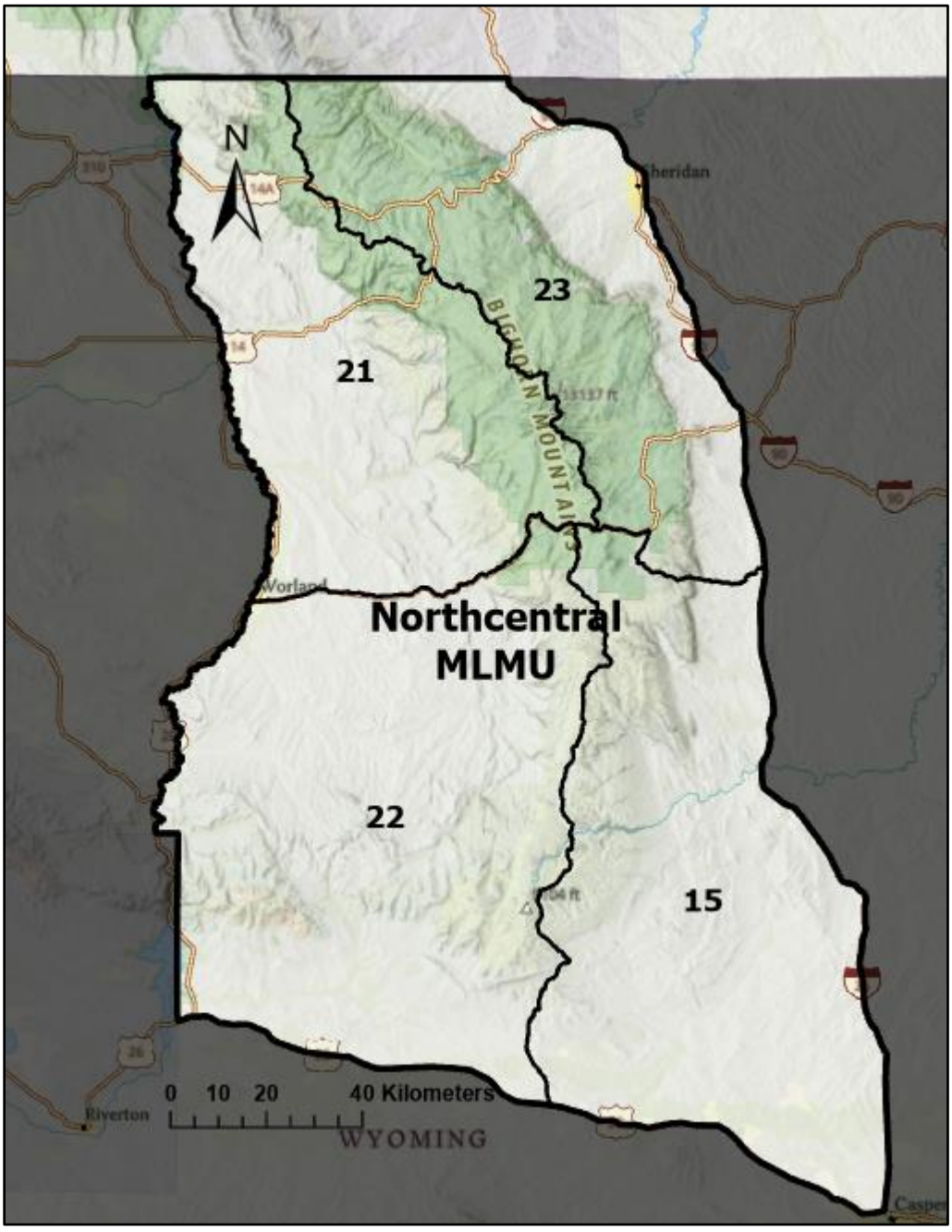
Assessment

N/A: HA 24 had increased mortality during the 6th cycle. HA 24 allows unlimited harvest, has low levels of dispersed habitat throughout the area, and is not currently managed for population viability. Two conflicts were reported in the last three-year cycle.

Hunt Area 24.



NORTHCENTRAL MLMU



Overview

The Northcentral MLMU has most suitable habitat in the southern portion of the unit (~70%), and therefore can sustain higher harvest rates in southern HAs 15 and 22. Following unprecedented harvest in HA 15 during the previous cycle, harvest dropped precipitously in this area. HAs 21 and 22 have generally maintained harvest levels at or near mortality limits slightly reducing age structures, while HA 23 maintains stability and higher quality harvest. Generally, this data indicates the Northcentral MLMU is under population suppression. Non-resident hunters and guided hunts now comprise the majority of harvests from the Northcentral MLMU.

APPENDIX A: Northcentral MLMU

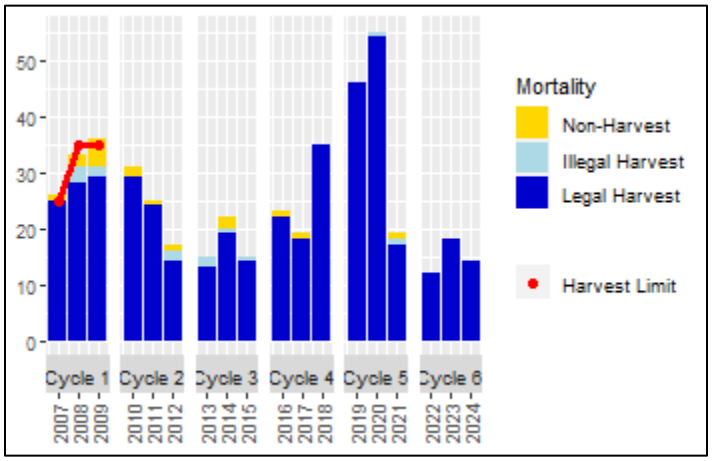
Hunt Area 15.

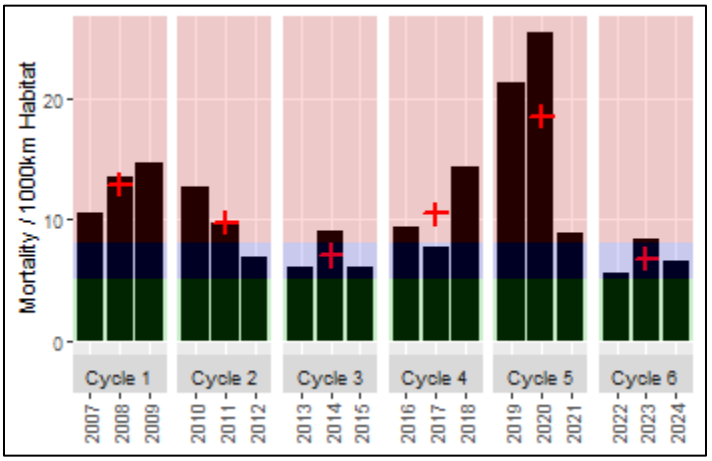
HY2022-HY2024 Regional Objective : Sink management

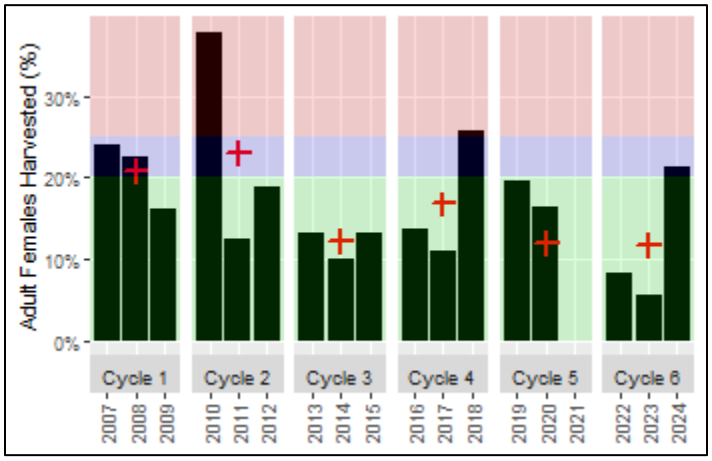
Assessment

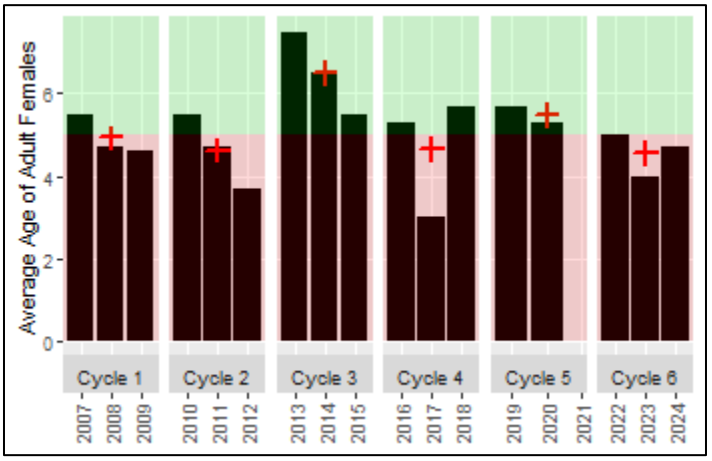
SINK: During the previous cycle, HA 15 incurred the highest mortality densities ever documented in the state. Intense harvest corresponded with a suppressed age structure dominated by sub-adults in the harvest. Subsequent to these high mortality densities, harvest dropped significantly since HY2021, with the current cycle reporting the lowest harvest since the implementation of the management plan in 2007. This trend data indicate suppressed densities in the hunt area, and hunters report a 50% reduction in observed tracks and an increase in the days of effort per harvest during this cycle. One conflict was reported during the HY2022 – HY2024 management cycle.

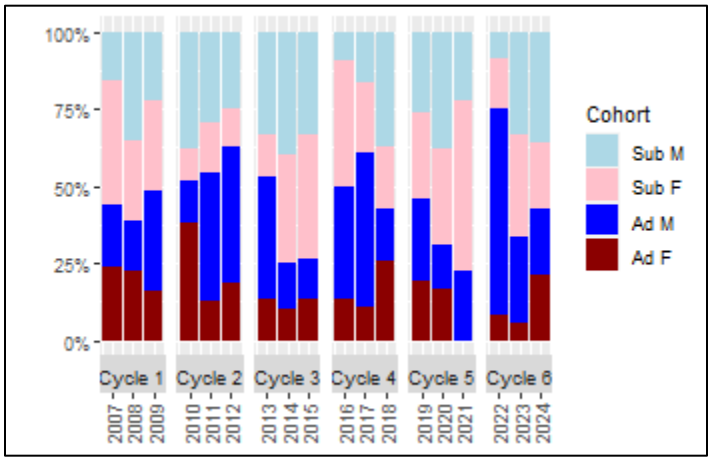
Hunt Area 15.

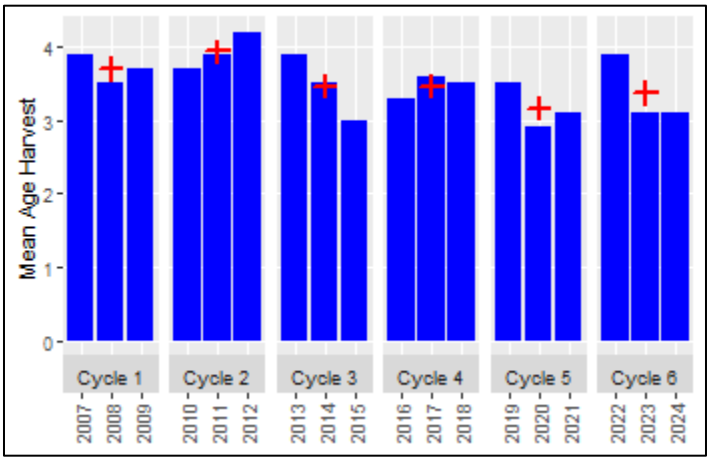

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

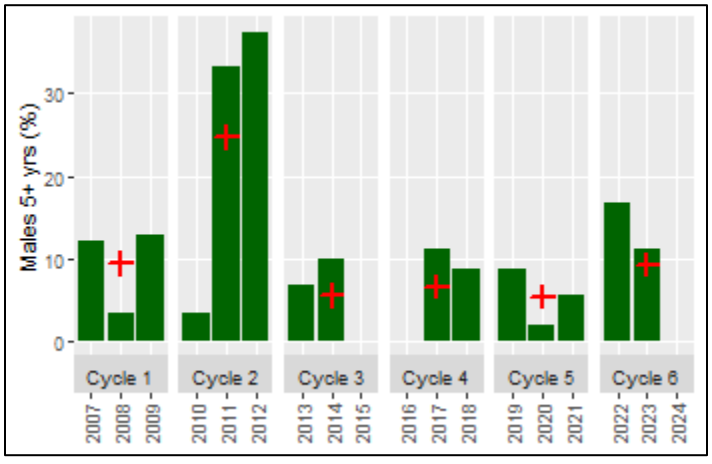

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

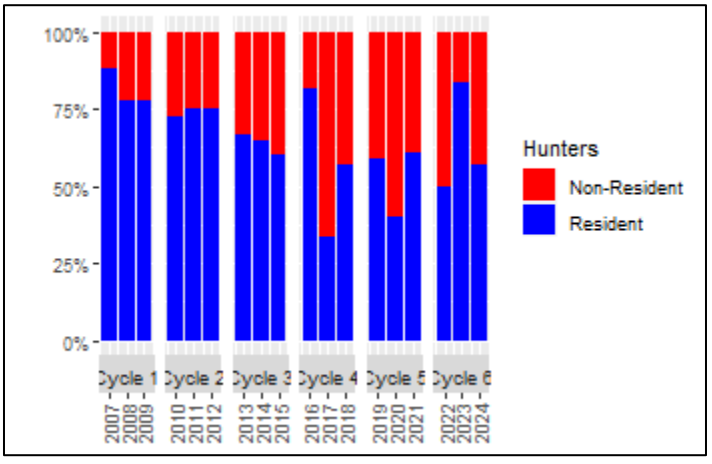

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Northcentral MLMU

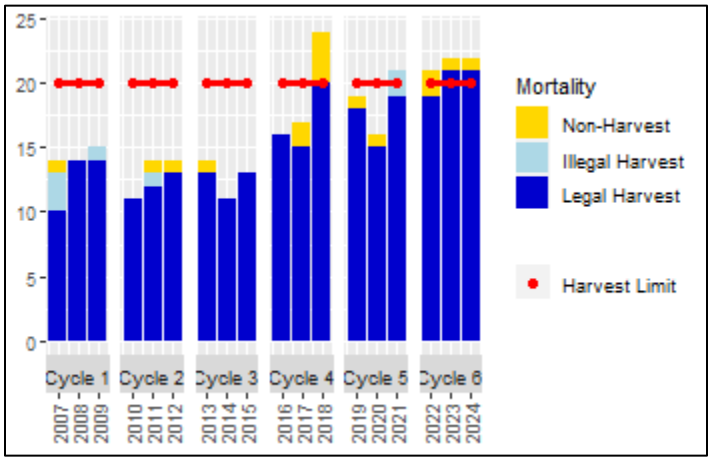
Hunt Area 21.

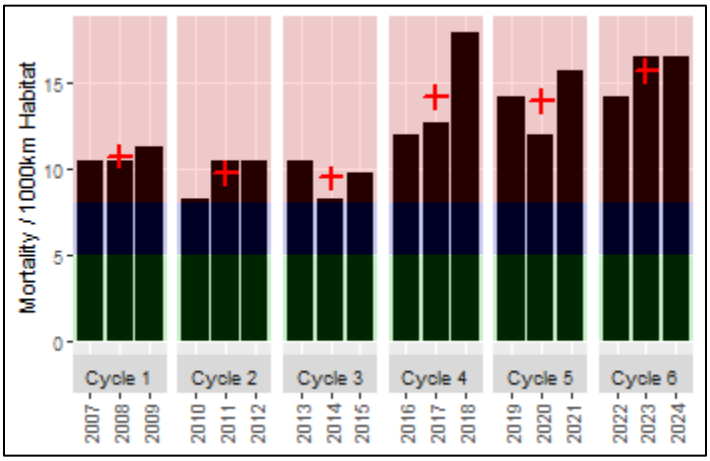
HY2022-HY2024 Regional Objective : Stable/Sink management

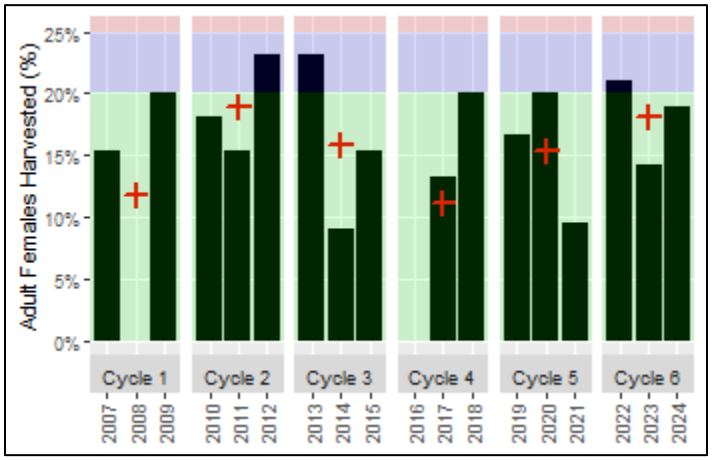
Assessment

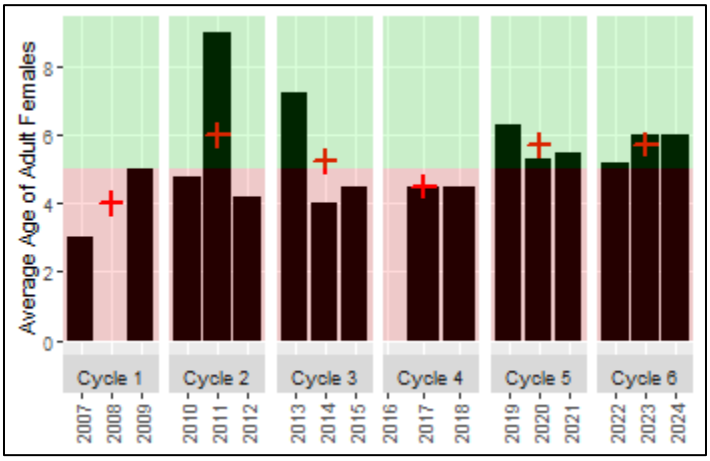
STABLE/SINK: HA 21 has shown steadily increased harvest over the past three management cycles, with two of the last three years exceeding allowable mortality. Where previously the proportion of adult females harvested remained low and older aged males were still represented, during the current cycle higher proportions of females were taken, and older aged males were less represented than in previous years. Selectivity by hunters has decreased while guided hunts have continued to increase since 2014, with nearly half of harvests resulting from guided hunting opportunities. Harvest is well distributed and aligns well with habitat estimates. No conflicts have been reported in this hunt area in the last five years.

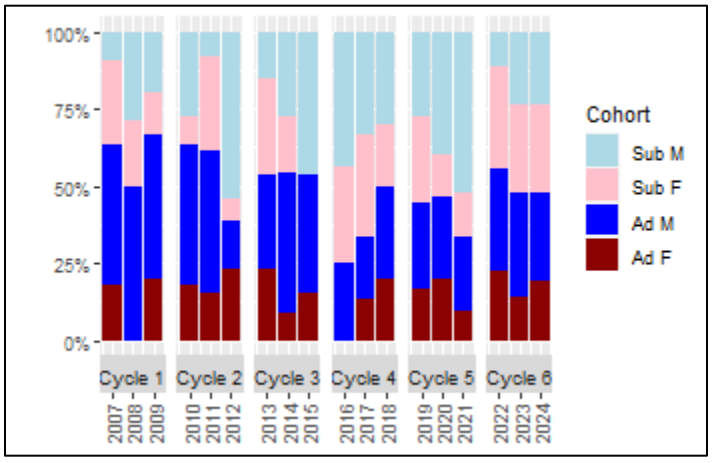
Hunt Area 21.

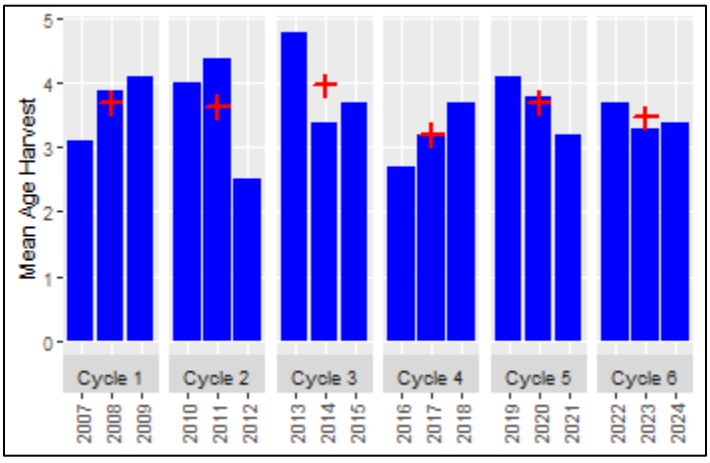

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

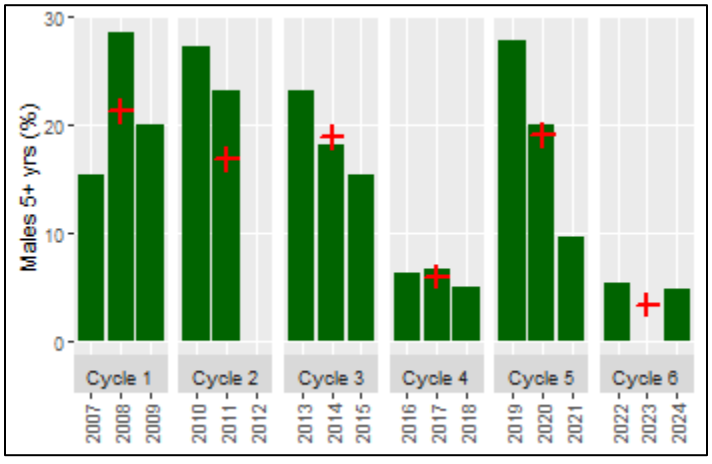

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

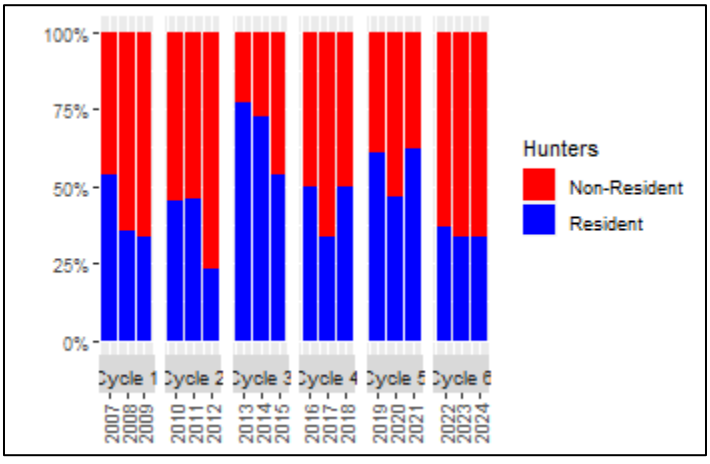

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Northcentral MLMU

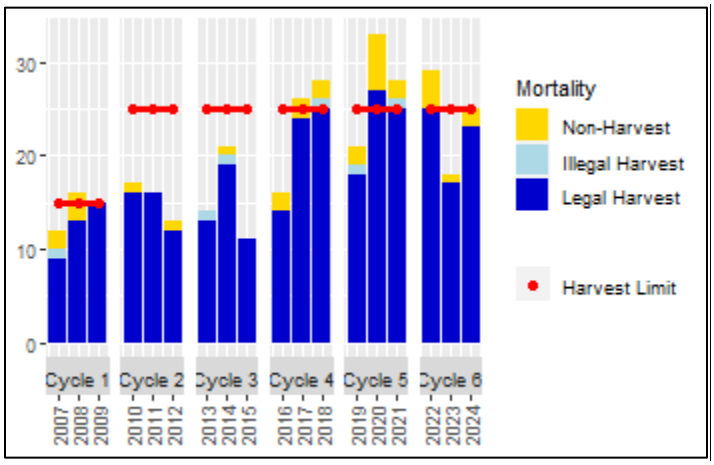
Hunt Area 22.

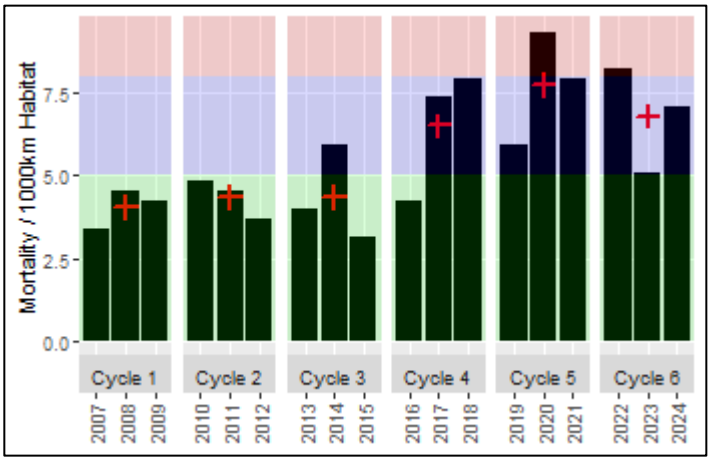
HY2022-HY2024 Regional Objective : Sink management

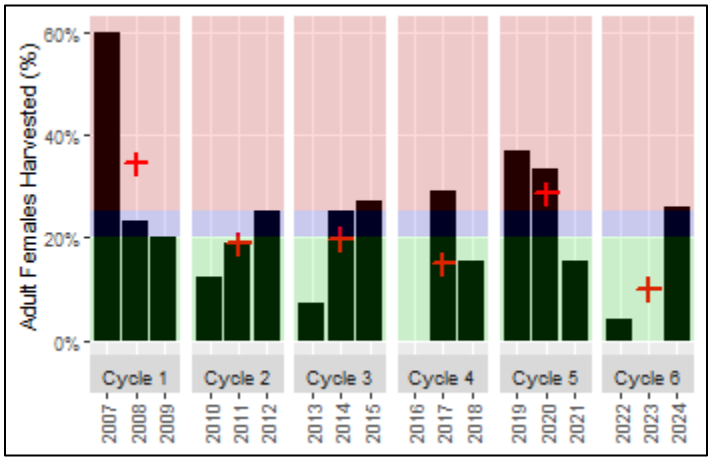
Assessment

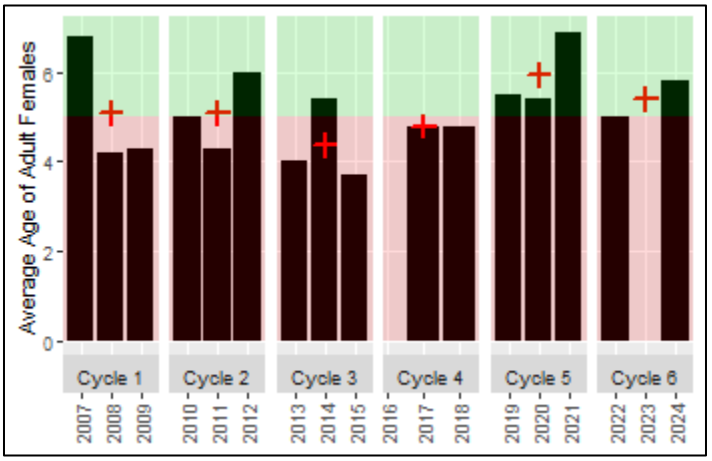
STABLE/SINK: HA 22 has recently shown elevated harvest levels, now regularly reaching mortality limits. Increased adult female mortality was documented in the previous management cycle, but dropped during the current cycle with only one year reaching 25%. Suitable habitat within HA 22 is probably overestimated, as age structure has decreased within stable mortality density estimates. Age structure continues to shift toward sub-adult animals and less older-aged males compared to previous cycles. Non-resident hunters and guided hunts continue to increase in the area, both comprising over 60% of harvests during the cycle. Hunter selectivity has remained near 40%, but the number of tracks reported by hunters was reduced by over 50% indicating harvest pressure in the area. Harvest has also shifted to the easterly portion of the area.

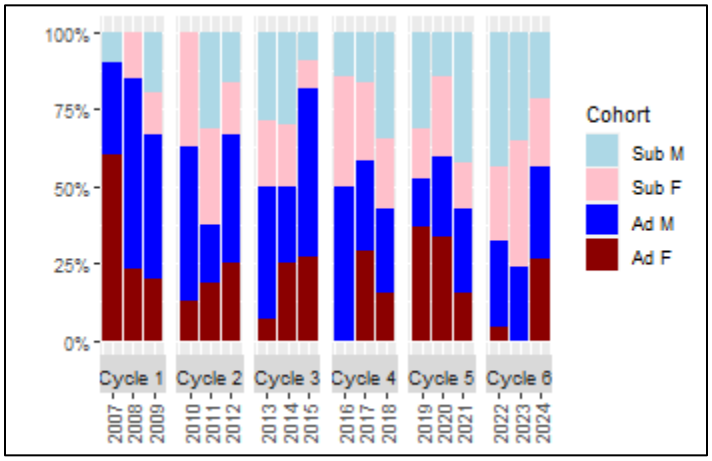
Hunt Area 22.

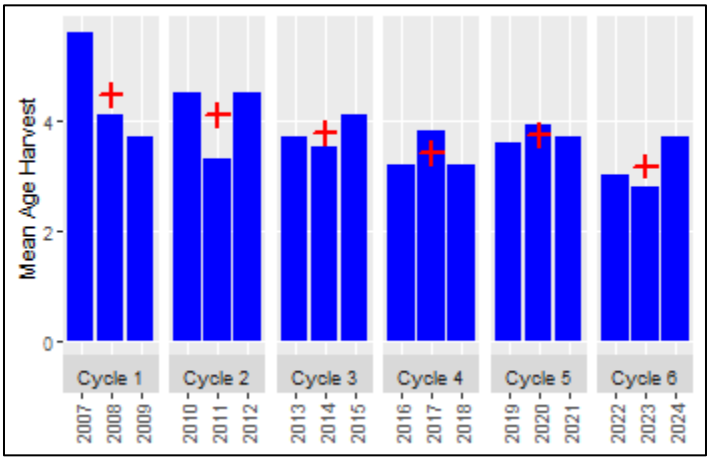

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

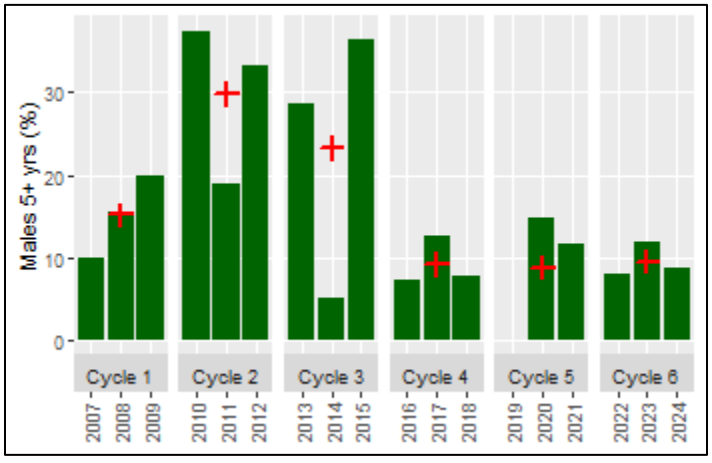

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

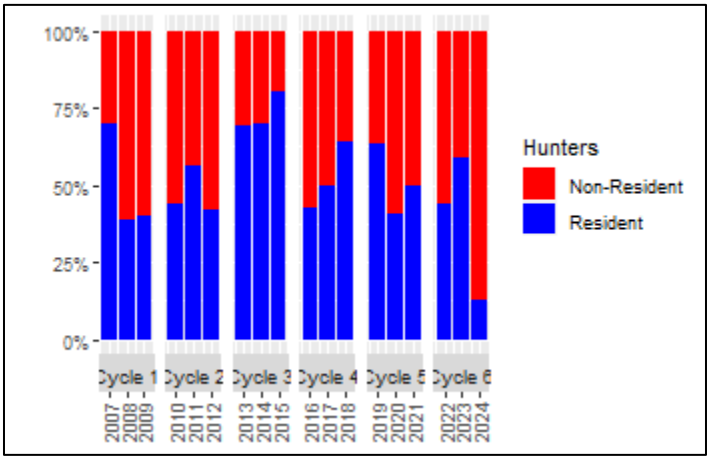

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Northcentral MLMU

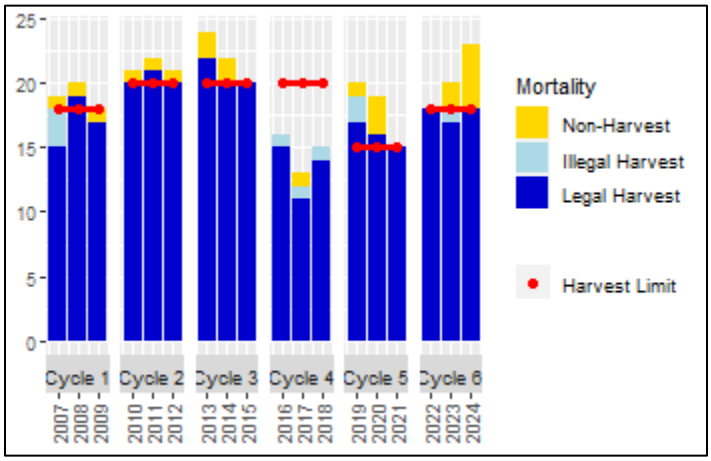
Hunt Area 23.

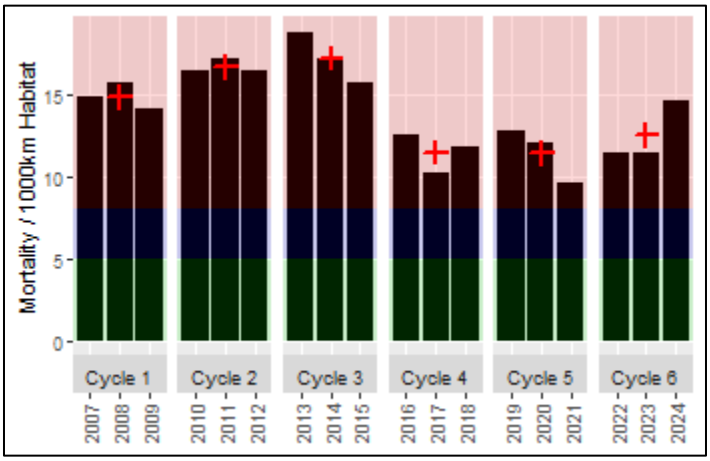
HY2022-HY2024 Regional Objective : Stable management

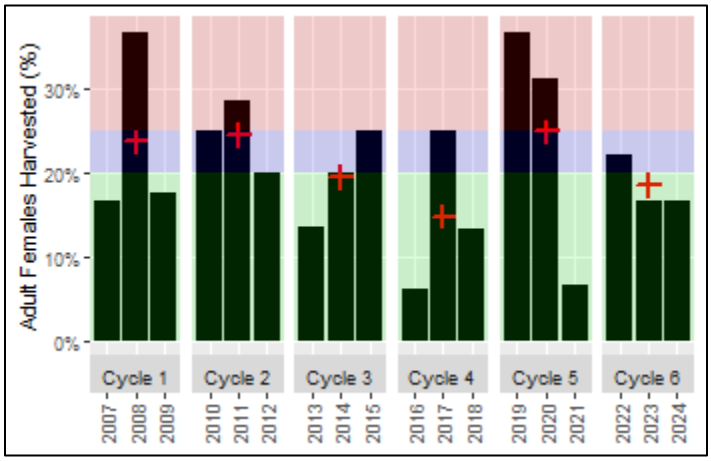
Assessment

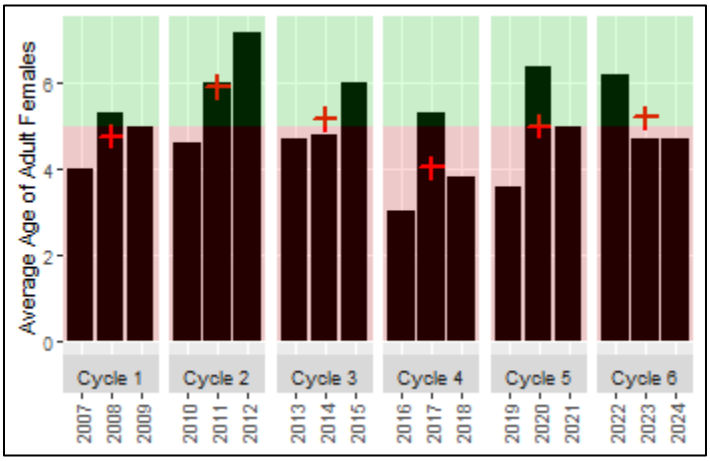
STABLE: Mortality limits in HA 23 have varied from 15 to 20 allowable harvests in an attempt to maintain stability within the hunt area, and mortality densities have maintained just above stable range. Similar to HA 21, harvest coincides well with habitat estimates and was well distributed across the area. Adult male mountain lions continue to be well represented during this cycle, although adult female harvest exceeded 30% for two years in the previous cycle. About half of harvested animals are taken by non-resident hunters with approximately 40% utilizing guiding services. Four depredation conflicts were reported during this cycle.

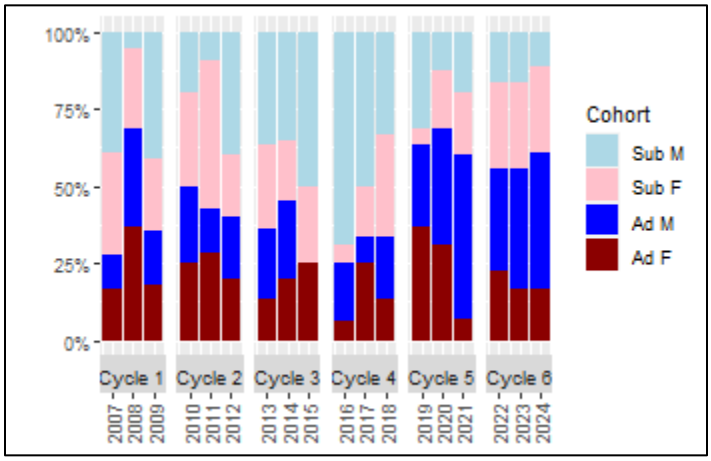
Hunt Area 23.

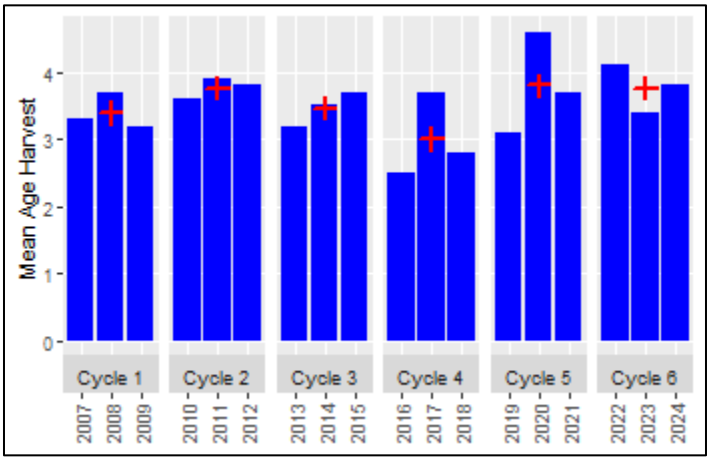

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

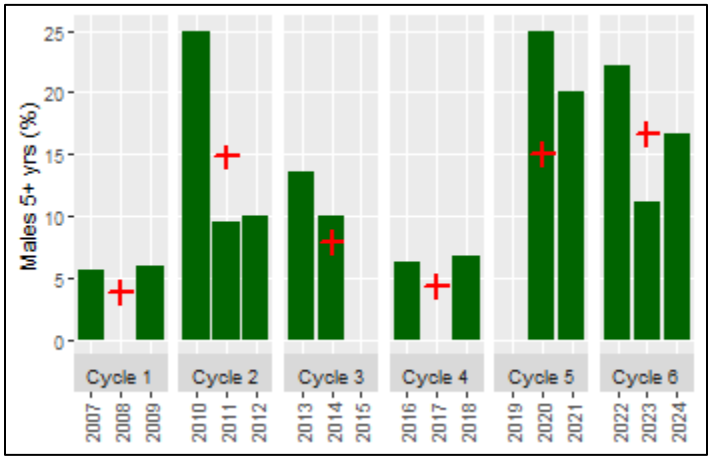

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

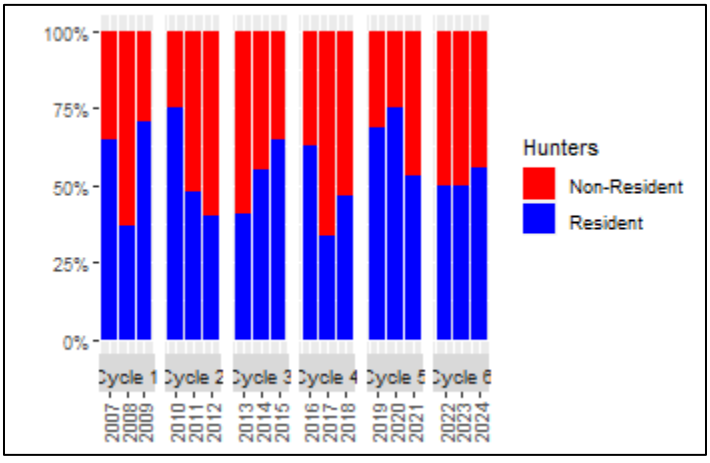

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

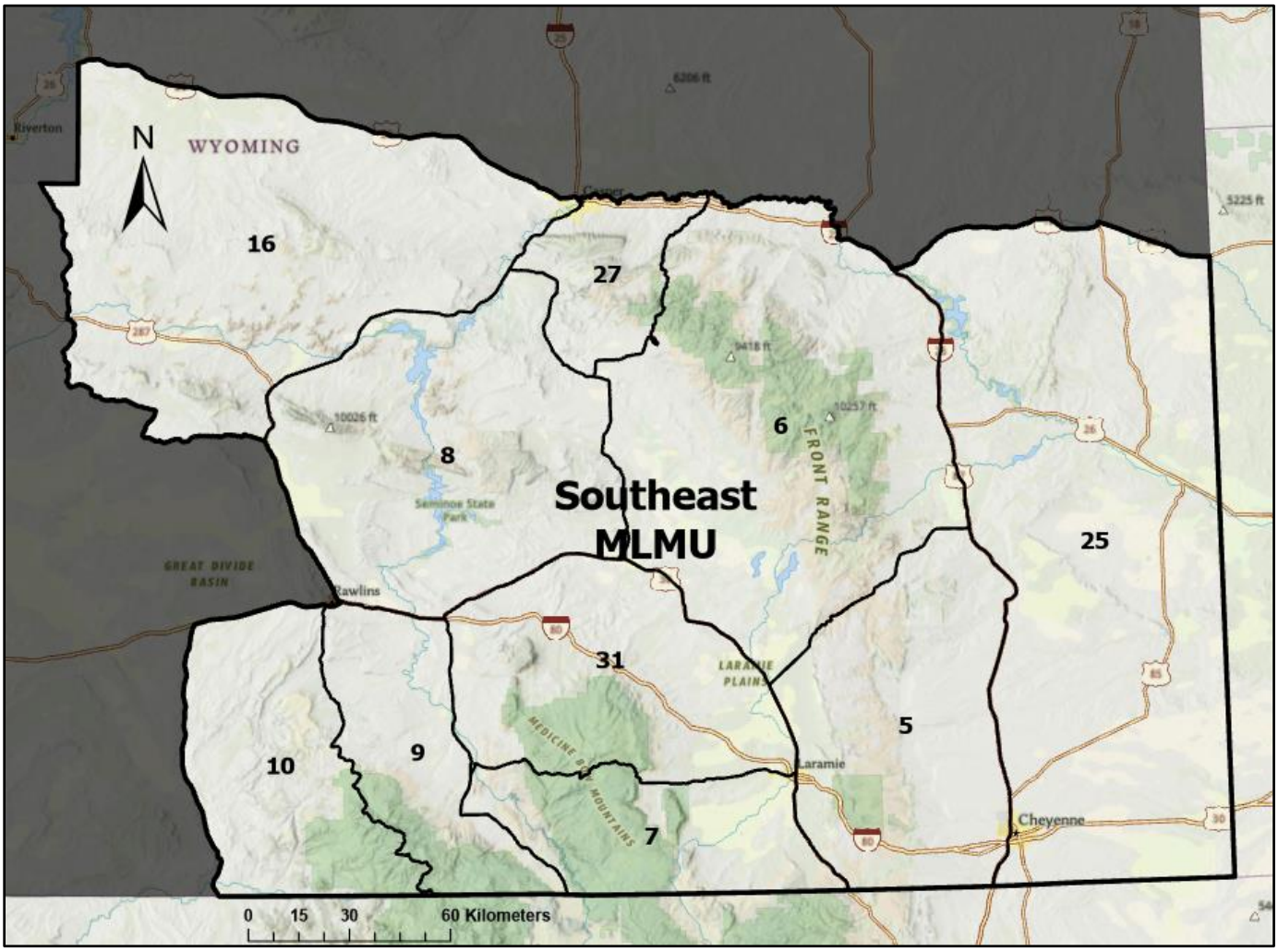

Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

SOUTHEAST MLMU



Overview

The Southeast MLMU includes 10 total hunt areas. However, HA 6 and HA 27 in the Laramie Range, as well as HAs 7, 9, and 31 likely support higher mountain lion densities within the management unit. Harvest during this management cycle was similar to the previous cycle, and age structure has stabilized with slightly higher sub-adult proportions than in earlier management cycles. Areas within the Sierra Madre and Snowy Ranges indicate stable/sink status, with more stable function throughout the Laramie Range. Hunt areas along the Wyoming/Colorado state line receive immigration from the south.

APPENDIX A: Southeast MLMU

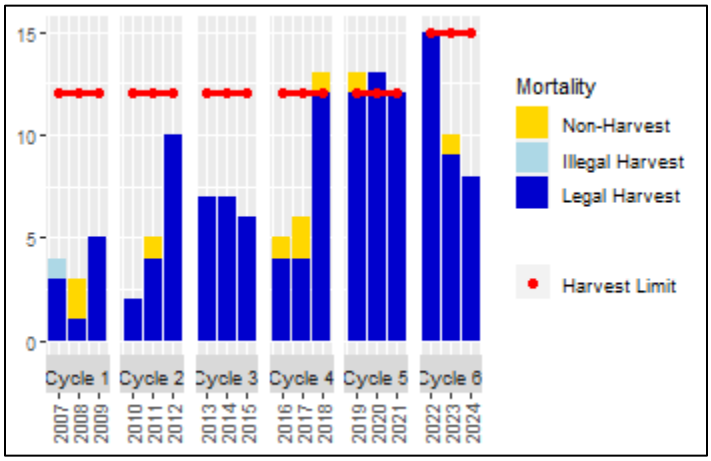
Hunt Area 5.

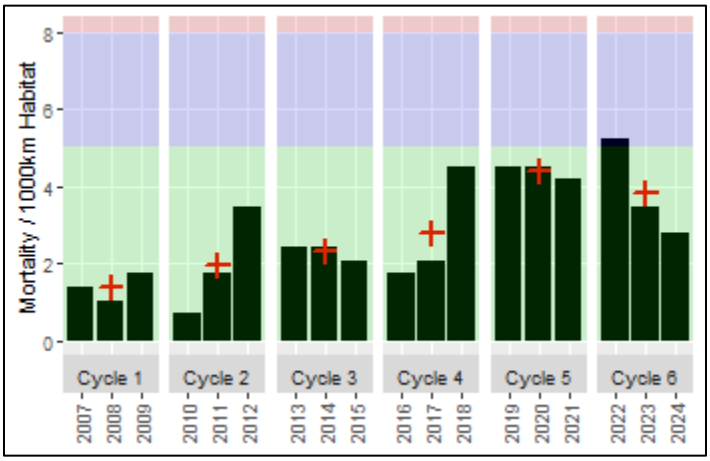
HY2022-HY2024 Regional Objective : Stable/Source management

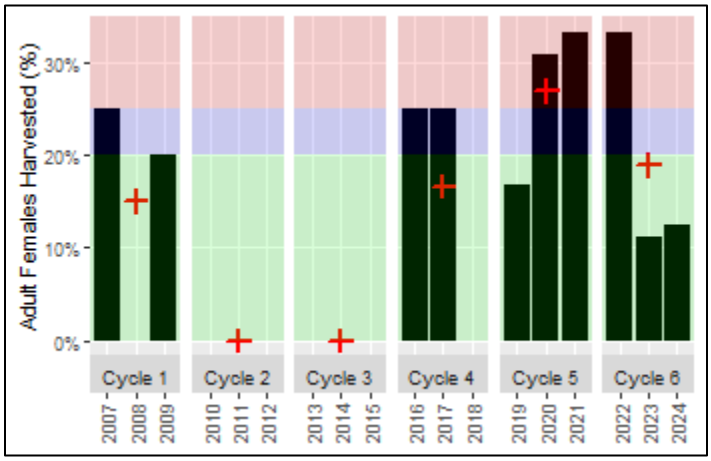
Assessment

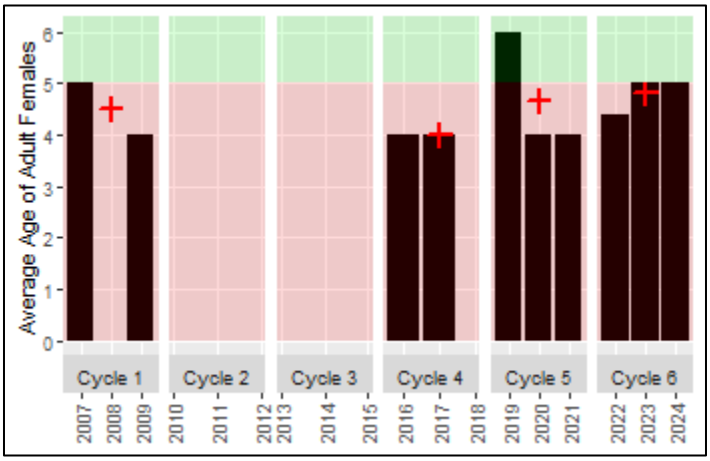
STABLE: HA 5 had a lower average harvest compared to the previous cycle despite increased allowable mortality. Mortality densities generally remain in source range, but across management cycles the proportion of adult females in the harvest exceeded 30% for three consecutive seasons likely impacting recruitment. Suitable habitat may be slightly overestimated in this area, but private lands and environmental conditions favor harvests occurring on the eastern portion of winter habitat, and therefore seasons extend through April off national forest lands. Overall average age of harvest was unchanged just below four years, and the age structure has been relatively stable. Non-resident hunters have recently represented about 25% of the harvest, with the proportion of guided hunts increasing to around 40%. Hunter days per harvest has maintained stable but the number of observed tracks reduced by 50% from the previous cycle. No conflicts were reported during the cycle.

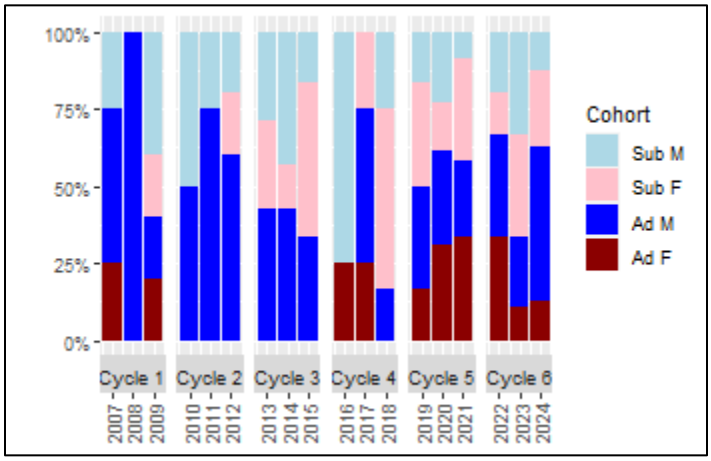
Hunt Area 5.

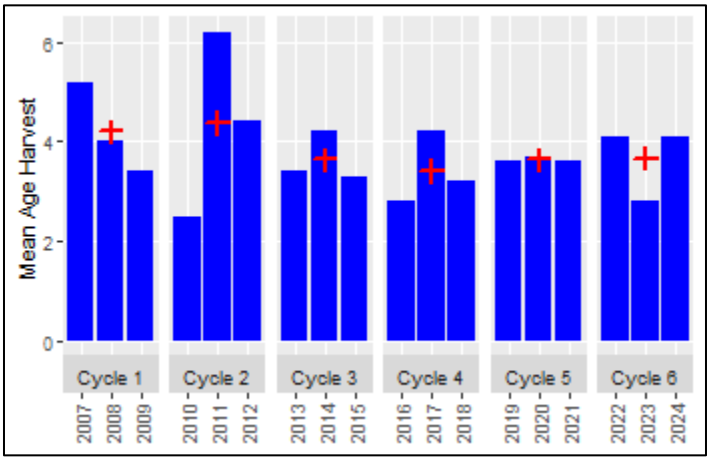

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

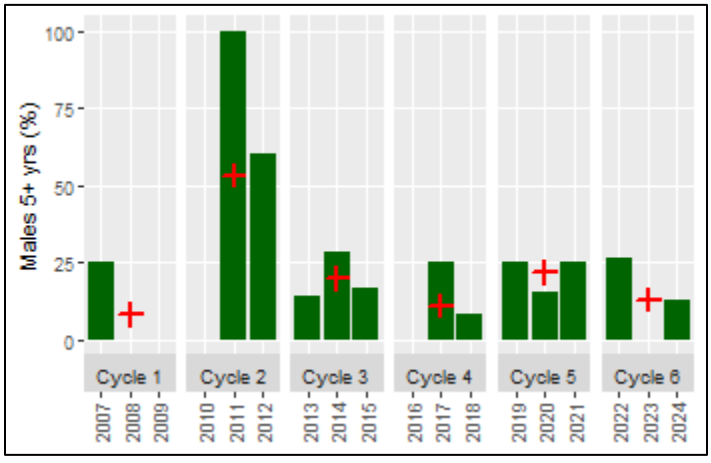

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

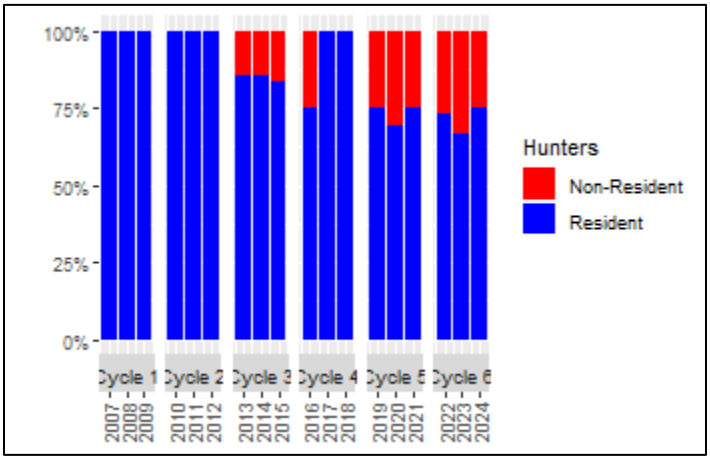

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southeast MLMU

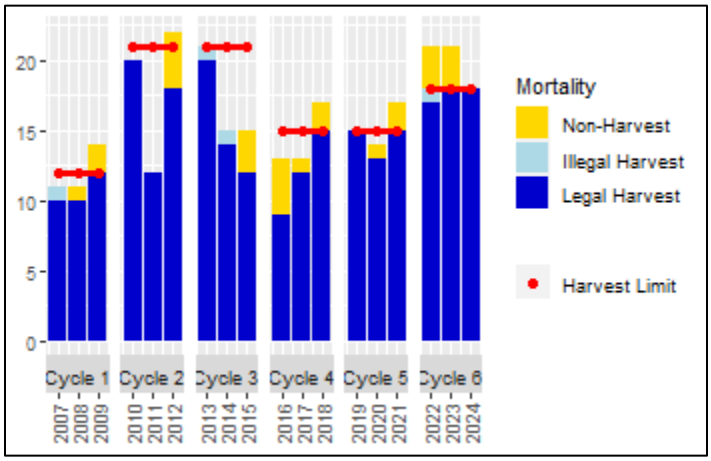
Hunt Area 6.

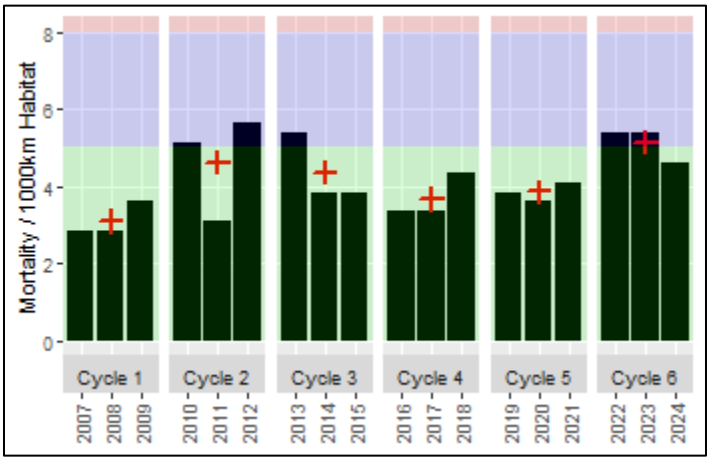
HY2022-HY2024 Regional Objective : Stable/Source management

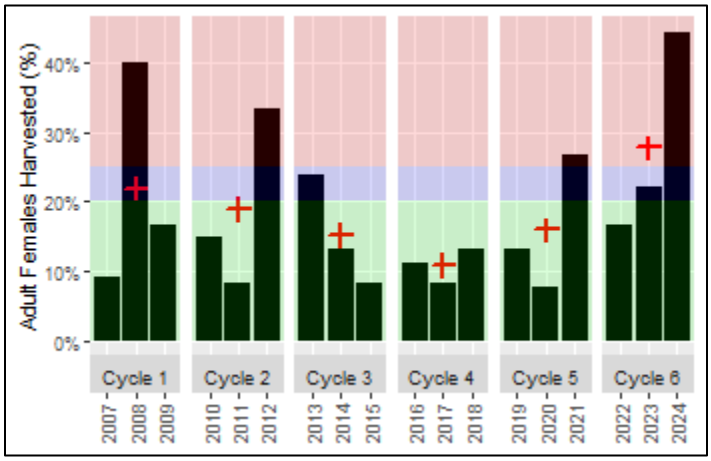
Assessment

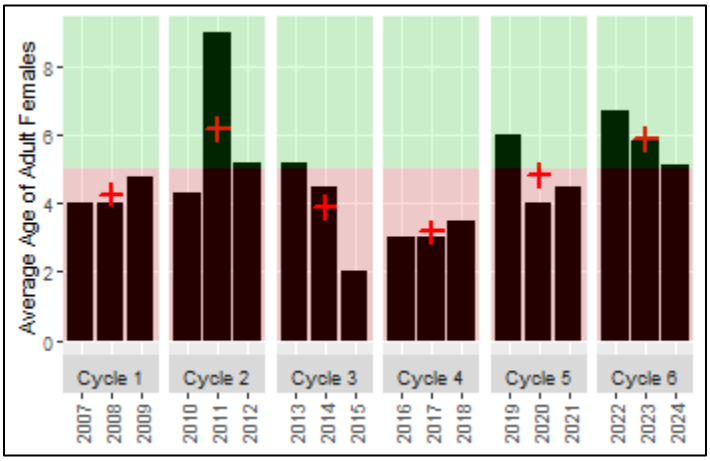
STABLE: The harvest limit for HA 6 was reduced from 21 to 15 in HY2016 in an attempt improve quality of harvest in the hunt area, but was recently increased to 18 at the onset of the cycle. Mortality limits were reached in each year. Mortality densities therefore align this hunt area within a stable range, although nearly 50% of maximum allowable harvest were comprised of adult females in HY2024, and female harvest increased by 20% compared to the previous cycle. Higher adult female harvest in the current cycle may result in overall reduction toward stable/sink, however, age and sex of harvest indicates a relatively stable population. Selectivity by hunters as well as guided hunting services has dropped during the cycle. Six mountain lion conflicts were reported in HY2022 – HY2024.

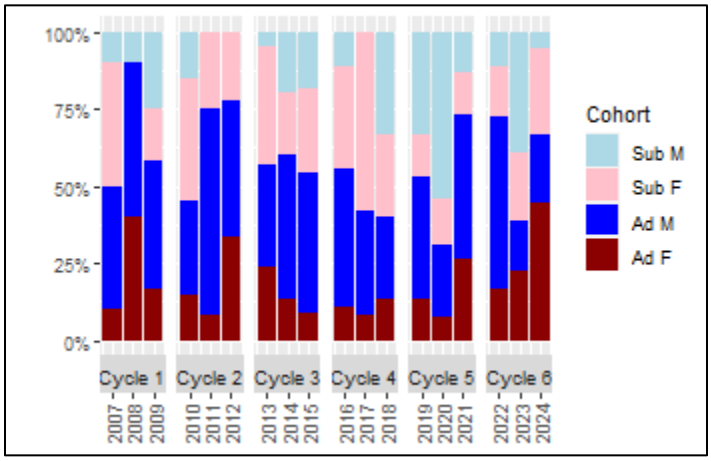
Hunt Area 6.

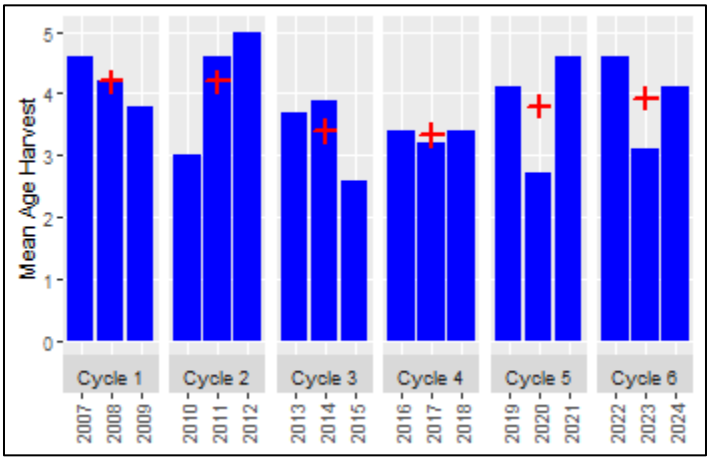

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

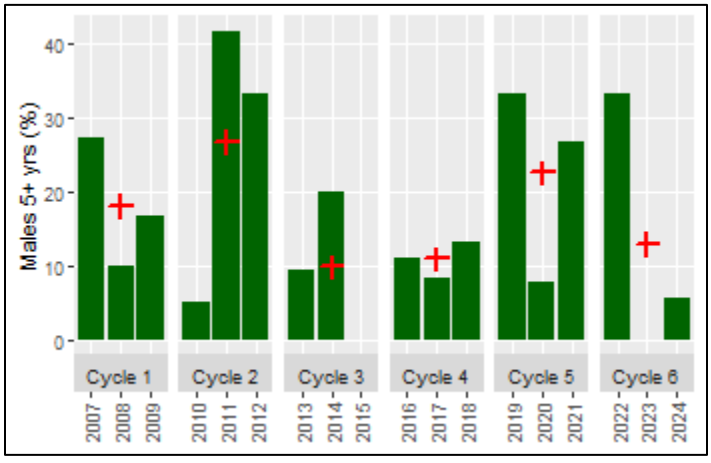

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

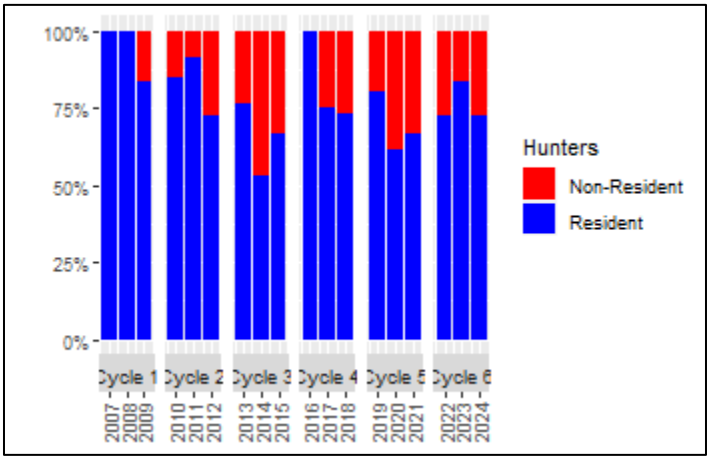

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southeast MLMU

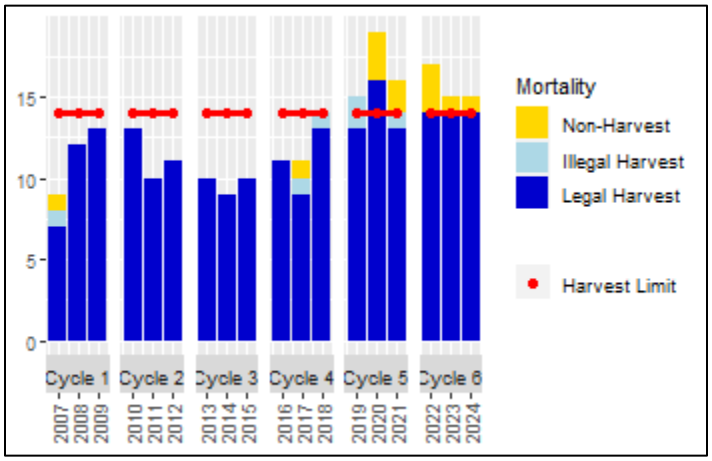
Hunt Area 7.

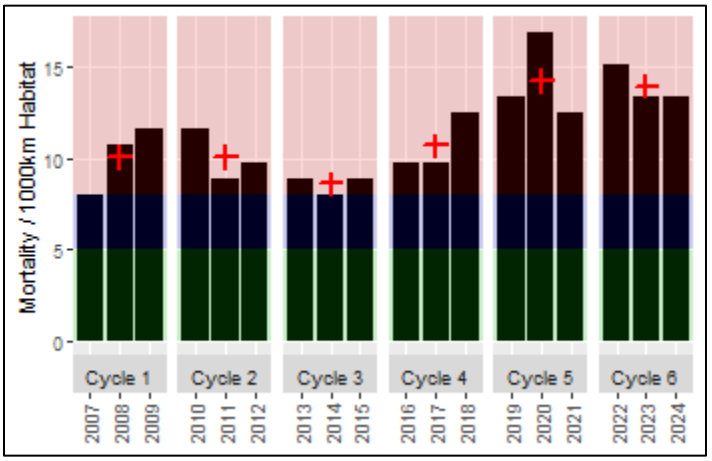
HY2022-HY2024 Regional Objective : Sink management

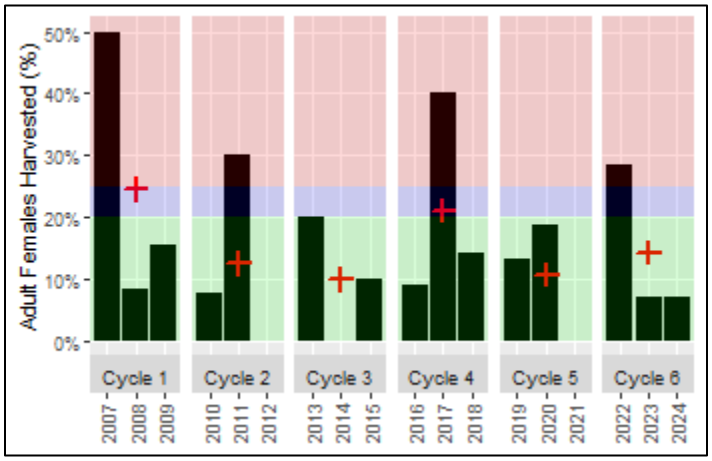
Assessment

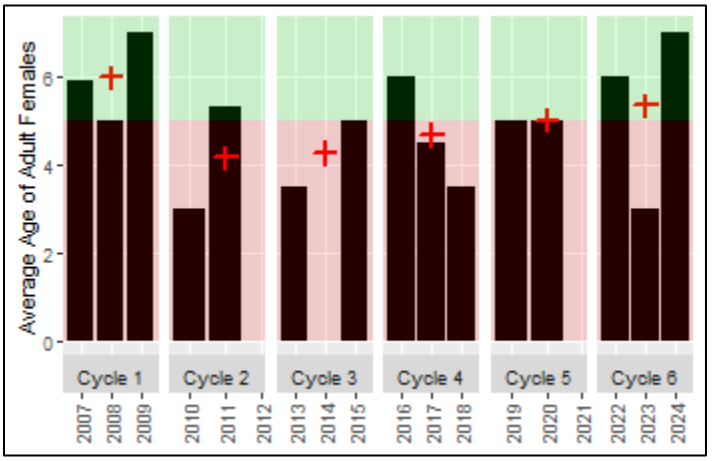
STABLE/SINK: HA 7 regularly reaches mortality limits, which have remained unchanged. As in previous cycles, while mortality densities demonstrate sink function the age structure remains relatively stable. Harvest aligns well with habitat estimates. Immigration from Colorado likely impacts mountain lion densities in HA 7, although harvest is not overly concentrated along the border. Although less older aged males were harvested, immigration from the south does not seem to show a dominant sub-adult dispersal in the harvest despite a reduction in selectivity by hunters. Three conflicts were reported during the cycle.

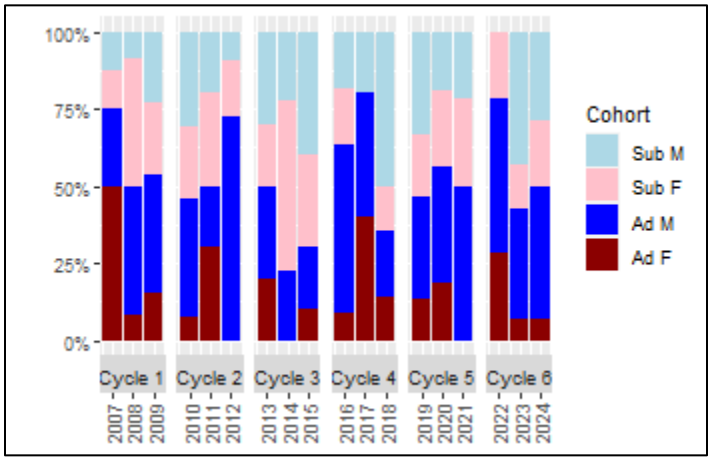
Hunt Area 7.

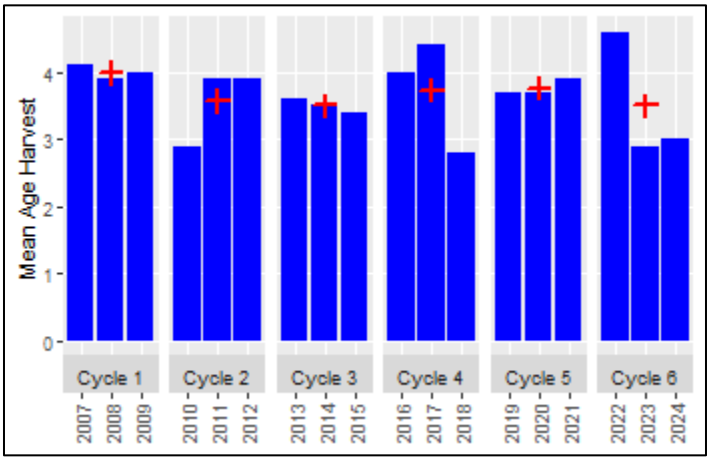

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

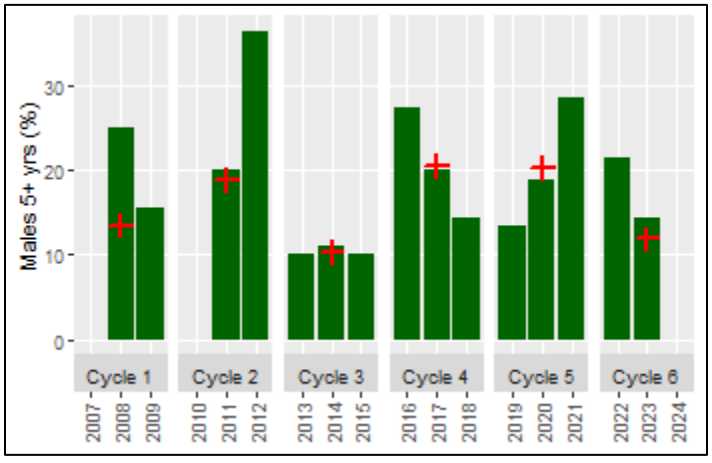

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

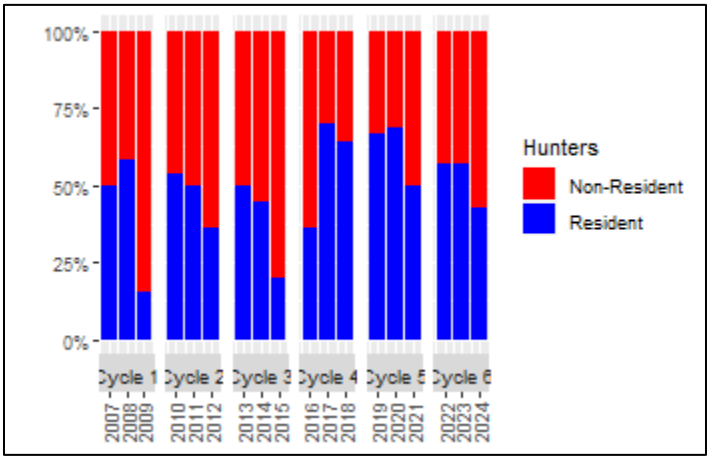

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southeast MLMU

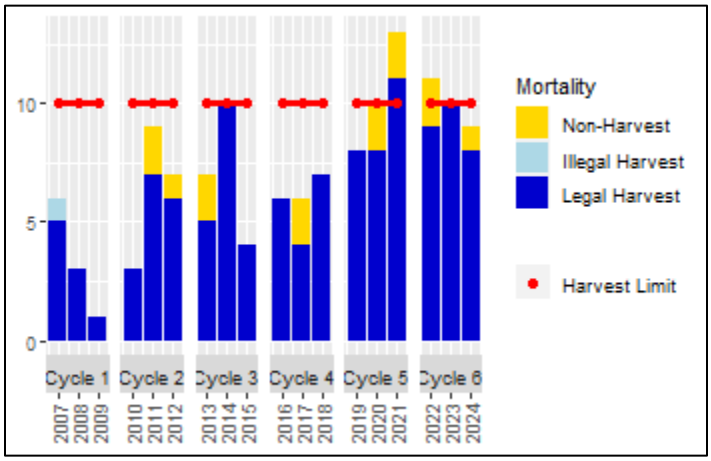
Hunt Area 8.

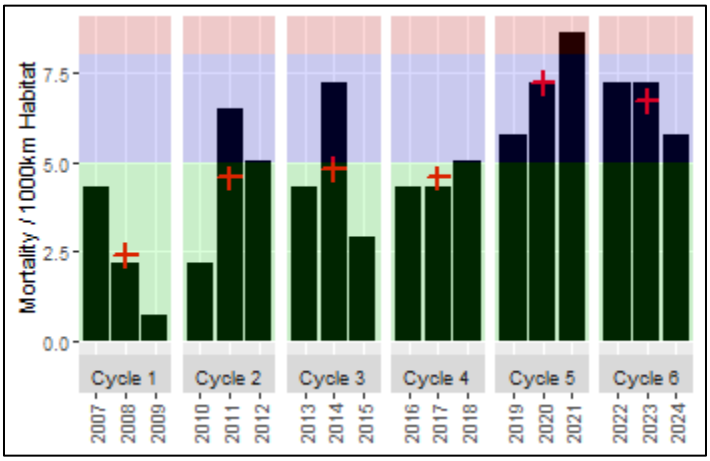
HY2022-HY2024 Regional Objective : Stable management

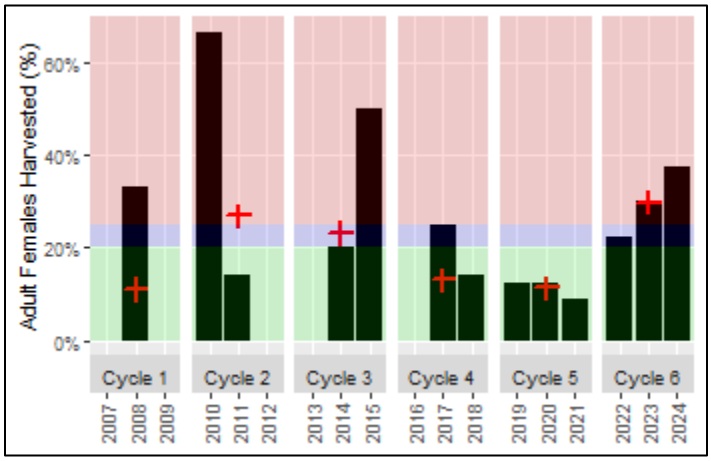
Assessment

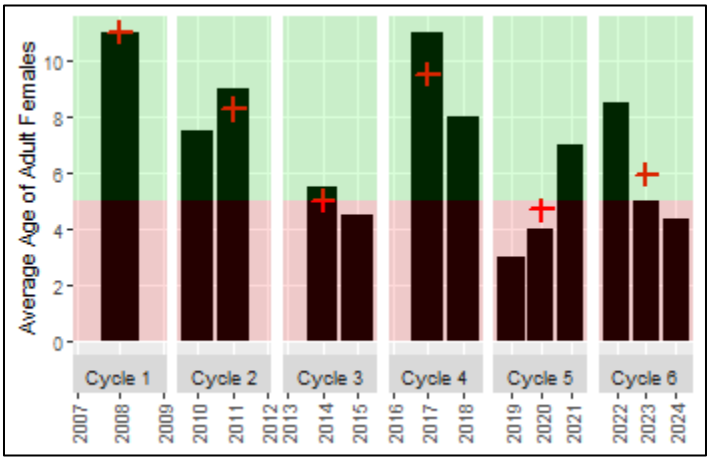
STABLE/SINK: HA 8 maintained the same harvest as the previous cycle, with HY2023 reaching allowable mortality. Human-caused mortality densities maintained in stable status, and good age structure in the harvest is represented by adult animals in the harvest. However, this structure is supported by adult female mortality above 25% for two years in the current cycle, indicating a suppression of reproductive output in the hunt area. Guided hunts have also maintained during the cycle, and correspond to the portion of non-resident hunters. Conflicts are rare, but one conflict was reported during the cycle in HY2022.

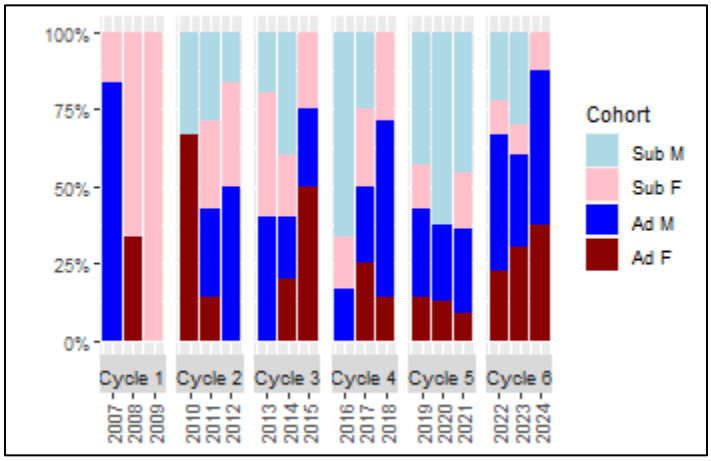
Hunt Area 8.

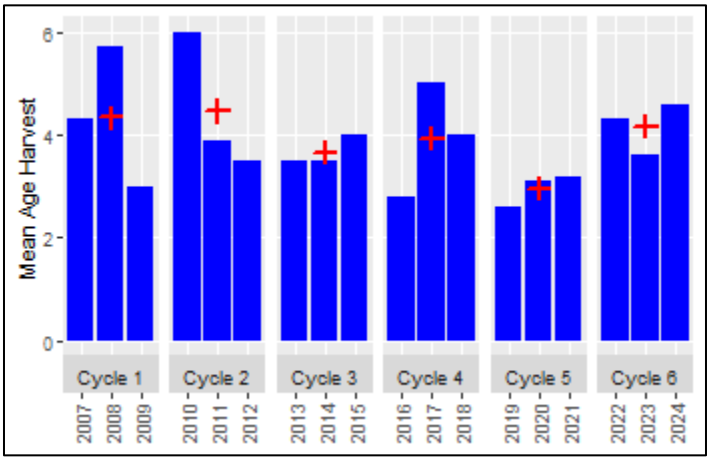

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

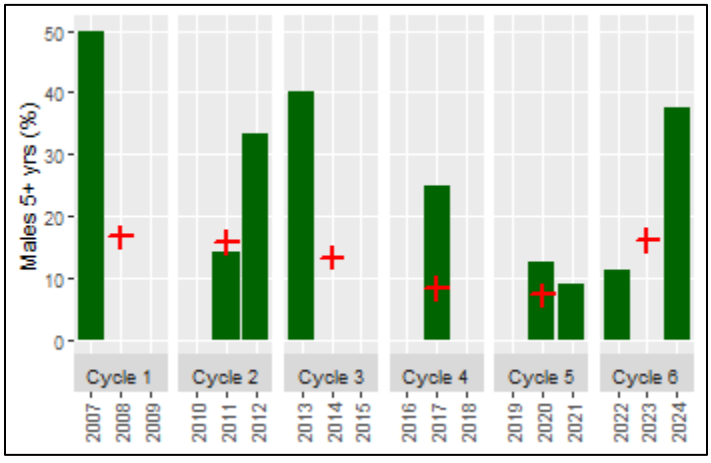

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

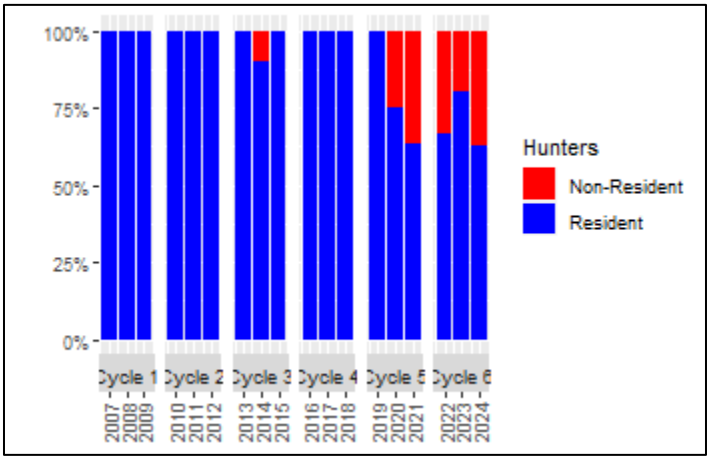

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southeast MLMU

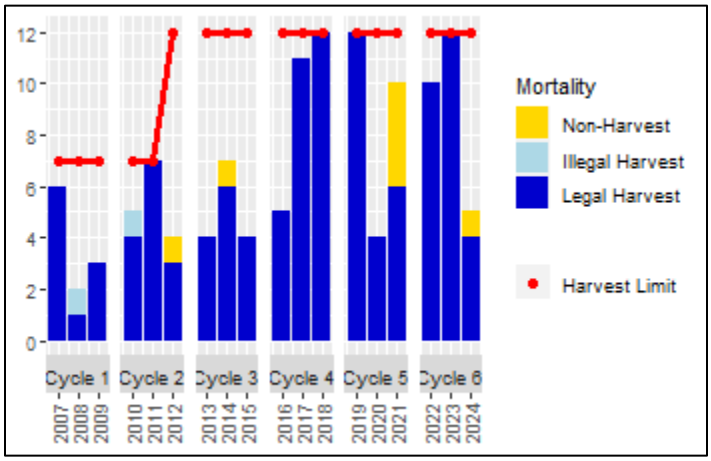
Hunt Area 9.

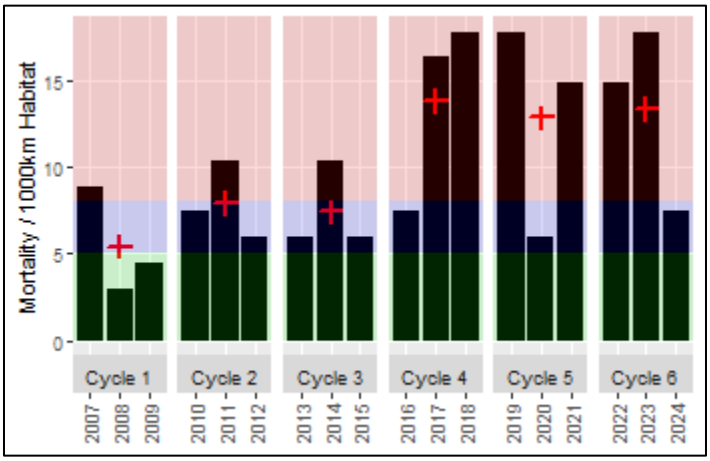
HY2022-HY2024 Regional Objective : Sink management

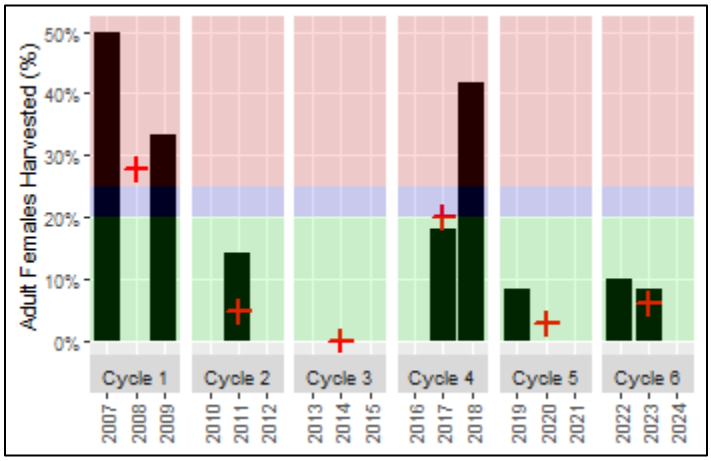
Assessment

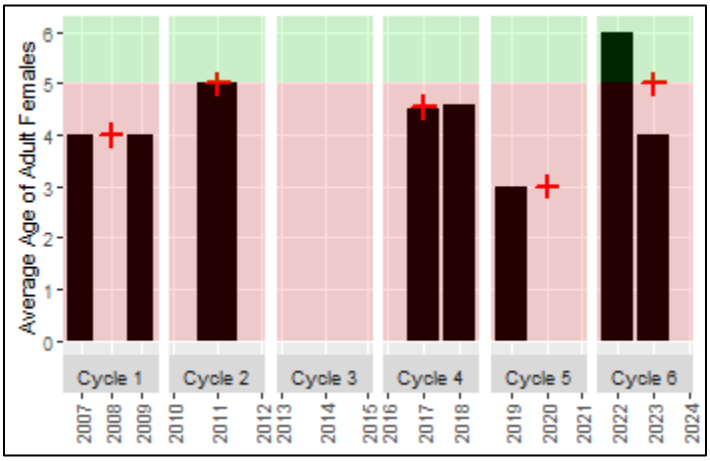
STABLE/SINK: HA 9 incurs variable harvest, typically reaching mortality limits once within each cycle. Overall, mortality densities indicate sink dynamics in this hunt area, and harvest aligns well with estimated habitat with most harvest occurring in the southern portion of the area. Adult female harvest remains low, but HA 9 has maintained lower adult-aged cohorts and overall age in the harvest. One reason for the observed age structure may be due to local mortality densities in the southern portion being offset by little harvest north. One conflict was reported in the last 3-yr cycle. Reported selectivity remains very high at ~75% but does not corresponded with harvest quality. Guide services have also increased in the area.

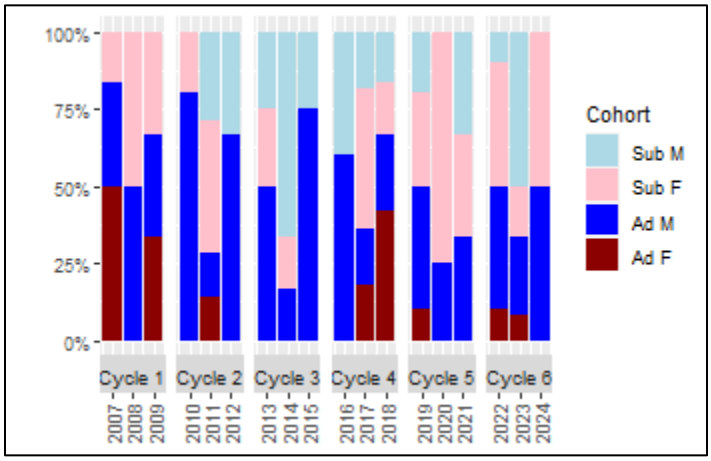
Hunt Area 9.

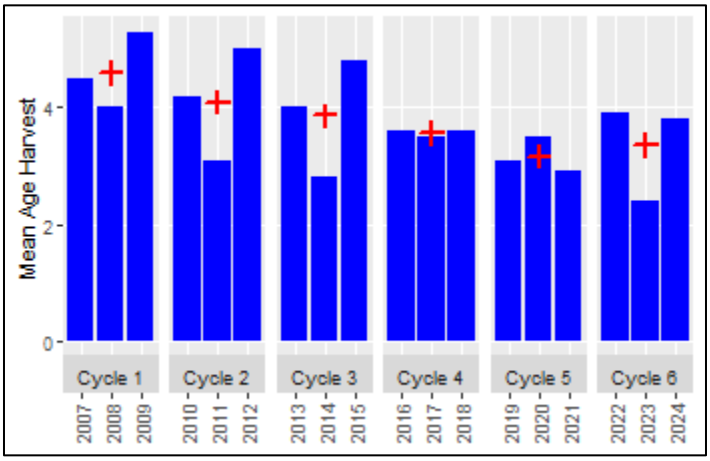

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

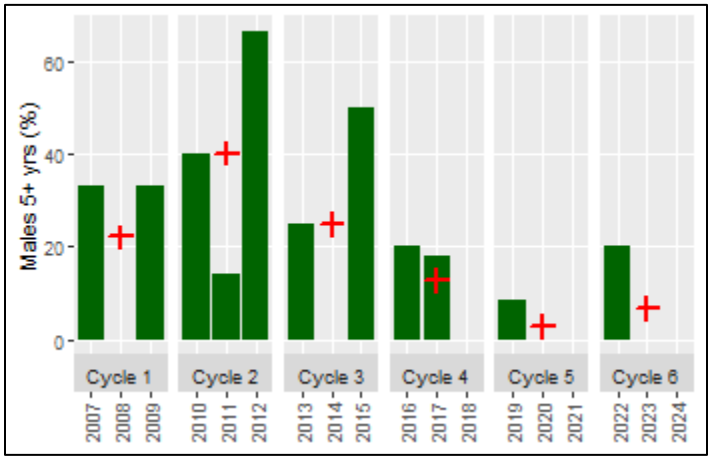

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

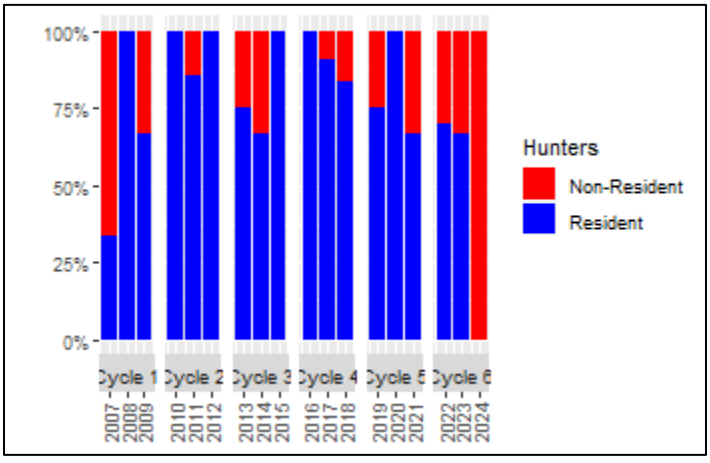

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southeast MLMU

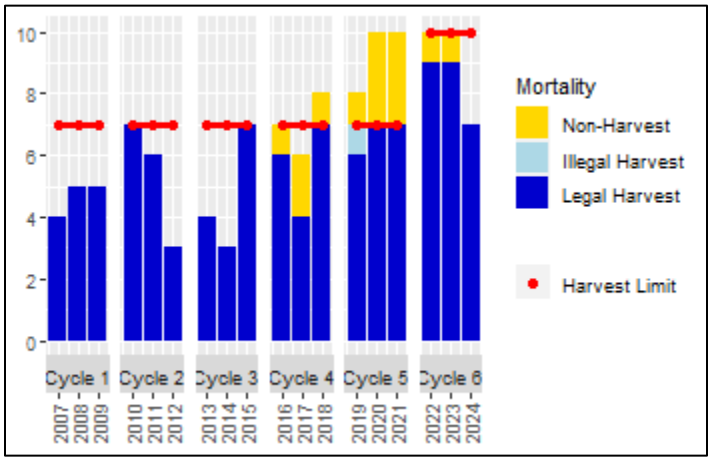
Hunt Area 10.

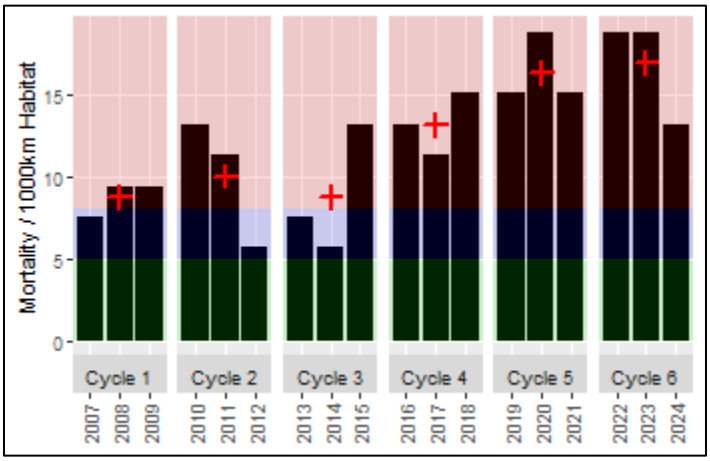
HY2022-HY2024 Regional Objective : Sink management

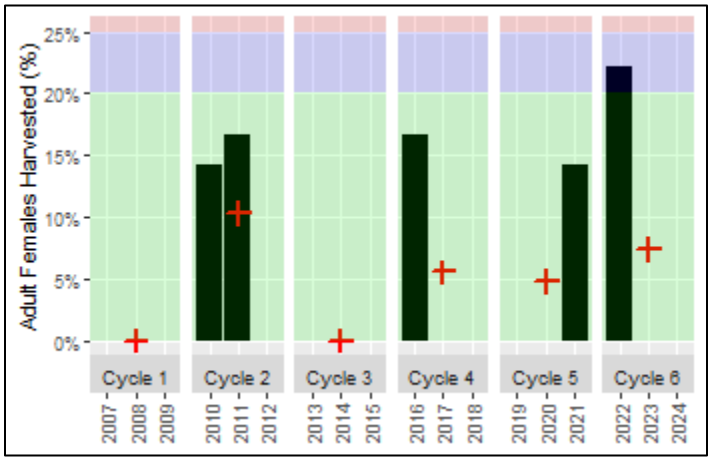
Assessment

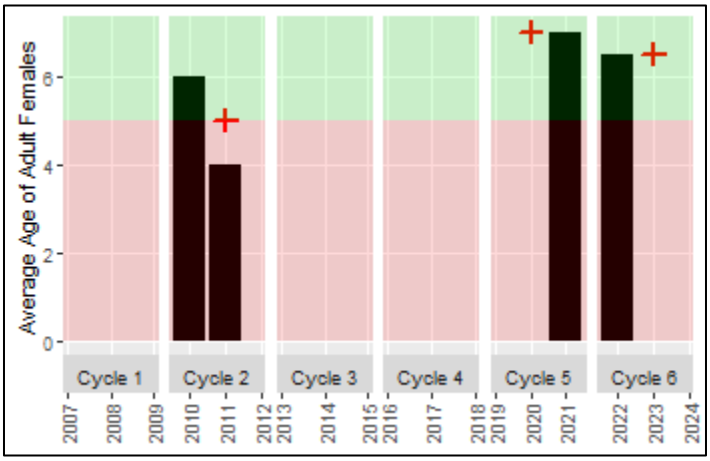
SINK: HA 10 has incurred elevated harvest during the current cycle, but did not reach mortality limits that were increased prior to the cycle. Mortality densities indicate sink status and HA 10 has few adults represented in the harvest. The Regional objective for sink management is being met. Non-resident hunters comprise about half the harvest that occurs in HA 10, guided hunts have decreased, and selectivity by hunters remains low. Two sheep depredation events were reported as conflicts during HY2022 – HY2024.

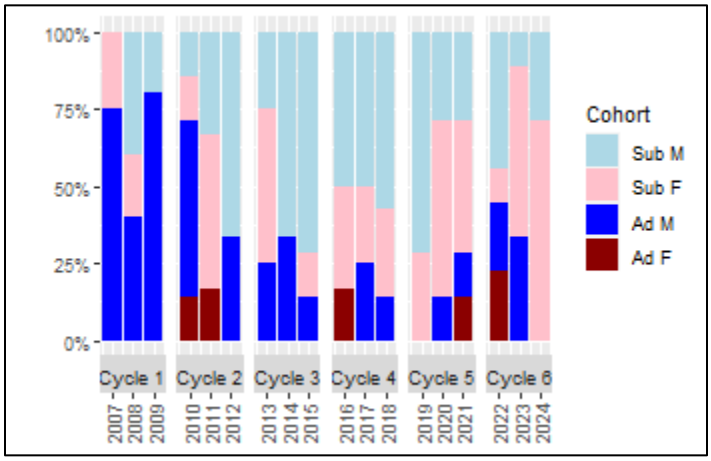
Hunt Area 10.

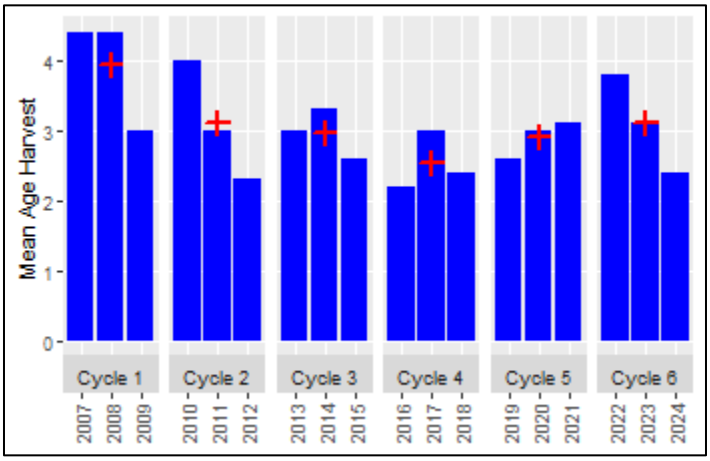

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

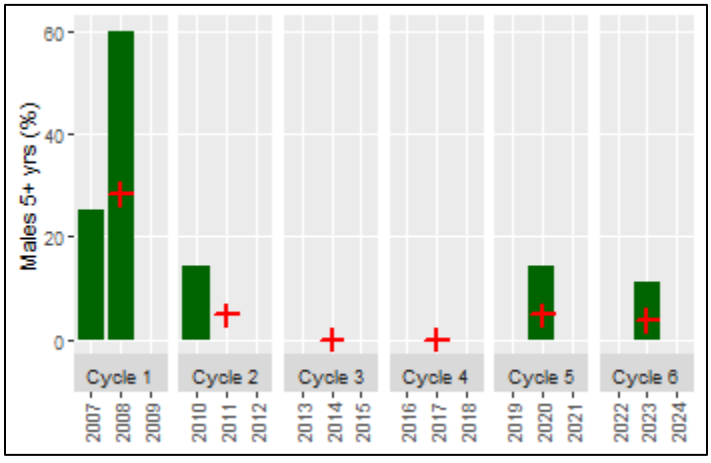

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

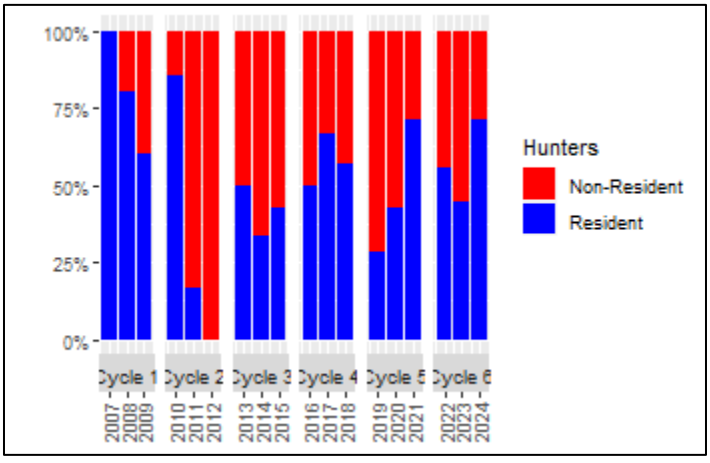

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident

APPENDIX A: Southeast MLMU

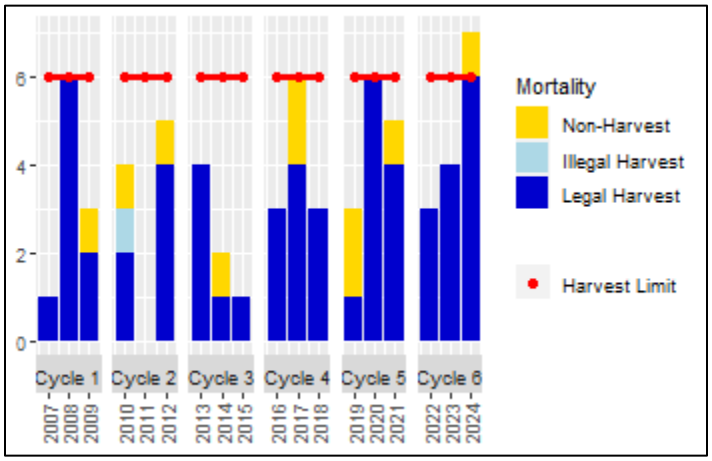
Hunt Area 16.

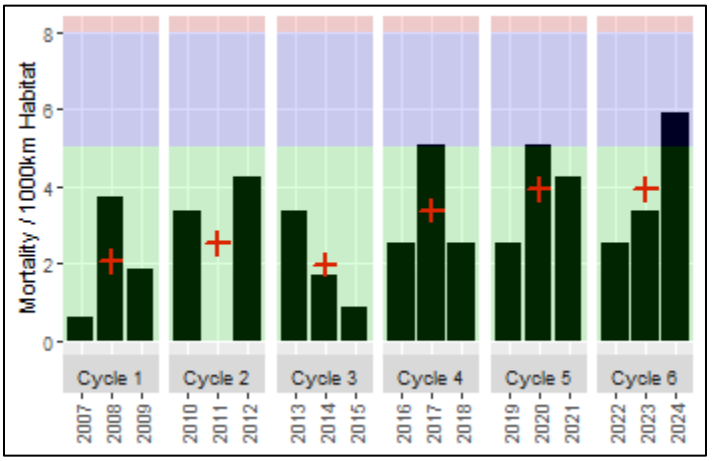
HY2022-HY2024 Regional Objective : Stable management

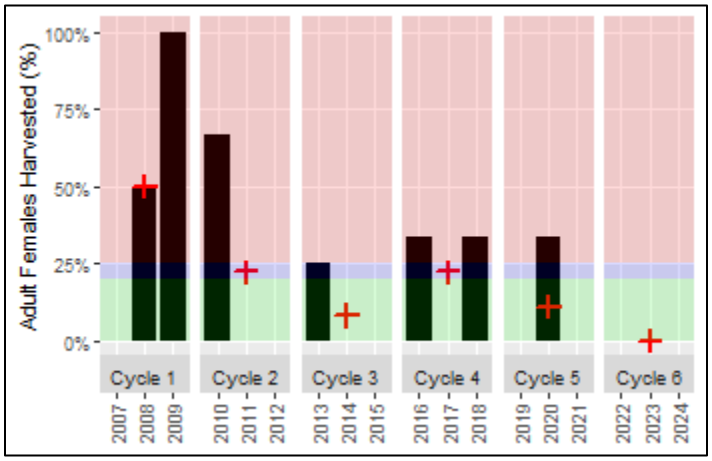
Assessment

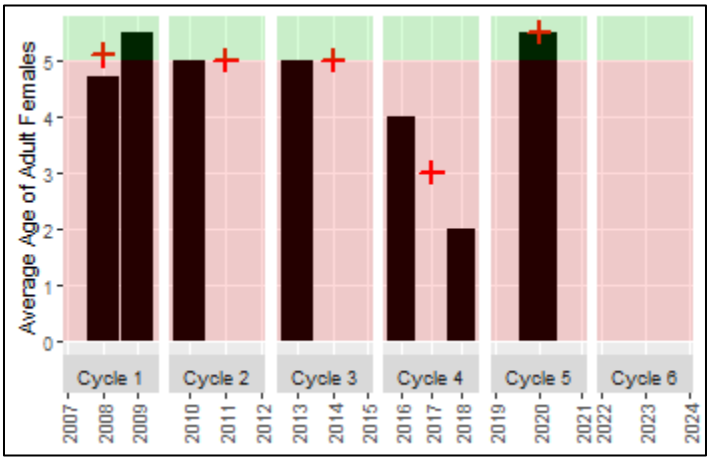
STABLE: Mortality densities in HA 16 have remain unchanged, still generally within source management range. Allowable mortality was reached in HY2024. While harvest is variable, adult female harvest occasionally exceeds 25%, but with no adult female mortality observed during many seasons. Average age of harvested animals has maintained near 3.5 yrs which aligns well with moderate hunting pressure. Data generated from harvested animals does not provide adequate context for evaluation of the local mountain lion population, but HA 16 has less contiguous habitat when compared to hunt areas that encompass mountainous terrain or front ranges, and local populations are likely stable but at low densities. One conflict was reported in the last cycle. Guided hunts have remained stable during the past few cycles but reported selectivity has decreased and track observations remain low.

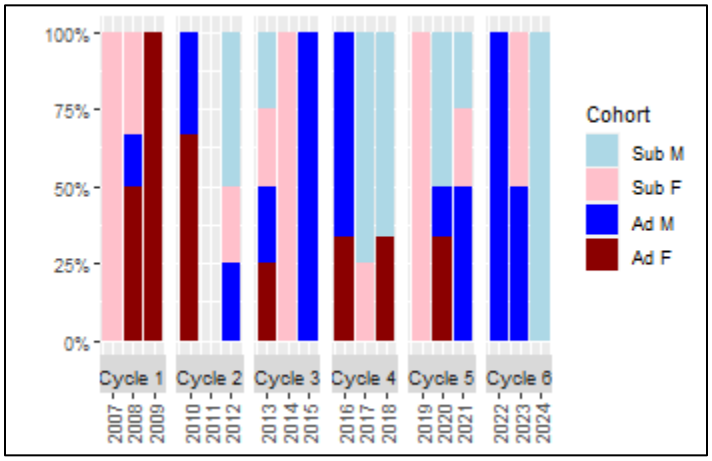
Hunt Area 16.

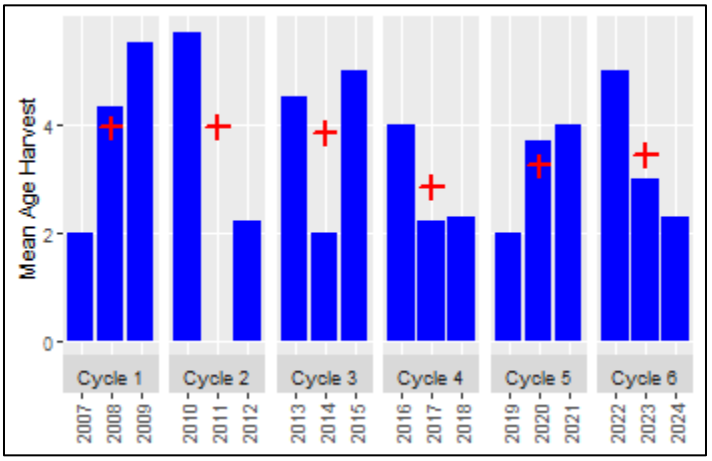

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

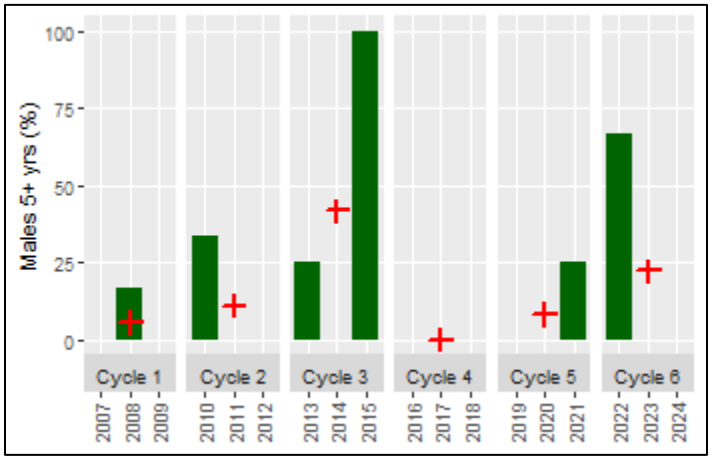

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

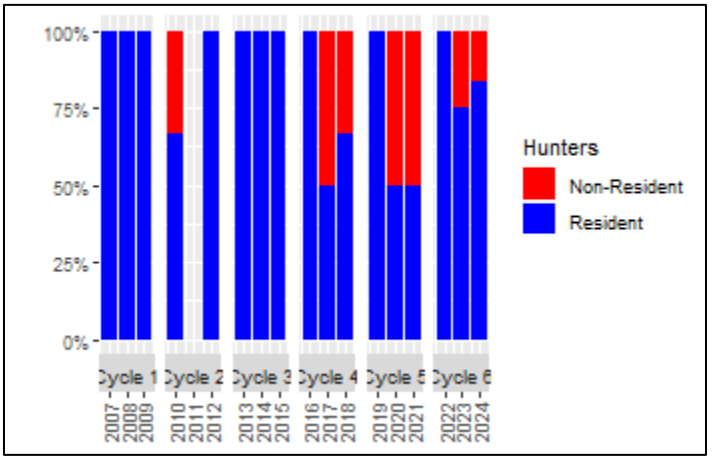

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident

APPENDIX A: Southeast MLMU

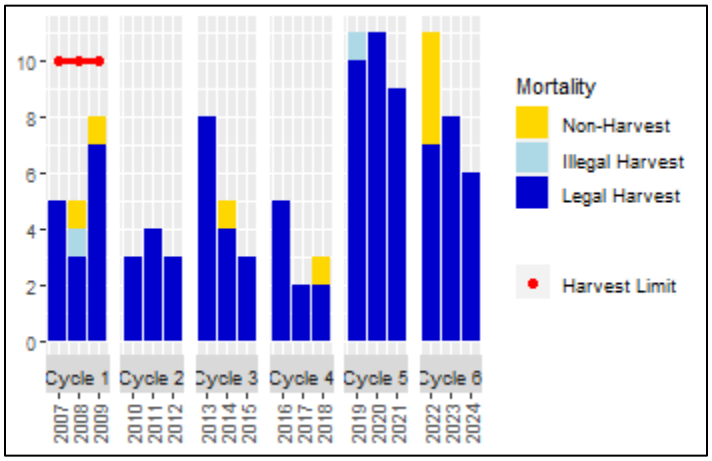
Hunt Area 27.

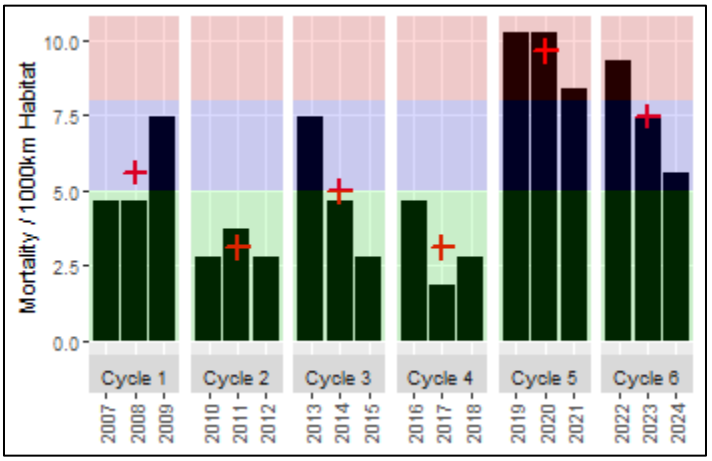
HY2022-HY2024 Regional Objective : Sink management

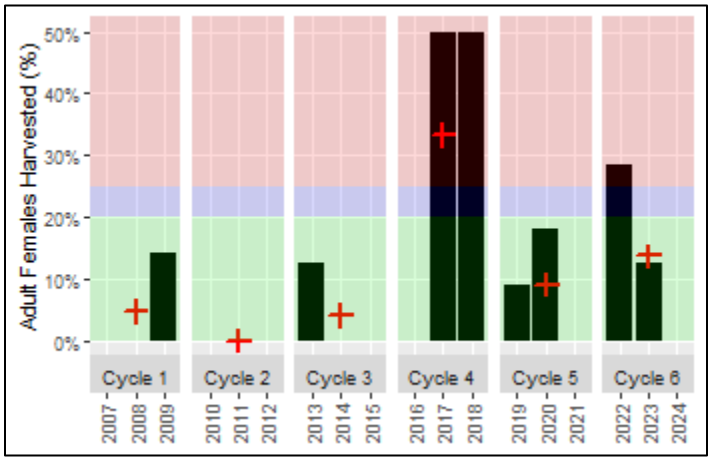
Assessment

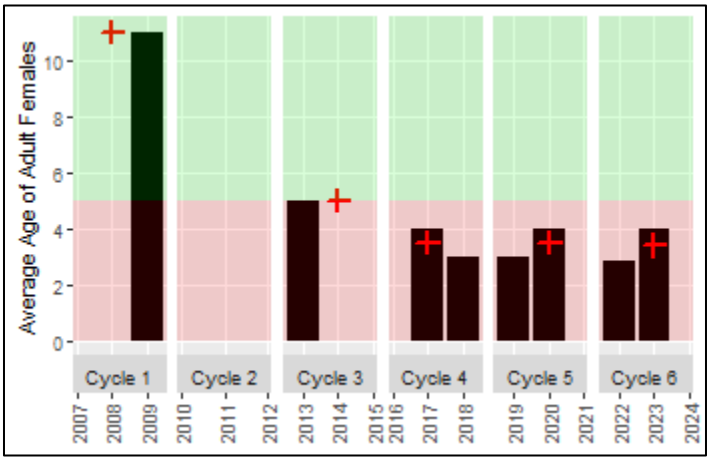
STABLE: HA 27 reported a slight decrease in harvest during the current management cycle, mostly aligning with stable management function. Hunter selectivity is around 50%, with few guided hunts occurring and less tracks reported by hunters. Although not as many adult animals have been harvested as in previous cycles, metrics from this area indicate a stable population, with only one season showing adult female harvest above 25%. Four conflicts were reported in the hunt area during the cycle, mostly regarding proximity to housing on the southern edge of Casper, WY.

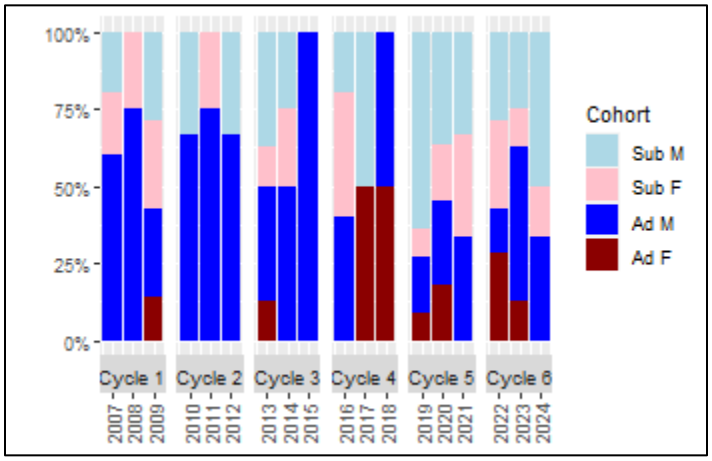
Hunt Area 27.

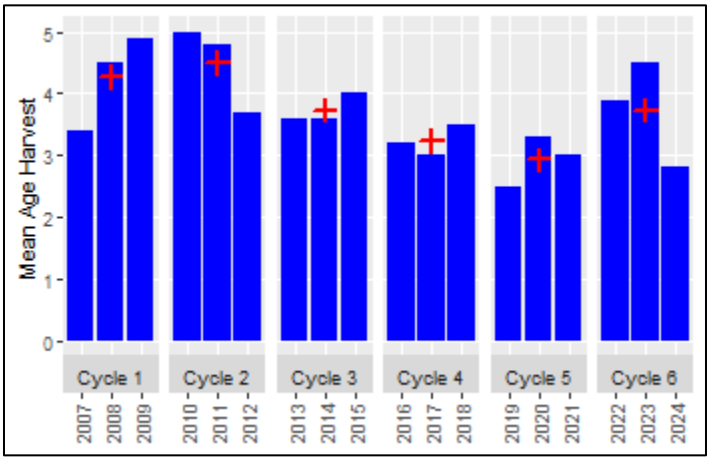

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

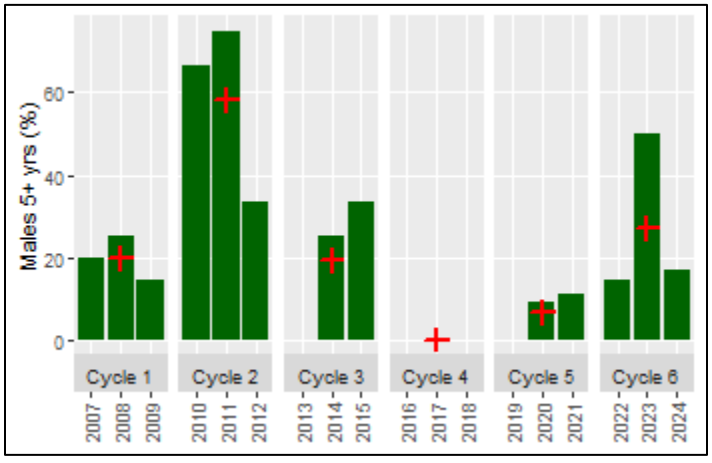

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

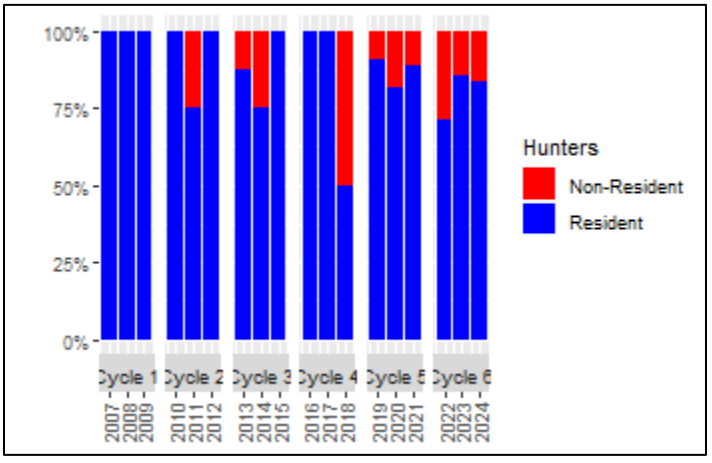

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southeast MLMU

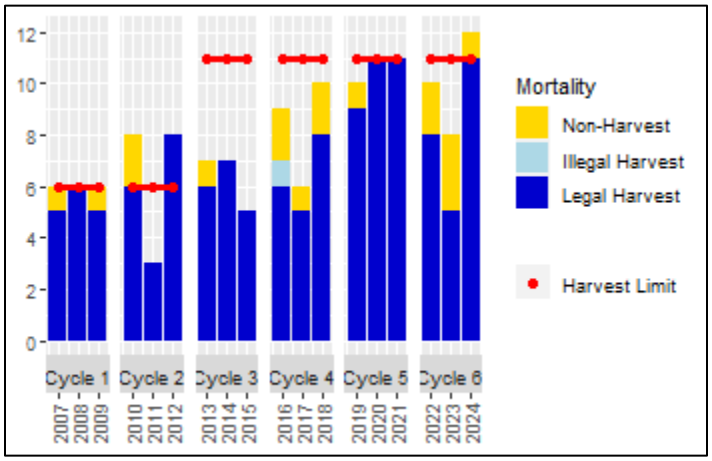
Hunt Area 31.

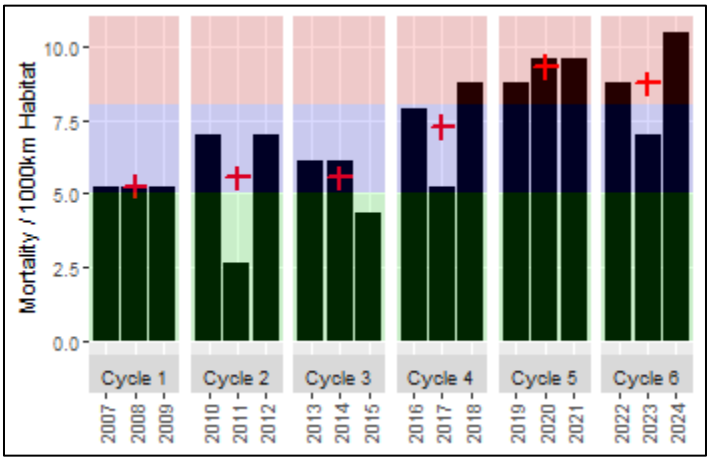
HY2022-HY2024 Regional Objective : Sink management

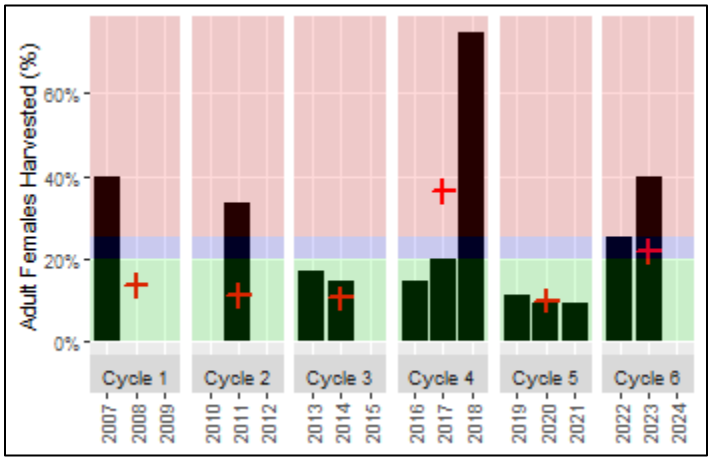
Assessment

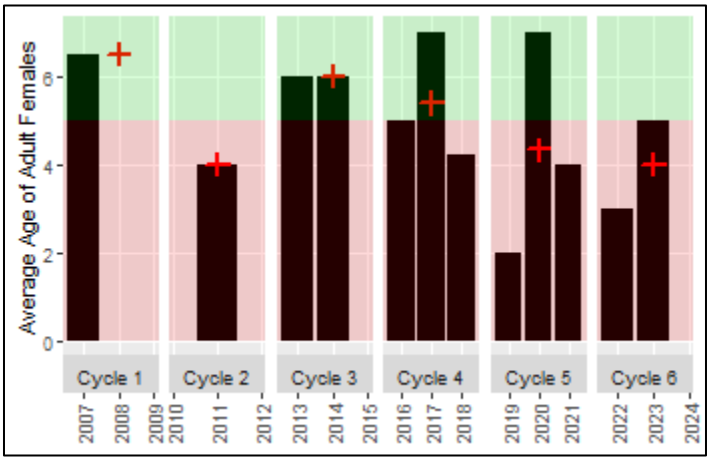
STABLE/SINK: HA 31 reached mortality limit once in the current cycle but slightly reduced overall compared to the previous cycle. Even so, mortality densities continue to indicate sink status. In addition, adult female harvest was at or above 25% during the cycle further indicating sink function. While adult males rebounded in the HY2024 harvest, the overall age of animals harvested slightly decreased. Guided hunts along with non-resident hunters declined, although selectivity remains near 60% and likely maintains some adults in the harvest. Of note, hunting opportunity in HA 31 is somewhat limited by winter closures on ungulate winter ranges which likely serves as a refuge for some mountain lions in the area. One depredation event as well as one encounter was reported for HA 31.

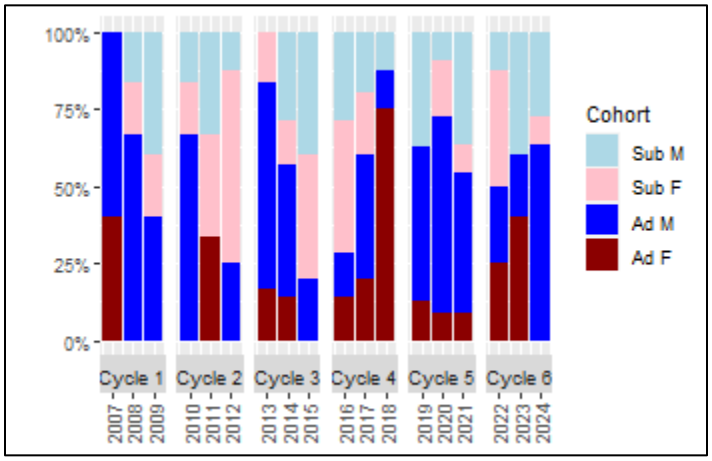
Hunt Area 31.

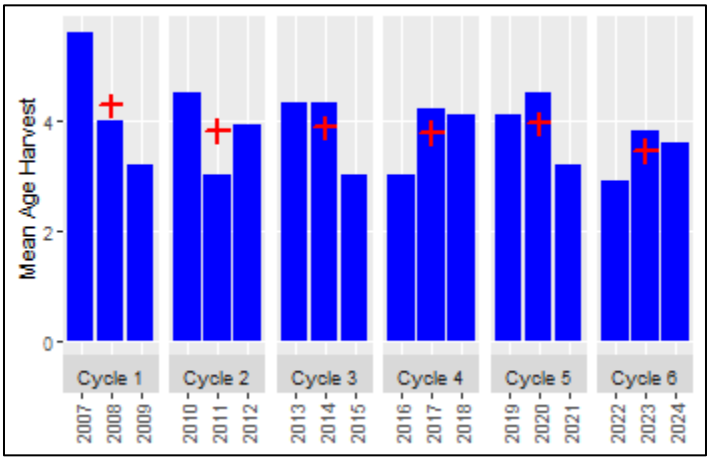

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

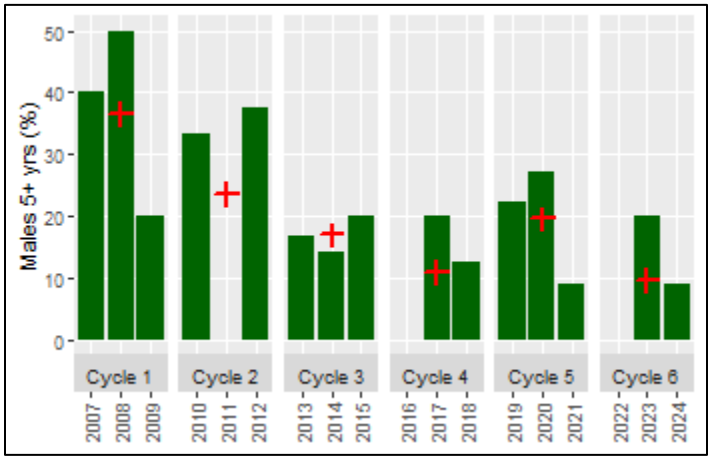

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

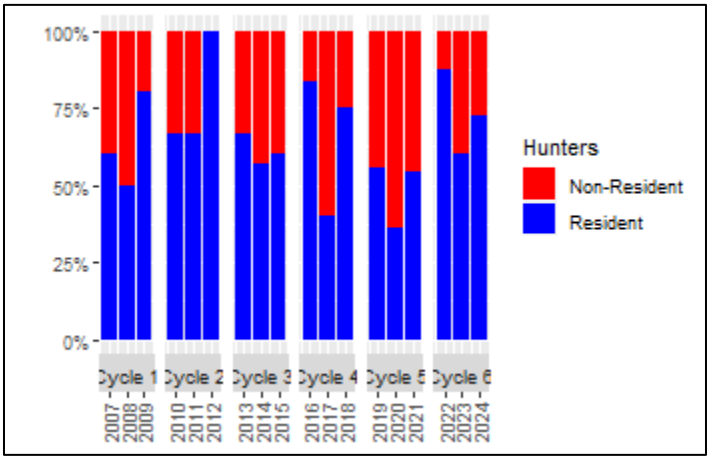

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southeast MLMU

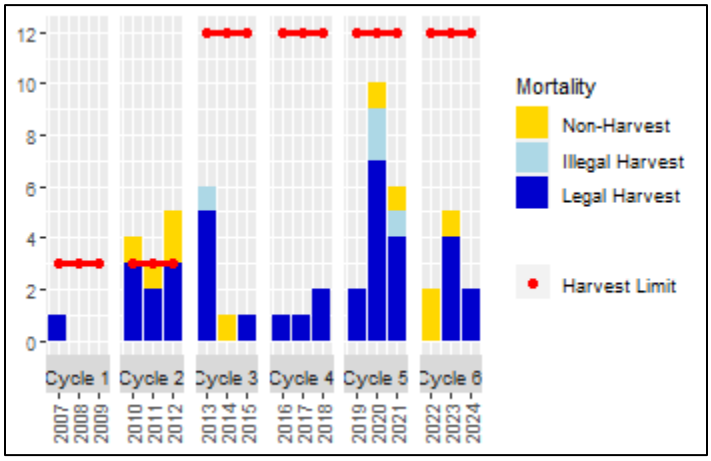
Hunt Area 25.

HY2022-HY2024 Regional Objective : N/A

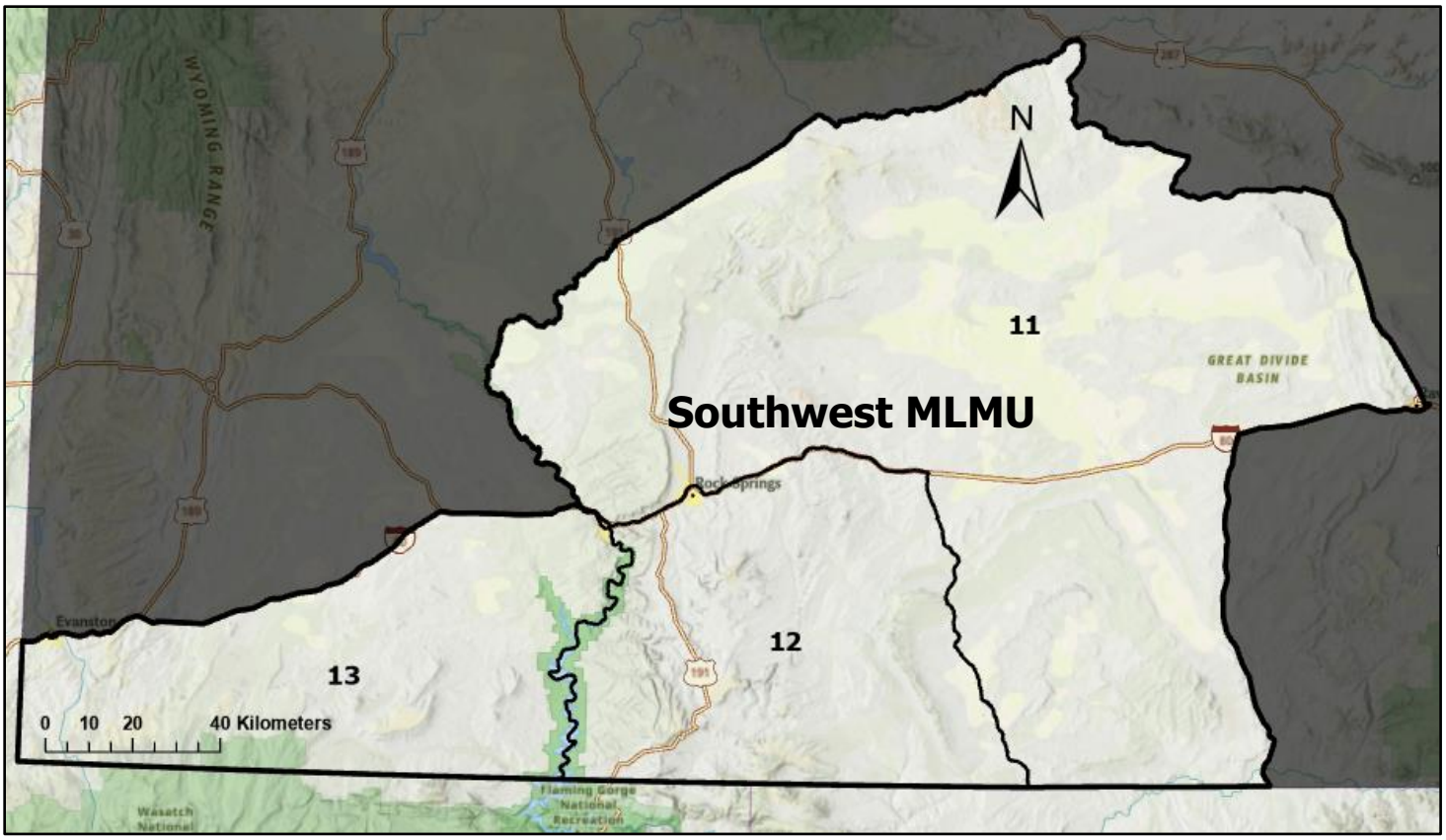
Assessment

N/A: HA 25 has low levels of dispersed habitat throughout the area and is not currently managed for population viability. Harvest decreased to an average of two animals harvested per season with no females harvested. Three conflicts were reported during the cycle.

Hunt Area 25.



SOUTHWEST MLMU



Overview

The Southwest MLMU comprises two hunt areas (HAs 12 and 13) with suitable mountain lion habitat and managed for sustainable mountain lion populations. Most harvest within HA 12 and HA 13 occur near the southern border and where habitat within the Uinta Mountains in Utah transition into high desert systems in southwest Wyoming. This likely results in variable mountain lion densities, with less estimated habitat in HA 13 and higher habitat estimates in HA 12 that likely support lower densities of mountain lions. Hunt Area 11 holds little suitable mountain lion habitat and is not managed for long-term population viability. One conflict was reported within this three-year management cycle.

APPENDIX A: Southwest MLMU

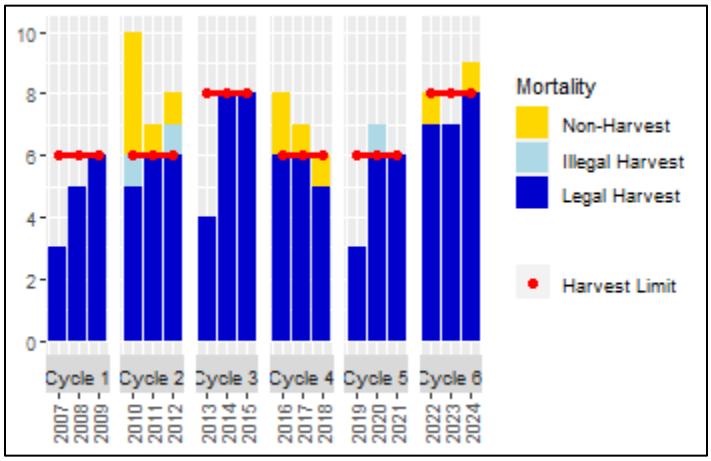
Hunt Area 12.

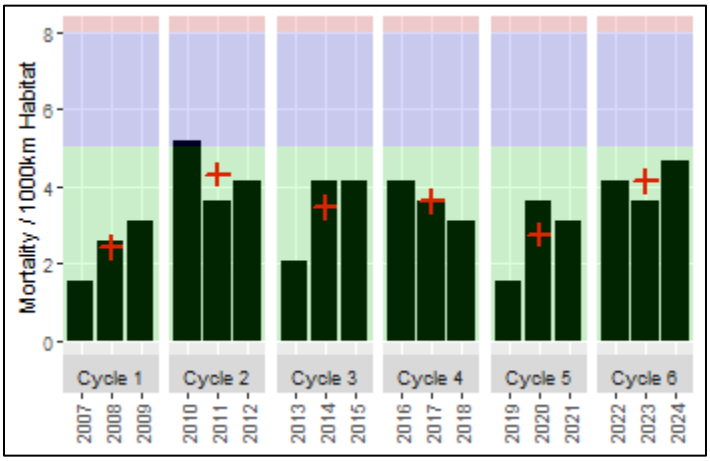
HY2022-HY2024 Regional Objective : Stable management

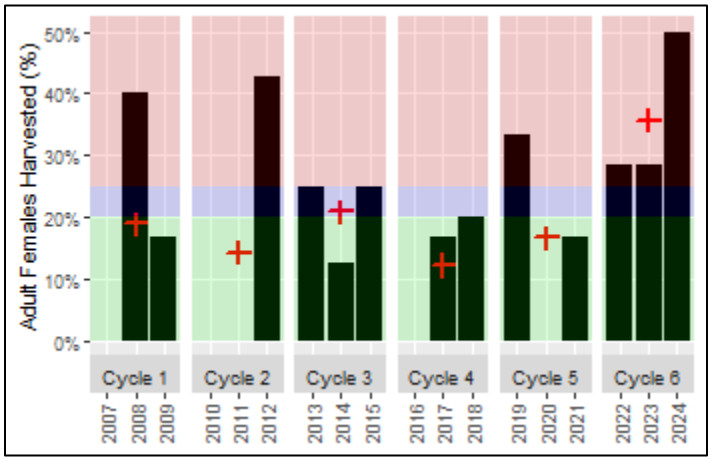
Assessment

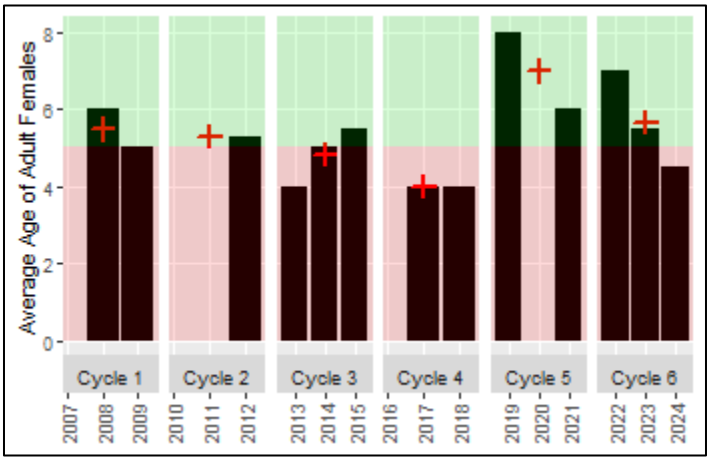
STABLE/SINK: Recent habitat evaluations increased suitable habitat considerably in HA 12, resulting in a change from the higher end of stability to source-level mortality densities. However, winter habitat in this area likely supports lower densities than more productive habitats across the state. The current cycle reported near 30% increase in mountain lion mortality in HA 12. Limited samples restrict robust assessment, but adult mountain lions were largely present in the current cycle harvest. Notably, adult female harvest was over 25% each season with a high of 50% adult female harvest in HY2024. Strong selectivity of hunters during the cycle was near 70%, with variable but overall increased days spent per harvest. This likely contributes to adult cohorts and increased age of harvested animals during the cycle, but is contradictory to the extensive harvest of adult female mountain lions. Adult female mortality indicates reproductive suppression in the area. No mountain lion conflicts were reported during the current cycle.

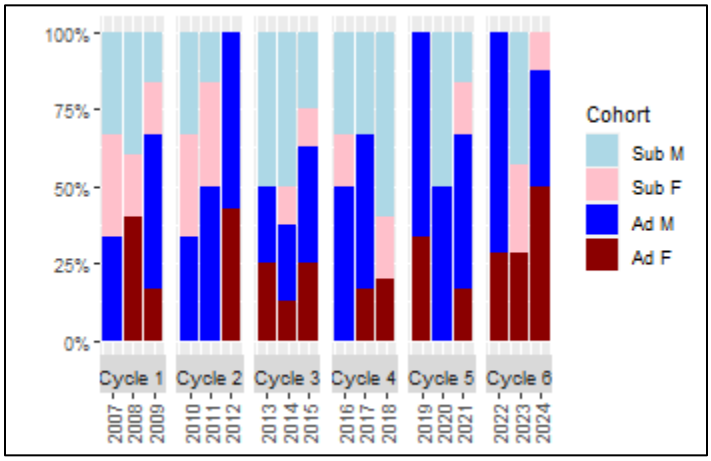
Hunt Area 12.

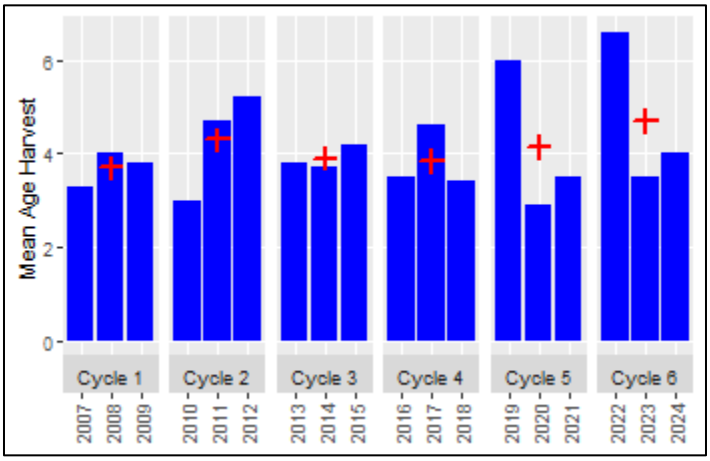

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

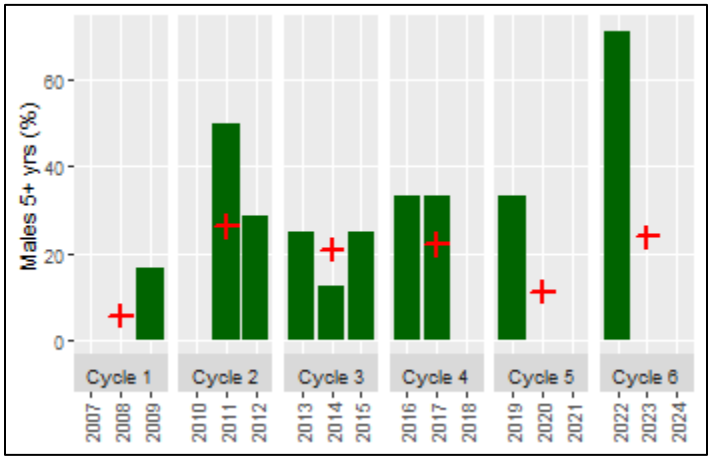

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

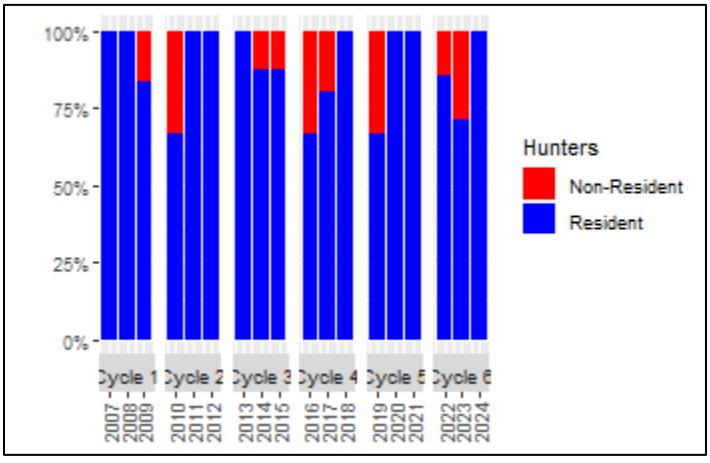

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southwest MLMU

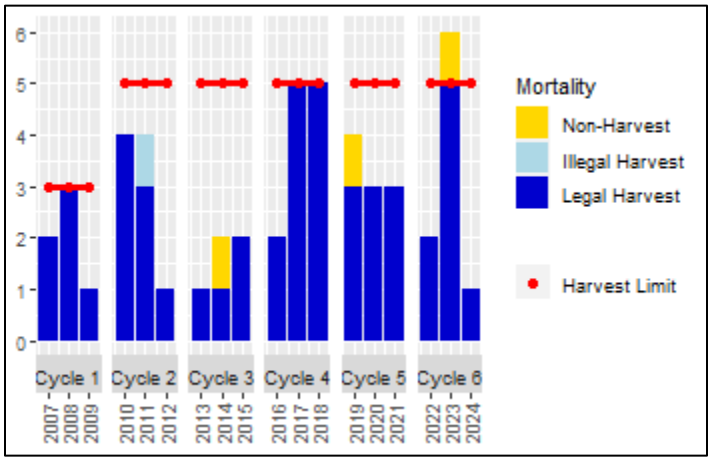
Hunt Area 13.

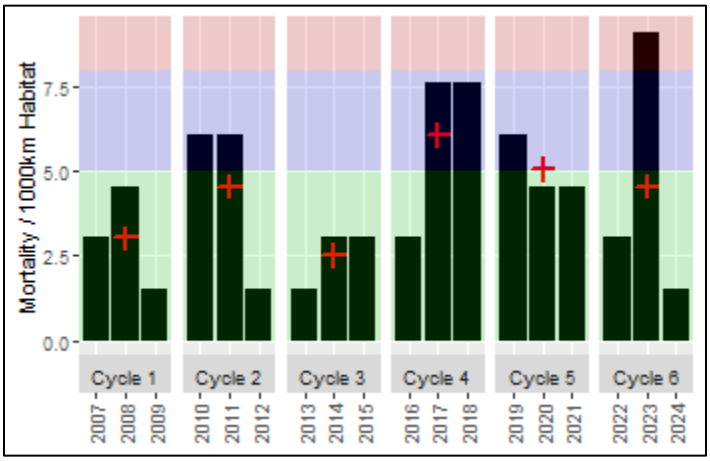
HY2022-HY2024 Regional Objective : Stable management

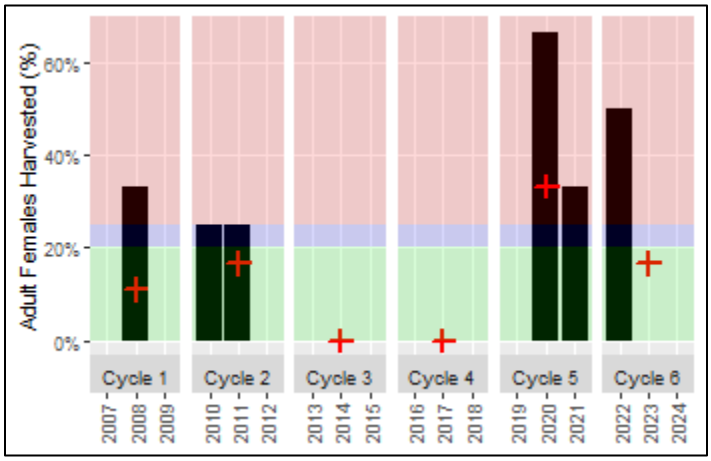
Assessment

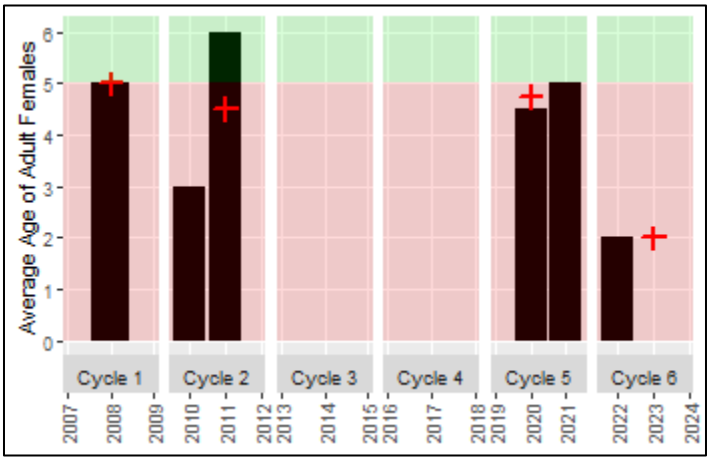
STABLE: Harvest was sporadic during the management cycle with the mortality limit reached in HY2023, but with less overall harvest than in the previous cycle. The majority of mountain lion habitat that supports harvest occurs south of the Utah border, which is highlighted by where harvest occurs. During this cycle harvest consisted almost exclusively of sub-adult animals, with only one adult female and one adult male harvested in HY2022. No conflicts have been reported since 2018.

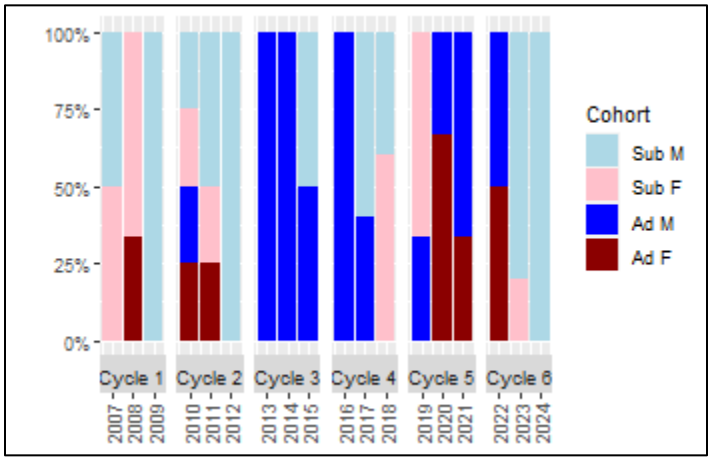
Hunt Area 13.

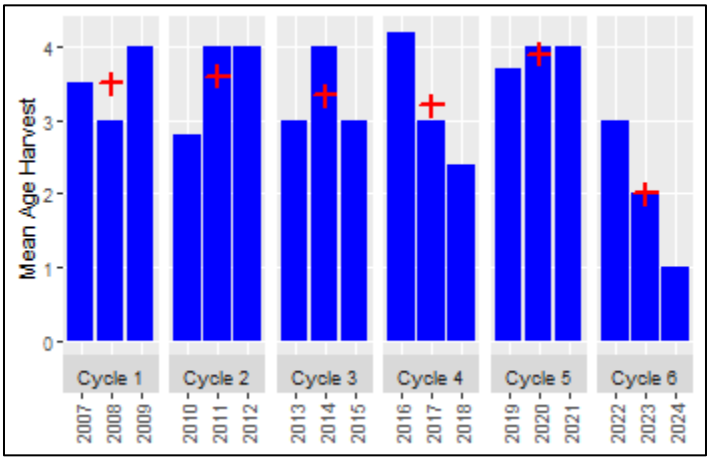

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

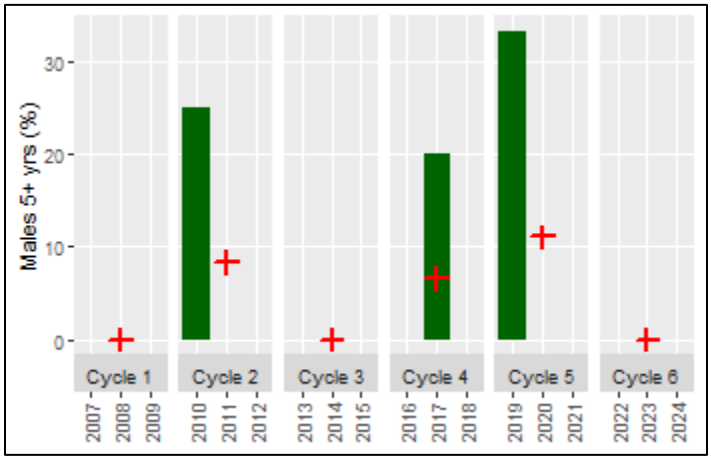

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

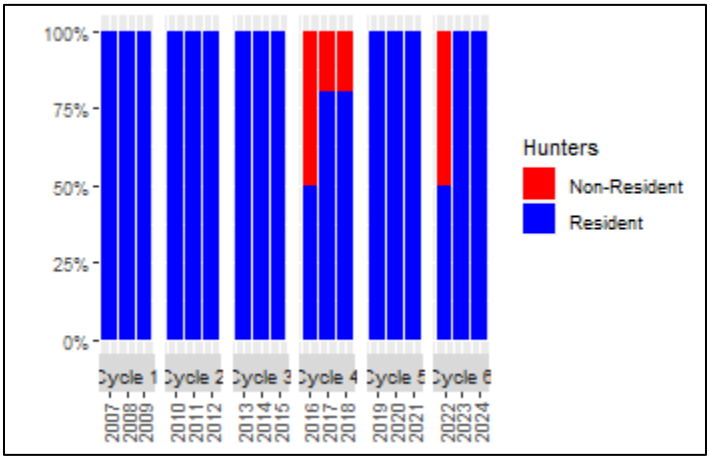

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: Southwest MLMU

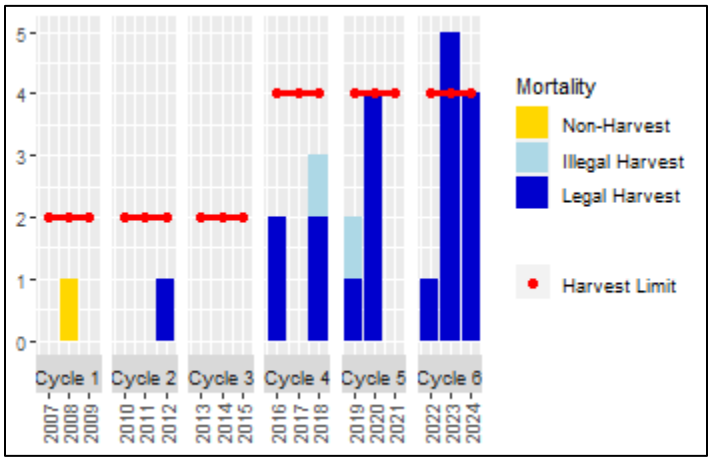
Hunt Area 11.

HY2022-HY2024 Regional Objective : N/A

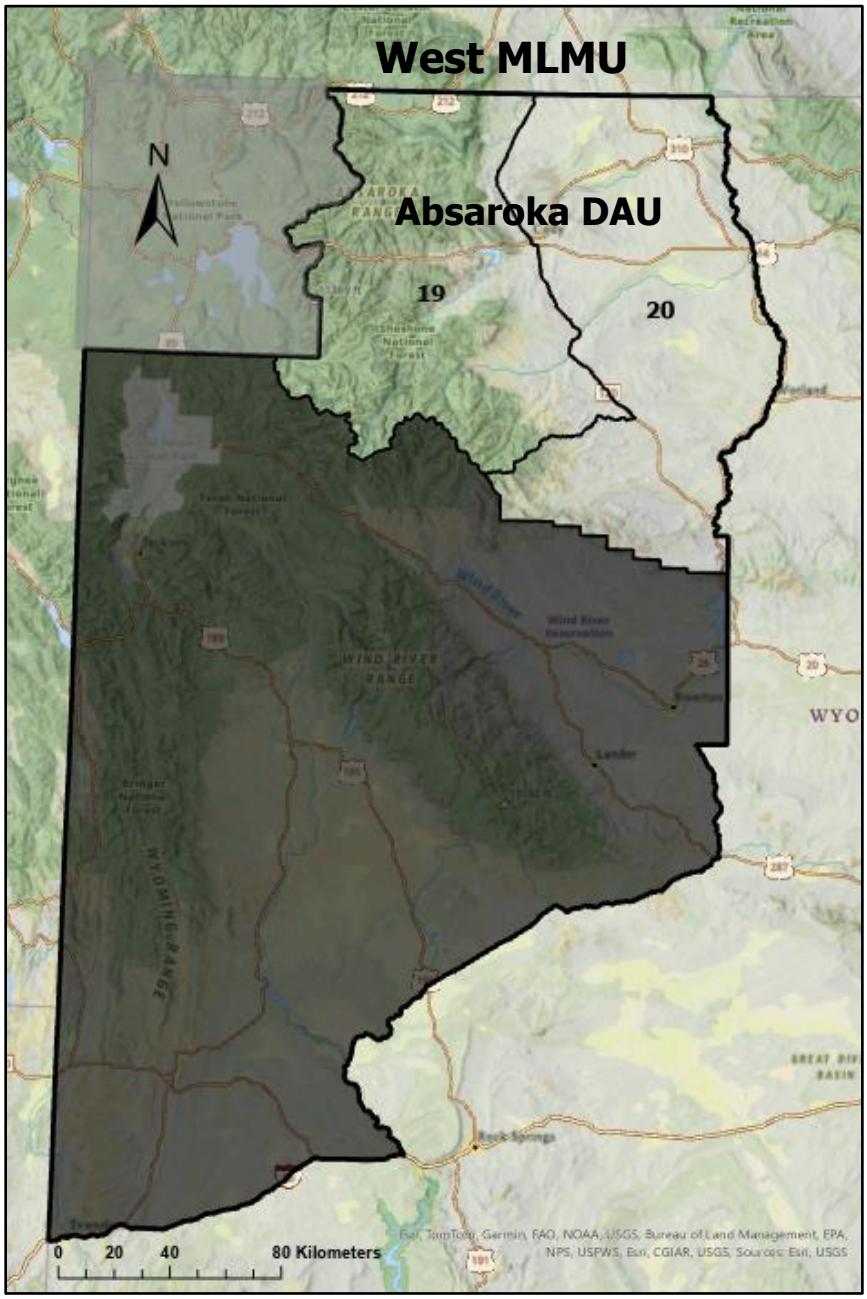
Assessment

N/A: HA 11 has low levels of dispersed habitat throughout the area and is not currently managed for population viability. Harvest increased in HA 11 during the current cycle, with more harvest occurring than in multiple previous cycles combined and with most harvest of adult aged animals clustered in the western portion of the area.

Hunt Area 11.



ABSAROKA DAU



Overview

The Absaroka DAU was reconfigured prior to HY2016, with HA 19 and HA 20 boundaries redrawn within the DAU. Trend data is relevant at the DAU level, but hunt area trends are only applicable since HY2016 (reflected in shaded areas within panel figures). The Absaroka DAU is functioning near regional objectives and appears a well-balanced unit with tendencies toward sink status across the basin but with source population trends where higher quality and expansive habitats exist. HA 20 functions with removal of young dispersing animals throughout the Bighorn Basin with the exception of the southwest portion that holds more habitat and older aged animals harvested. Due to the size and amount of prime mountain lion habitat of HA 19, it provides good hunting opportunity as well as older-age class animals for selective hunters.

APPENDIX A: West MLMU - Absaroka DAU

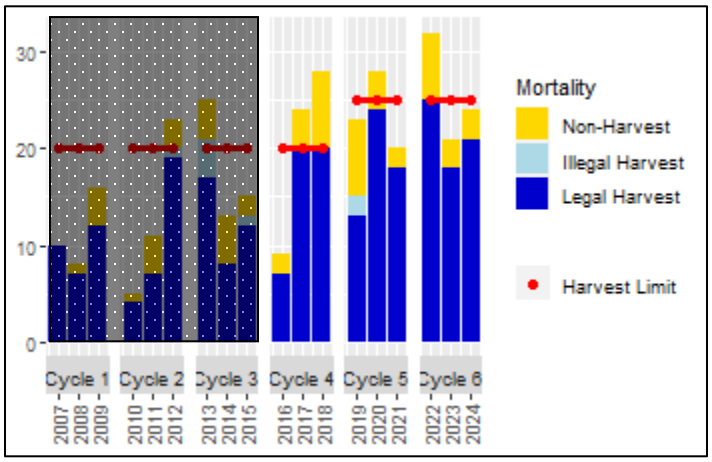
Hunt Area 19.

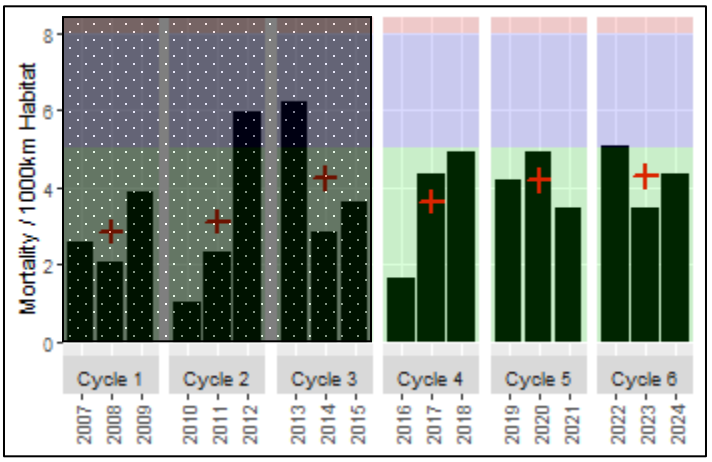
HY2022-HY2024 Regional Objective : Stable/Source management

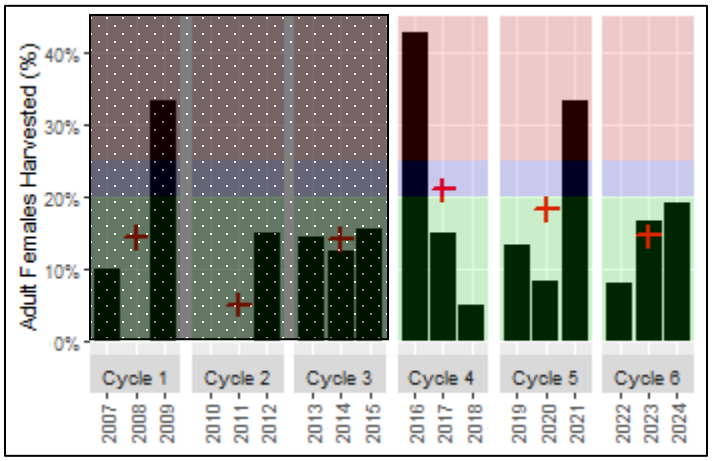
Assessment

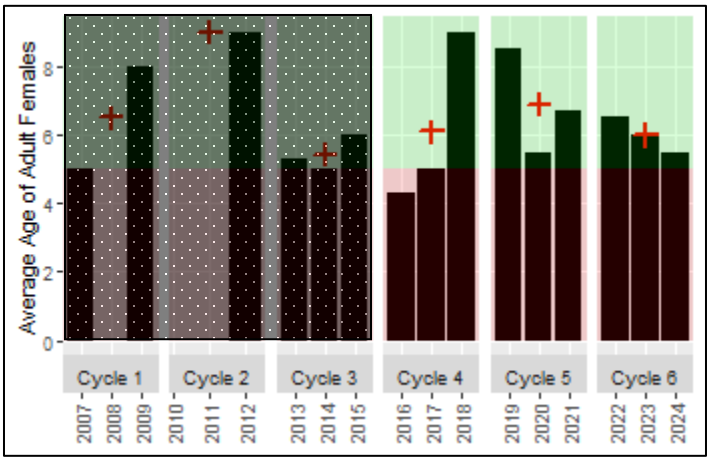
SOURCE: The current management cycle in HA 19 maintained harvest similar to the previous cycle, with only HY2022 reaching the mortality limit. HA 19 holds the largest amount of suitable habitat in the state, and mortality densities continue to indicate source status. Adult female harvest was reduced from the previous cycle, and adult cohorts and overall age has remained high and stable. Selective hunting was over 50% which likely supports older age class animals in the harvest, although slightly more days spent per harvest was reported while the number of tracks observed while hunting was unchanged. Nearly half of harvests are by non-resident hunters, and guided hunts remain near 40%. Harvest is well distributed but driven by accessibility in winter seasons. Less conflicts were reported during the current cycle.

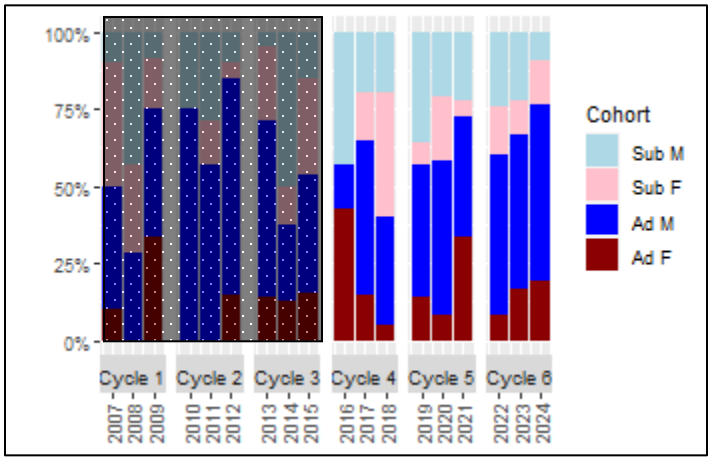
Hunt Area 19.

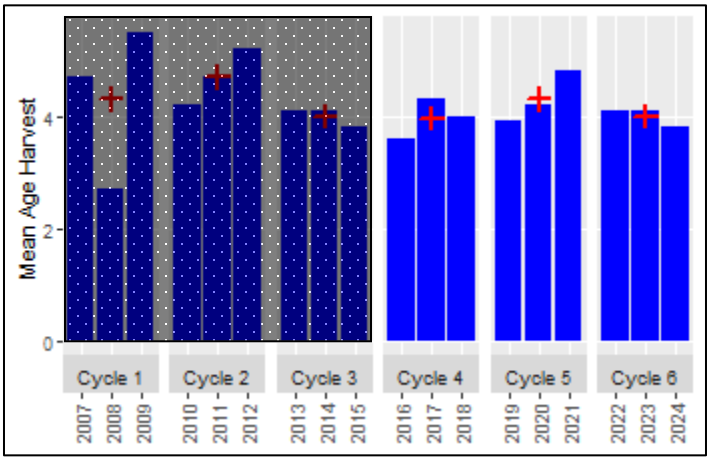

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

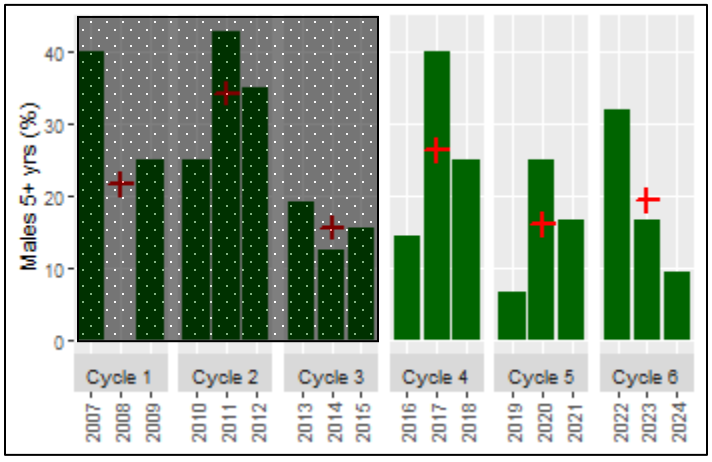

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

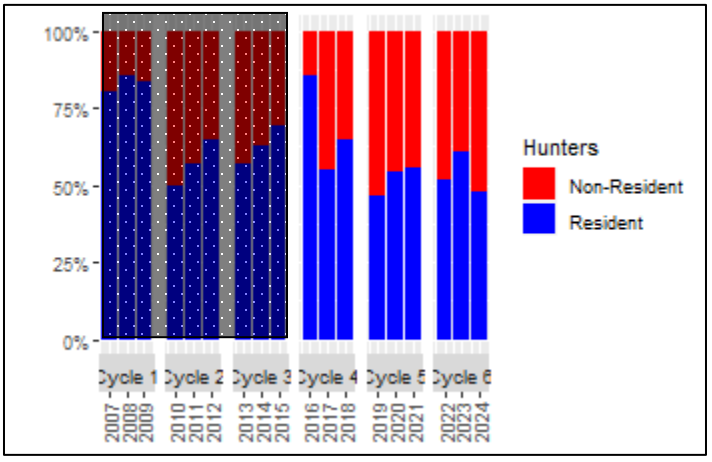

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: West MLMU - Absaroka DAU

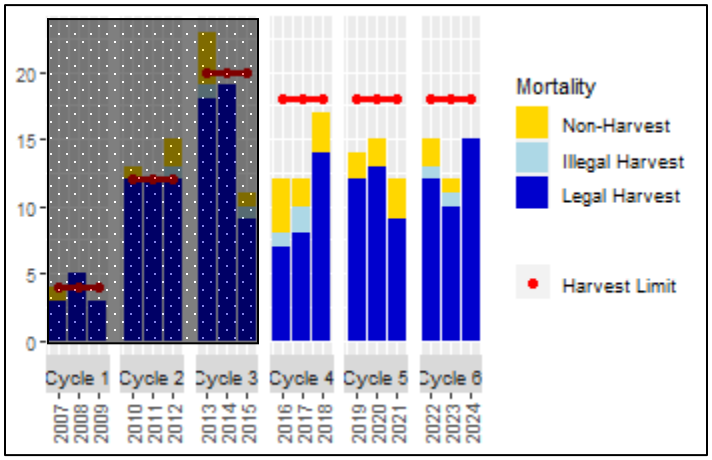
Hunt Area 20.

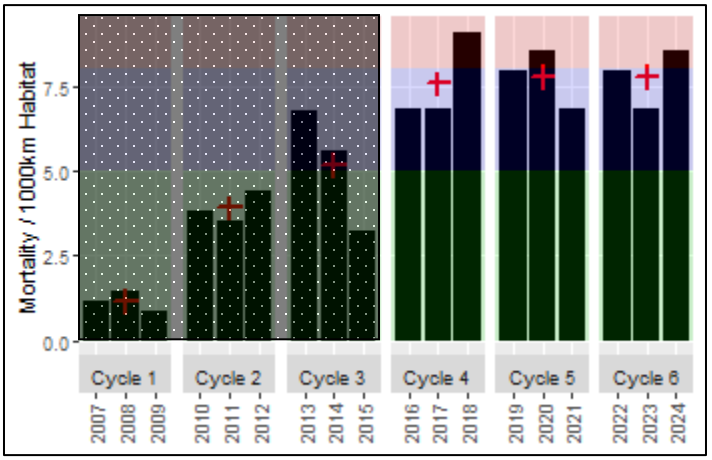
HY2022-HY2024 Regional Objective : Stable/Sink management

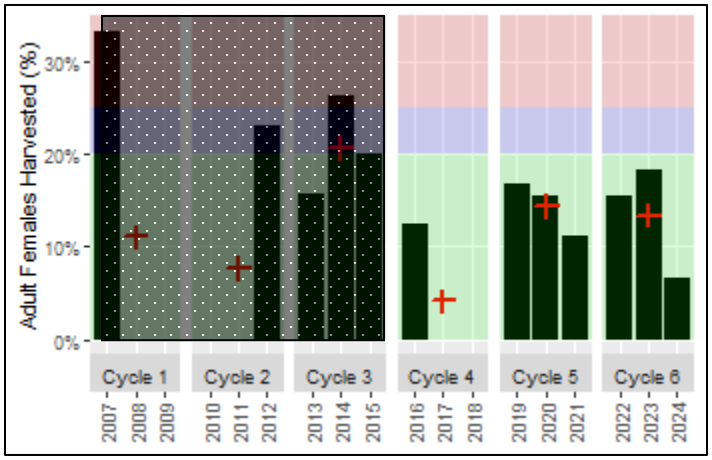
Assessment

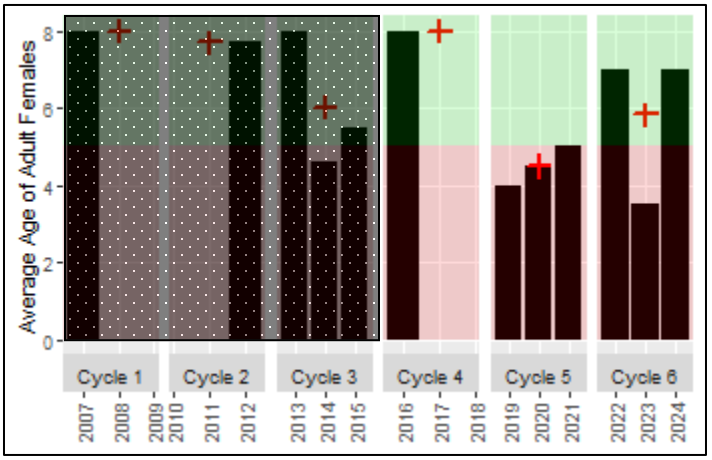
STABLE/SINK: Since 2016, HA 20 encompasses areas to the east of HA 19 with a regional objective for stable/sink management. Mortality limits have not been met, and older aged animals were harvested during this cycle. This hunt area distribution encompasses mountain lion dispersal area across the Bighorn Basin and less core habitat on the eastern front of the Absaroka Range. Mortality densities fluctuated near the transition from stable to sink management. Selectivity of hunters is higher in the southern portion and maintains near 30%, and more resident than non-resident hunters occur, with guided hunts variable from 10-40% annually. Hunter effort per harvest has remained stable while the number of observed tracks decreased during the HY2022-2024 cycle. HA 20 functions mostly as a sink where harvest occurs along corridors across the basin, with the exception of the southern portion that holds suitable habitat and supports harvest with older aged males harvested during the cycle. Reported conflicts dropped by approximately 70% with six depredation events reported in the cycle.

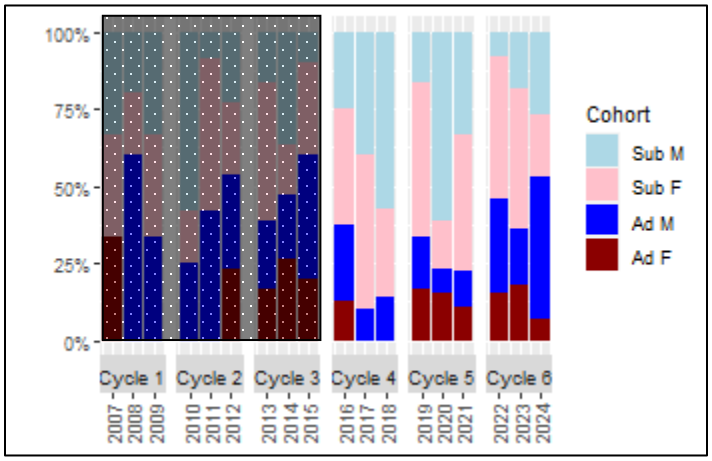
Hunt Area 20.

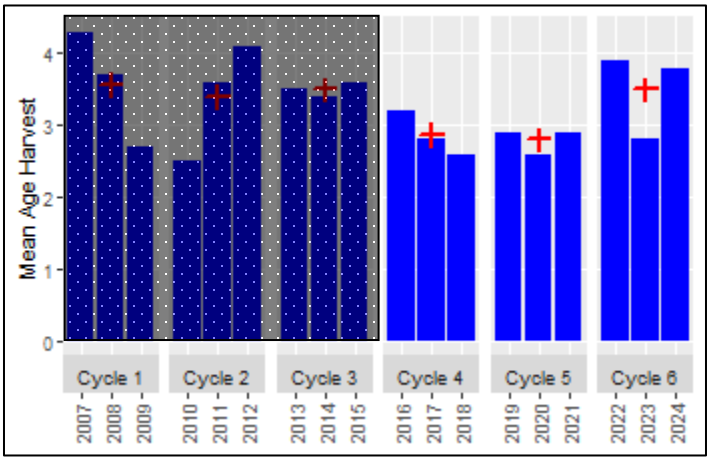

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

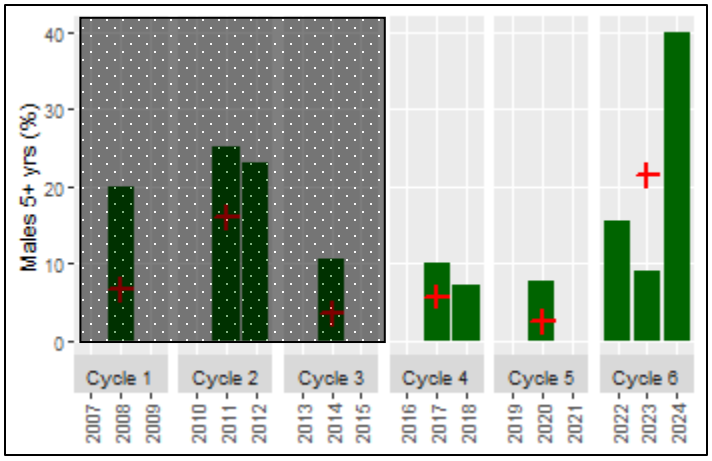

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

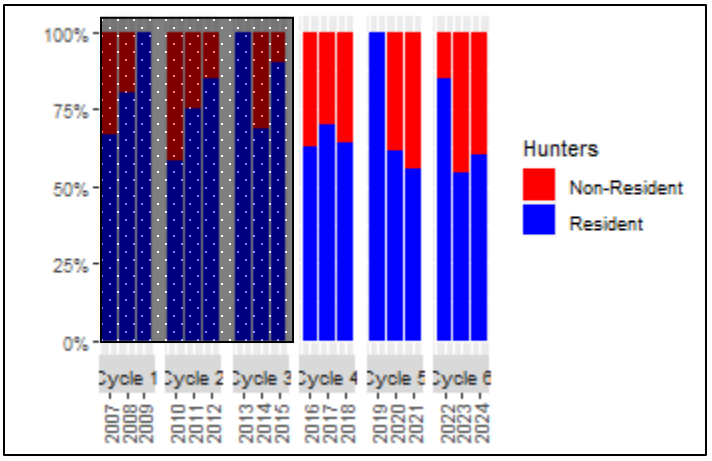

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

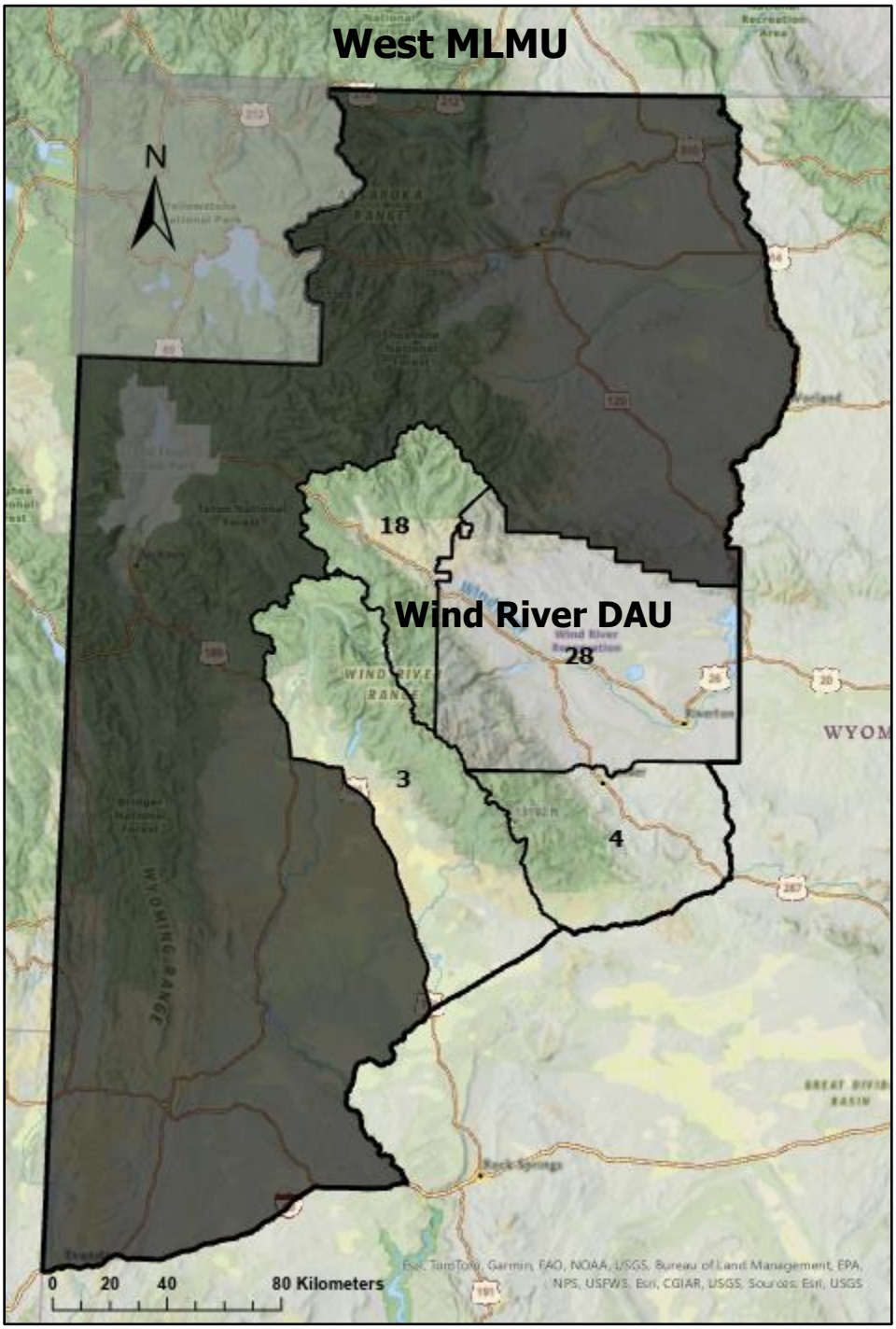

Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident

WIND RIVER DAU



Overview

The Wind River DAU includes four hunt areas encompassing the Wind River Range of the West MLMU. Harvest within hunt areas along the Wind River Mountains includes strong age structure and minimal adult females taken, likely driven by restricted access in some areas by winter closures or tribal lands coupled with high selectivity toward older aged animals. Data indicate all areas within this DAU likely function toward source status. Four reported conflicts across these hunt areas in the cycle represent a 60% reduction.

APPENDIX A: West MLMU - Wind River DAU

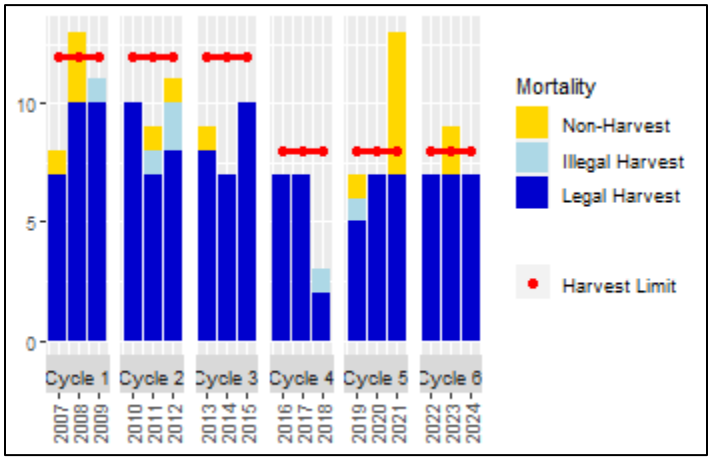
Hunt Area 3.

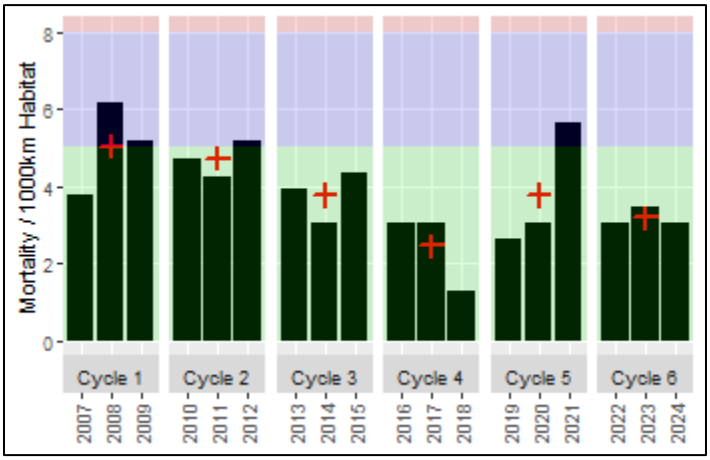
HY2022-HY2024 Regional Objective : Stable/Source management

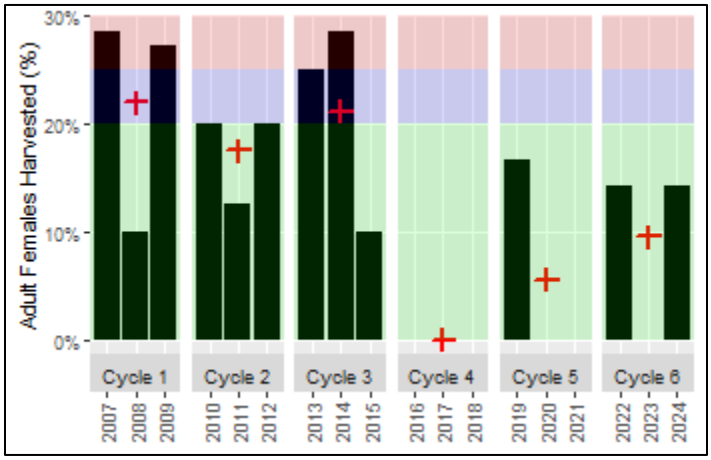
Assessment

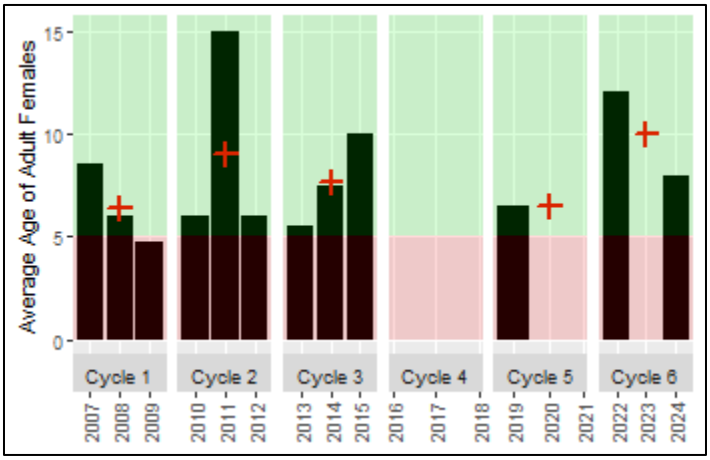
SOURCE: HA 3 may naturally sustain lower mountain lion densities than other areas of the state. Harvest levels aligned with previous years, and mortality limits have yet to be reached in this area. Recently, mortality densities reflect source status, as does the proportion of adult females harvested and age structure in HA 3. All metrics indicate source status for this area. The majority of harvest in this area is from non-resident hunters on mostly guided hunts, with nearly half reporting being selective in their harvest. Therefore, the average days spent per harvest was near six days of effort, and slightly less tracks were observed by successful hunters. One conflict was reported during the cycle.

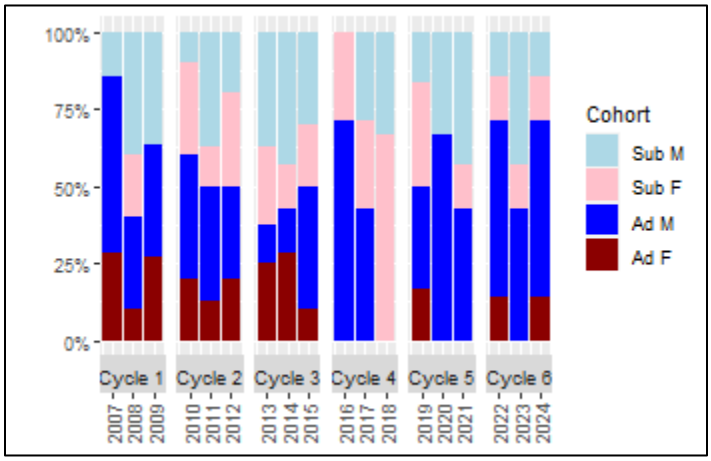
Hunt Area 3.

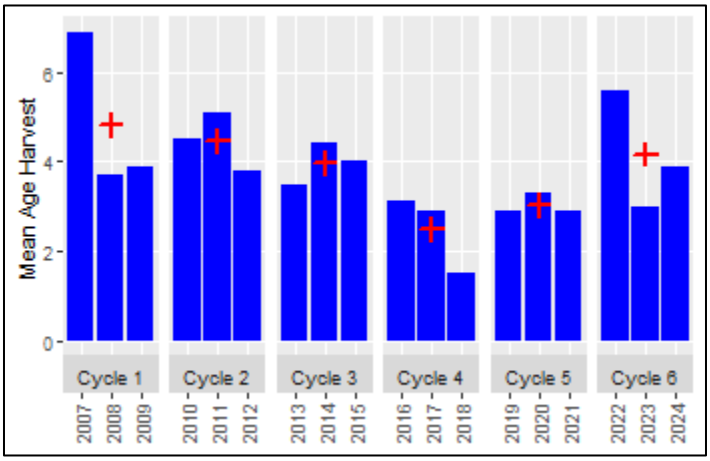

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

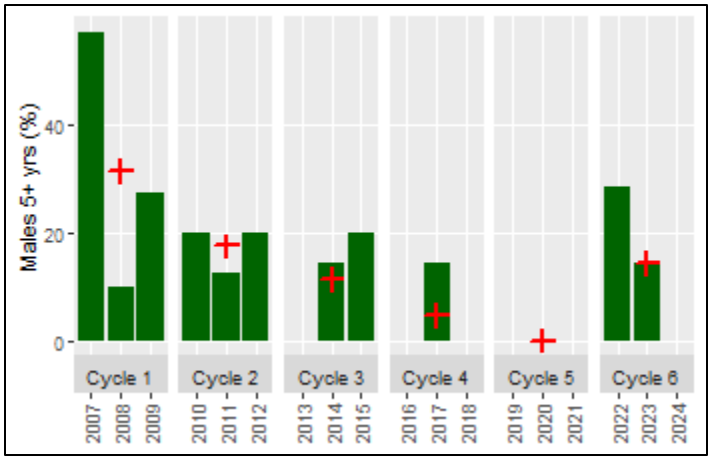

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

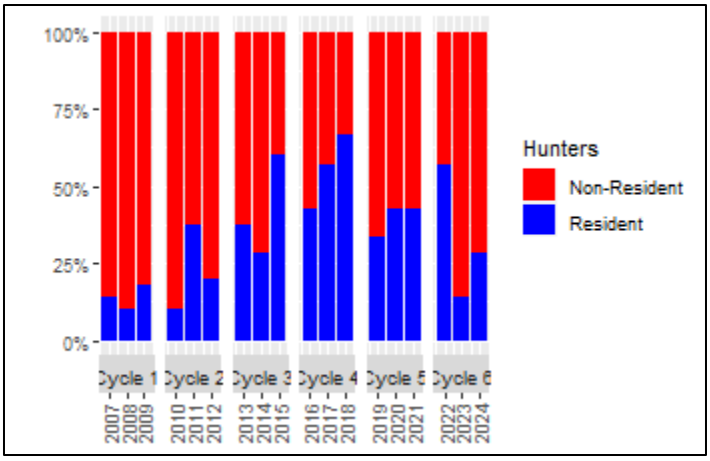

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: West MLMU - Wind River DAU

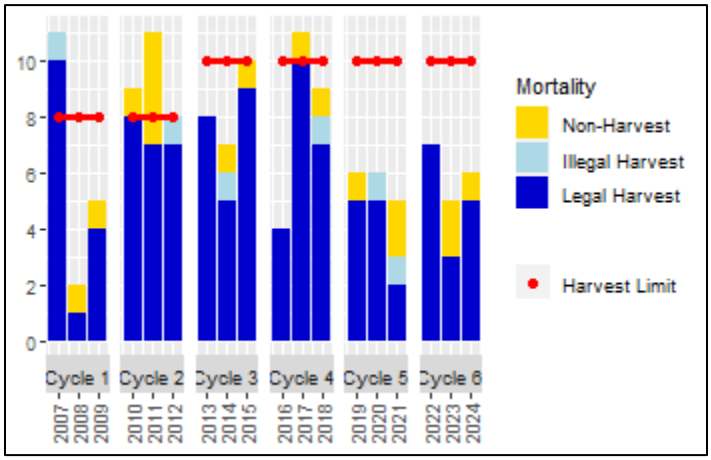
Hunt Area 4.

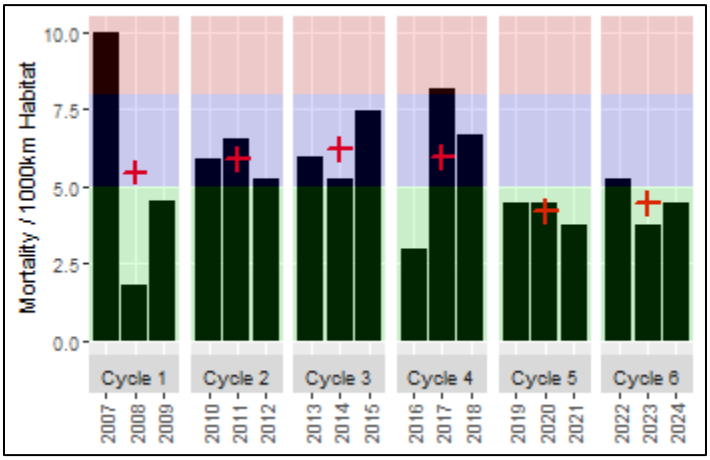
HY2012-HY2024 Regional Objective : Stable management

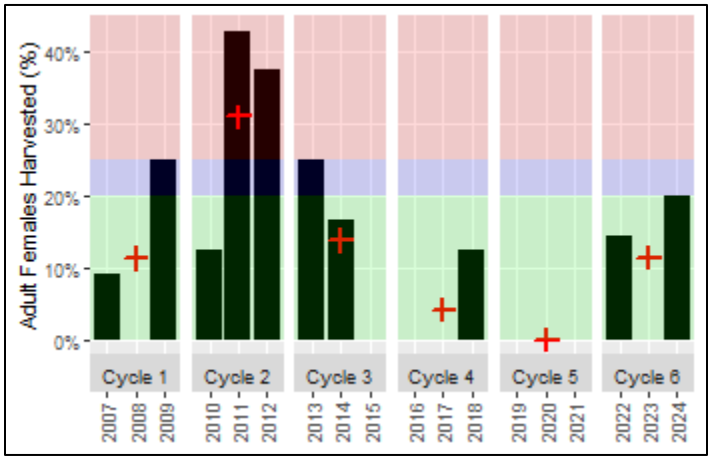
Assessment

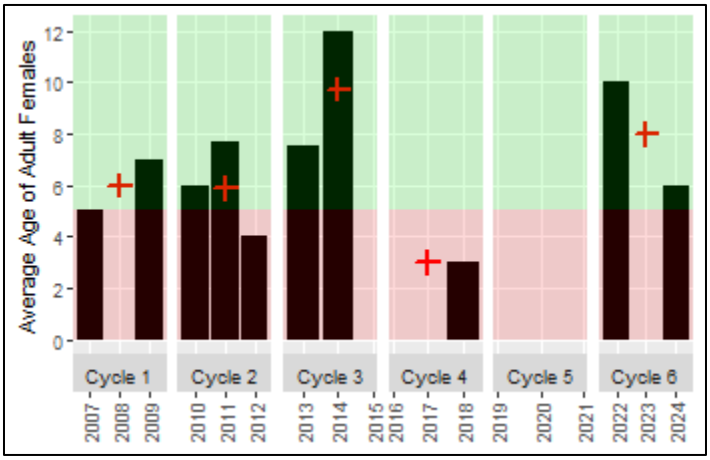
STABLE/SOURCE: HA 4 continues to show lower harvest indicating source level mortality densities. Combined with low levels of adult females in the harvest and older aged adult females when these harvests do occur, this area represents source status. Selectivity increased along with older aged animals in the harvest, although few older aged males were taken during the cycle. Approximately 50% of hunts are guided in the area to non-resident hunters. One conflict was reported from a depredation in HY2022.

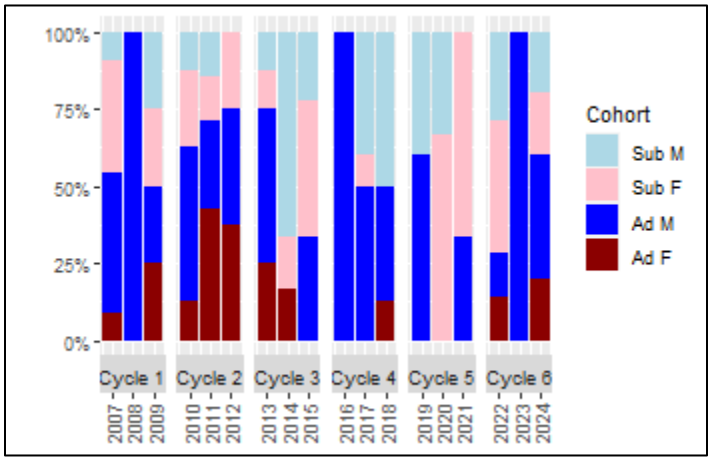
Hunt Area 4.

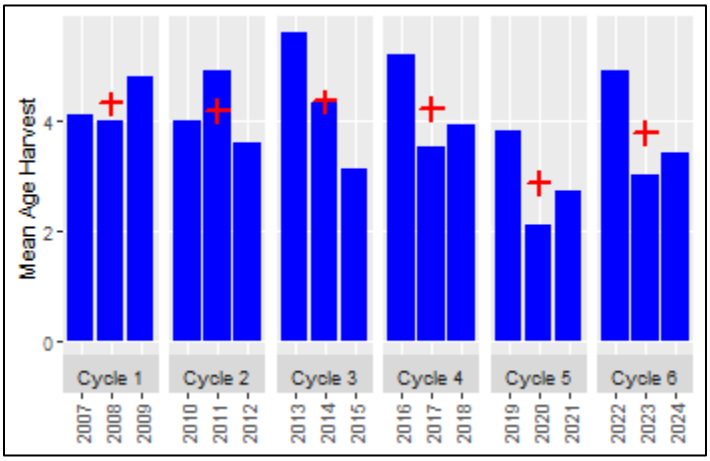

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

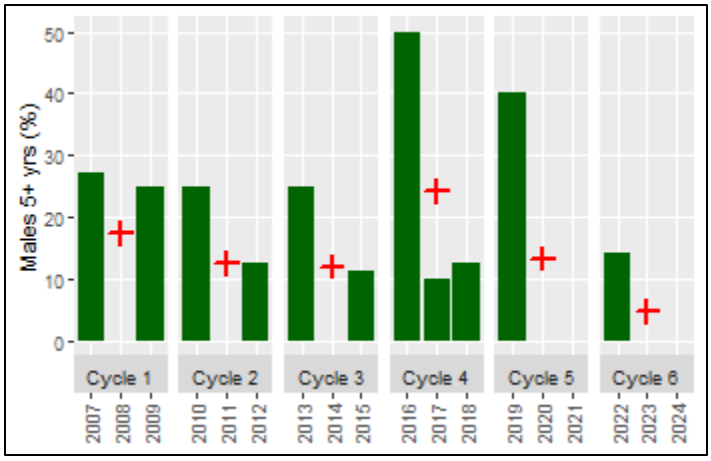

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

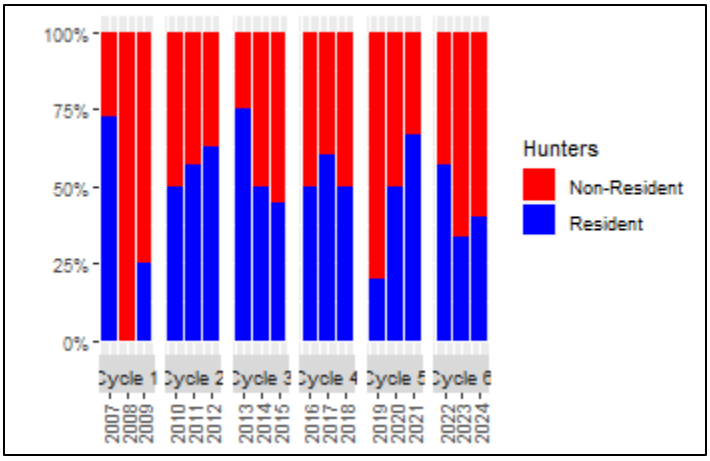

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: West MLMU - Wind River DAU

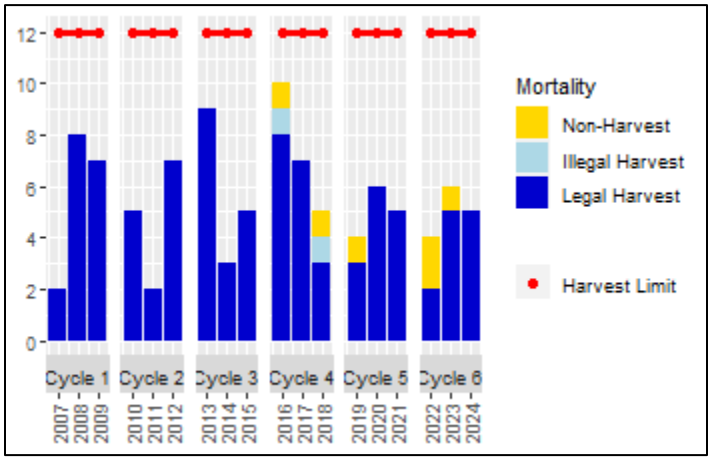
Hunt Area 18.

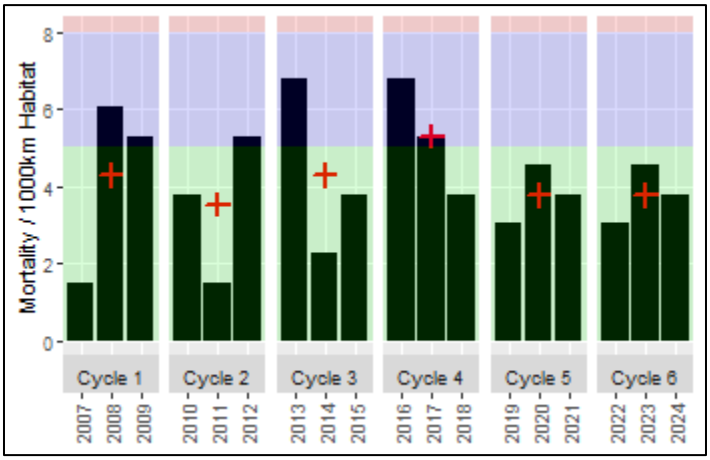
HY2022-HY2024 Regional Objective : Stable management

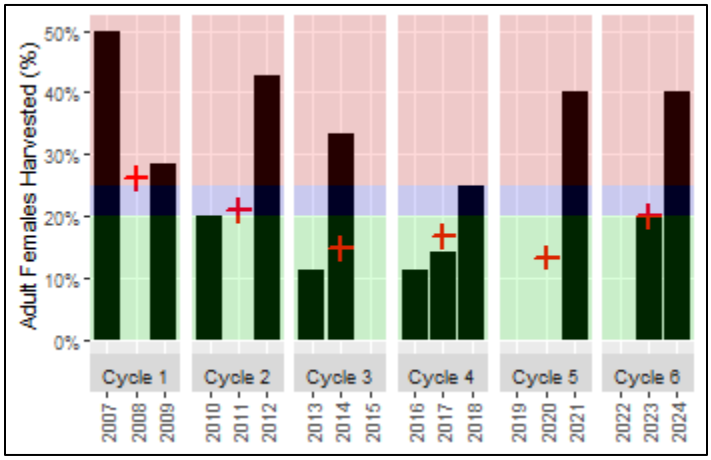
Assessment

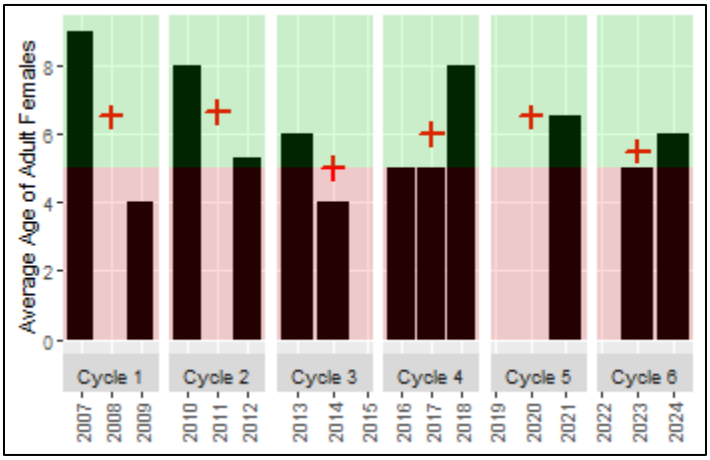
SOURCE: HA 18 maintained source function during the 6th management cycle. Mortality has not approached the limit in recent time, and current cycle harvest fell well within source level mortality densities. Mostly adult cohorts were harvested, with few adult females harvested indicating good potential for reproduction and dispersal. Overall age >4 indicates quality opportunity for available mature male mountain lions. Oriented at the head of the Wind River Basin, HA 18 is surrounded by many source and stable/source functioning areas, and big game winter closures also lend to the current status of the area. Selectivity remains strong, and although most harvest was from resident hunters, the proportion of guided hunts were near 75%. No conflicts were reported.

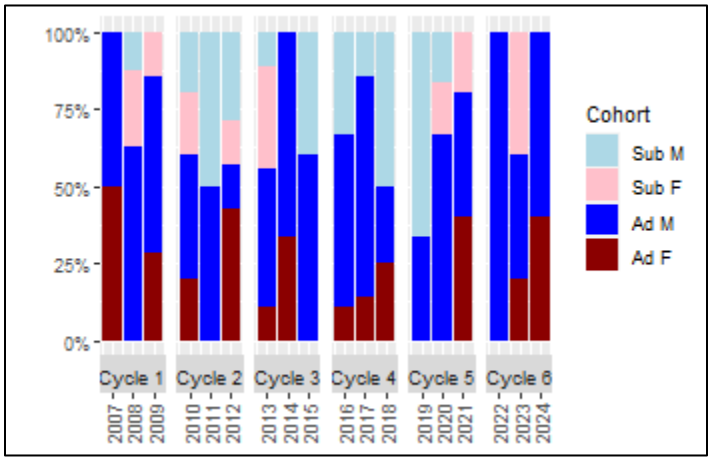
Hunt Area 18.

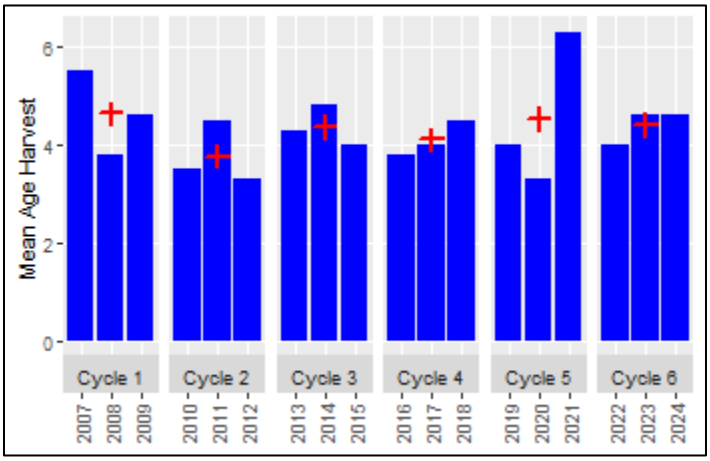

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

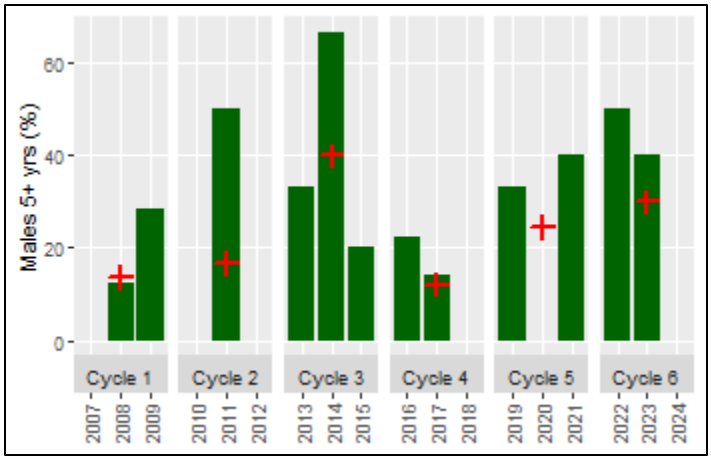

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

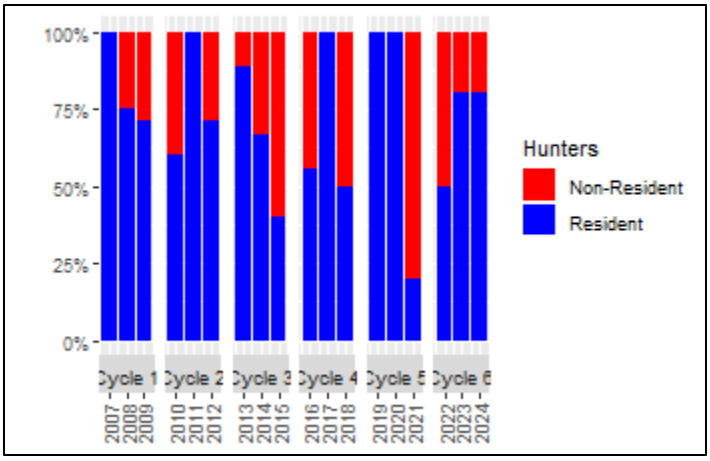

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: West MLMU - Wind River DAU

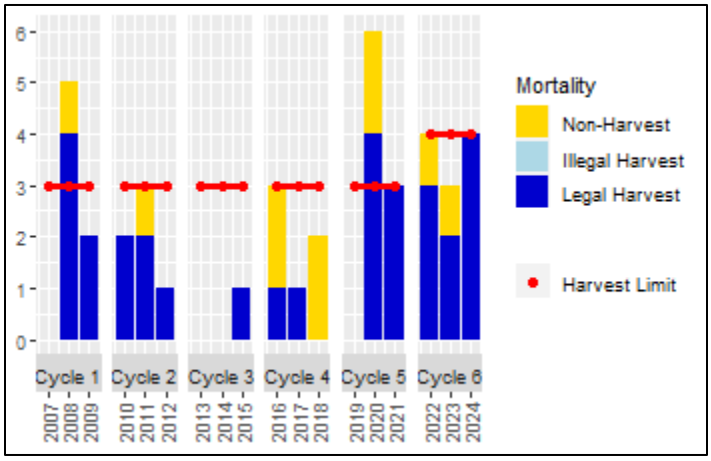
Hunt Area 28.

HY2022-HY2024 Regional Objective : Source management

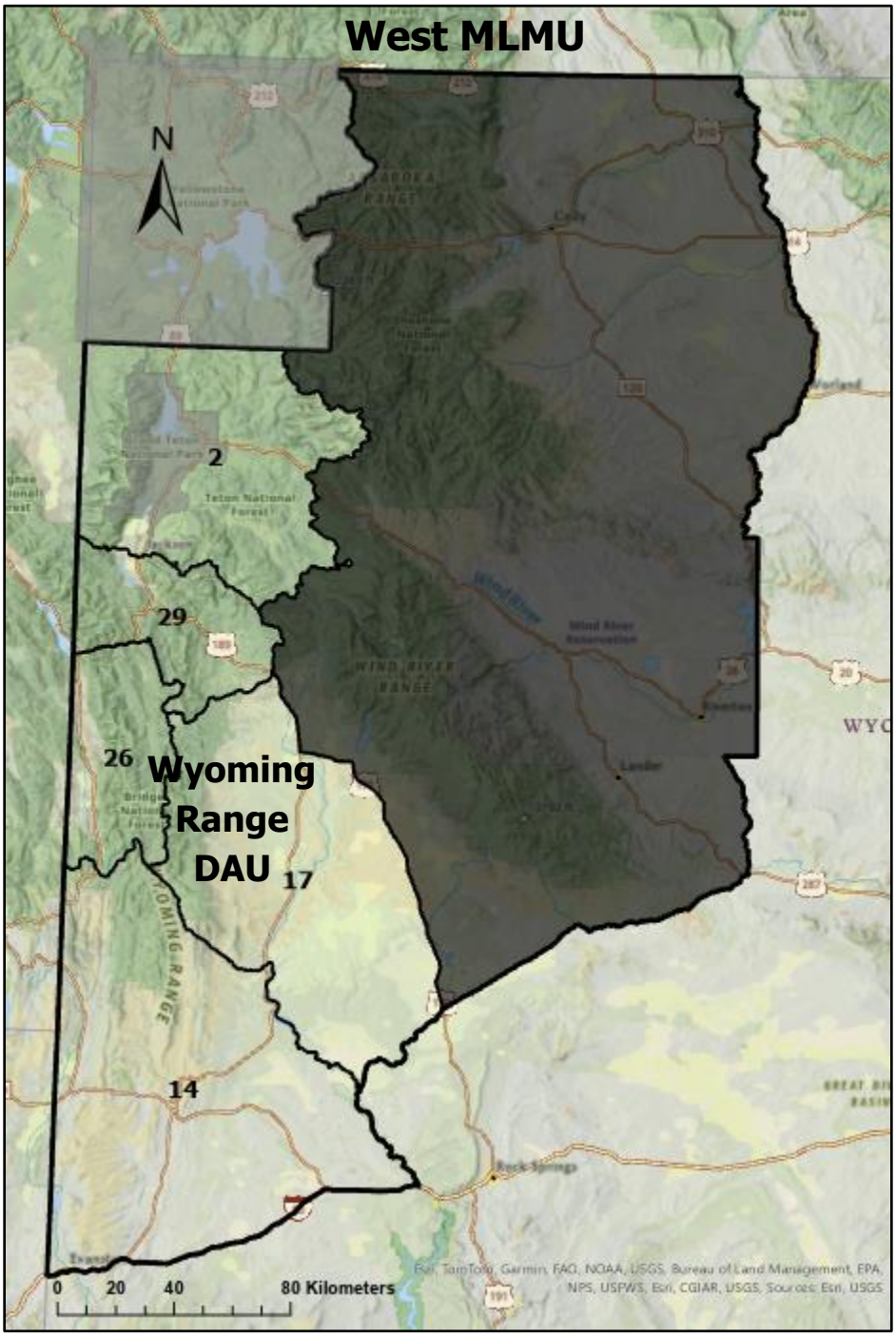
Assessment

SOURCE: HA 28 is mostly tribal Wind River Reservation land as well as a small amount of private in-holdings (where Department regulations apply). Mortalities include shared reporting from the Shoshone and Arapahoe Tribal Fish and Game. Mortality slightly increased during the current cycle, but habitat assessment shows this area as a functioning source population. Few reported harvests limit effective age/sex/cohort assessments. A few non-resident hunters began to take mountain lions in this area through guided hunts during this cycle which had not occurred previously. Two conflicts were reported during the cycle.

Hunt Area 28.



WYOMING RANGE DAU



Overview

Overall harvest in the Wyoming Range DAU increased during the current cycle and coincided with increased allowable mortality. The winter of 2022-2023 negatively impacted ungulate populations, and as a result, harvest limits were temporarily increased by 50% for the hunt areas that comprise the Wyoming Range (HAs 14, 17, 26 and 29). Low harvest rates continue to persist in HA 2, while HAs 14, 17, 26, and 29 realized increased harvest. The western and southern portion of the Wyoming Range indicate hunting pressure reduced the local population and moved those areas toward sink management, while stability is estimated for the eastern and northern portions of the DAU.

APPENDIX A: West MLMU - Wyoming Range DAU

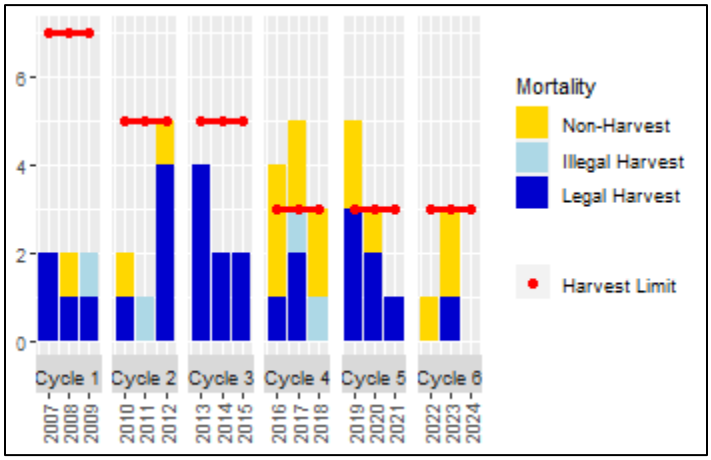
Hunt Area 2.

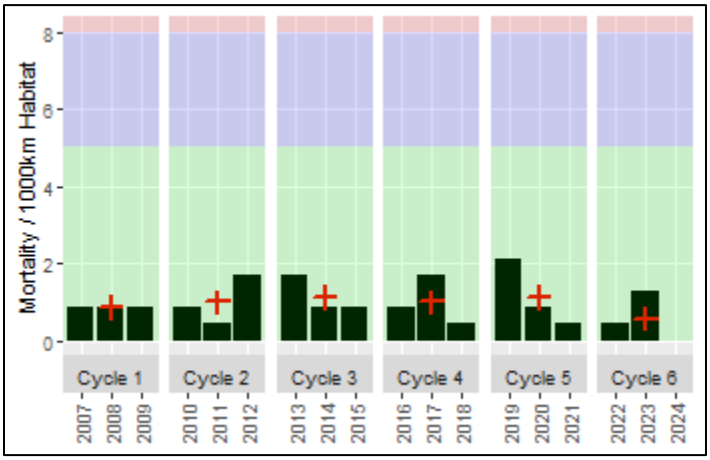
HY2022-HY2024 Regional Objective : Source management

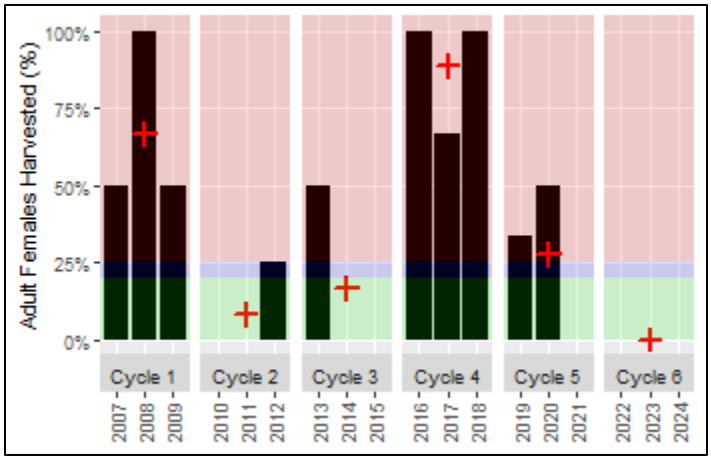
Assessment

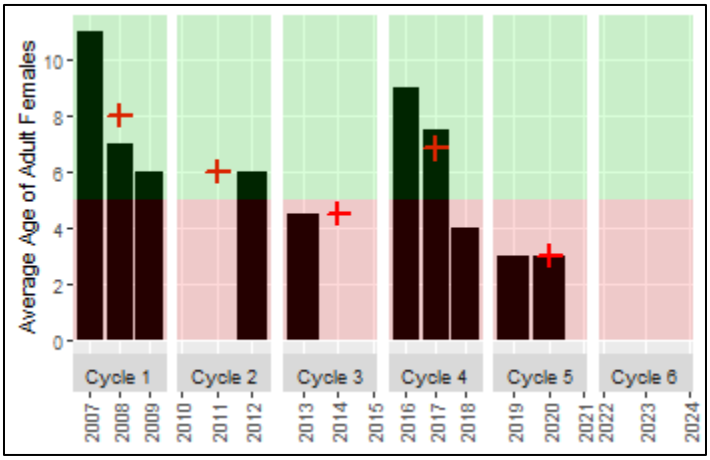
STABLE/SOURCE: HA 2 continues to demonstrate the lowest mortality densities in the state. Although harvest is low, mountain lion densities in certain portions of Hunt Area 2 are lower based on research conducted in the Jackson Region, and allowable mortality aligns with predicted densities and public input. Only one sub-adult male harvest was reported this cycle along with three non-harvest mortalities. These metrics indicate only occasional and opportunistic harvest occurred in the area. Limited harvest prevents refined assessment of population function for HA 2, with uncertainty whether the area functionally serves as a source for surrounding areas. Reported conflicts are low. Human caused mortality is not a limiting factor for mountain lions in this area.

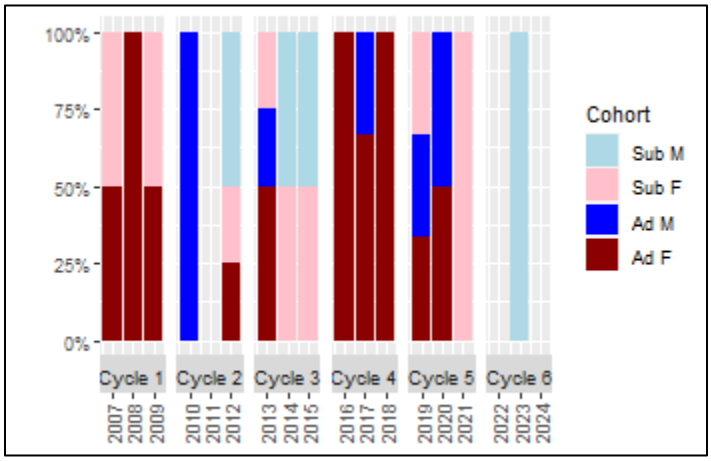
Hunt Area 2.

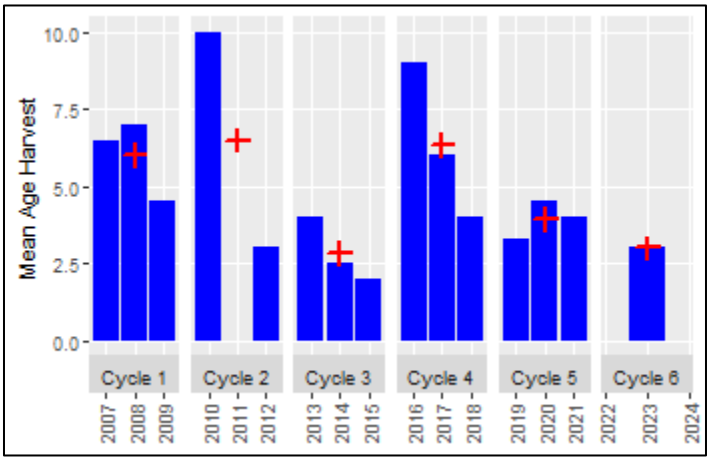

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

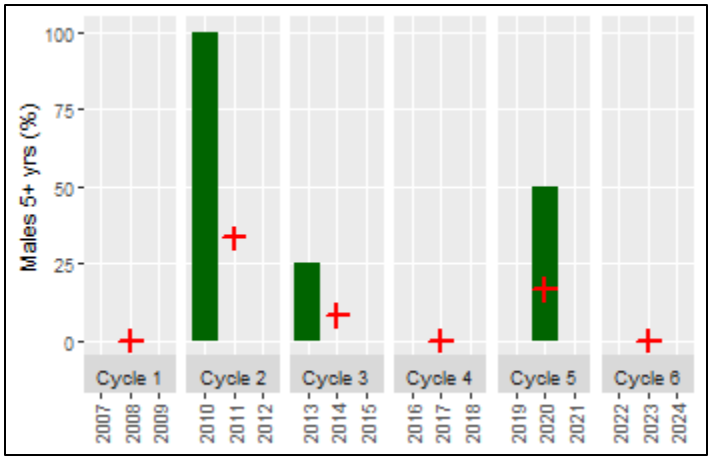

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

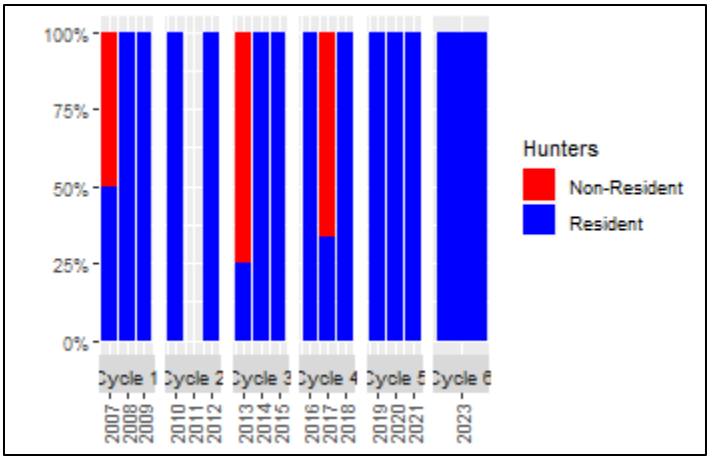

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: West MLMU - Wyoming Range DAU

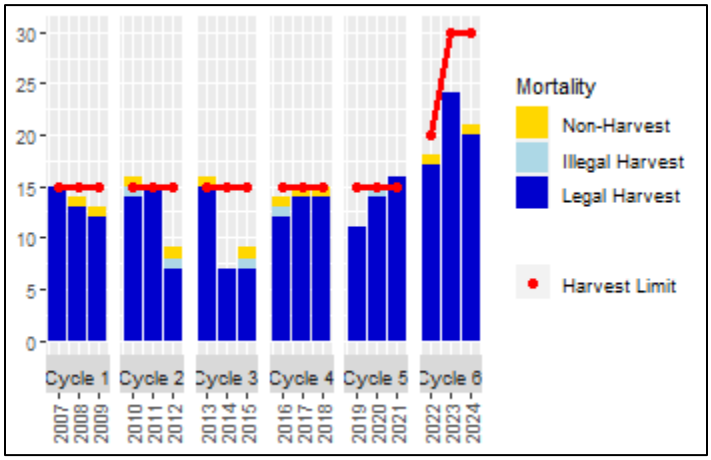
Hunt Area 14.

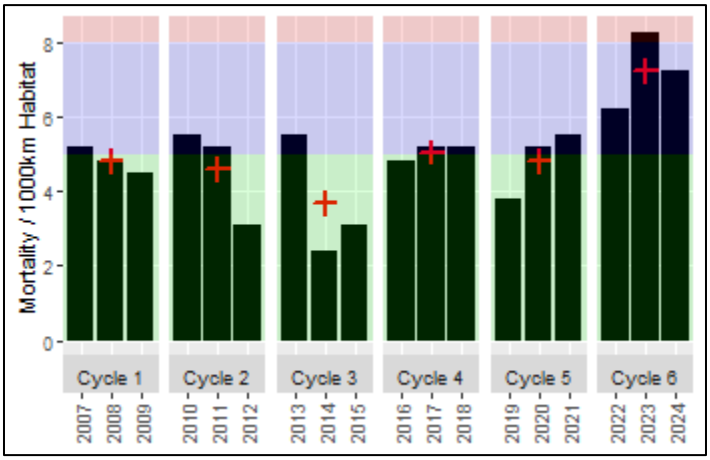
HY2022-HY2024 Regional Objective : Stable management

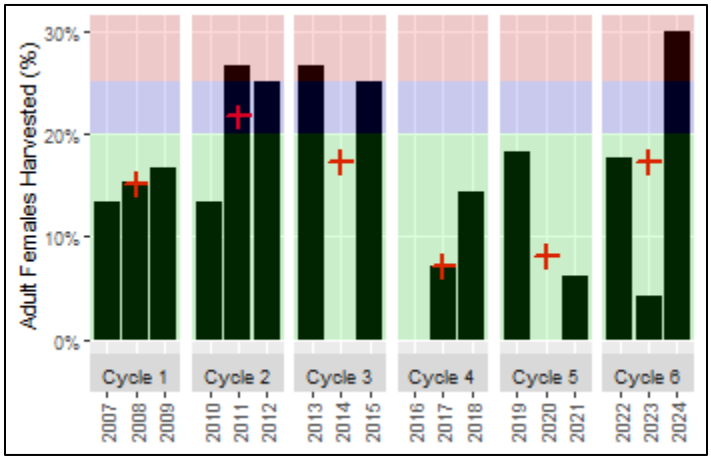
Assessment

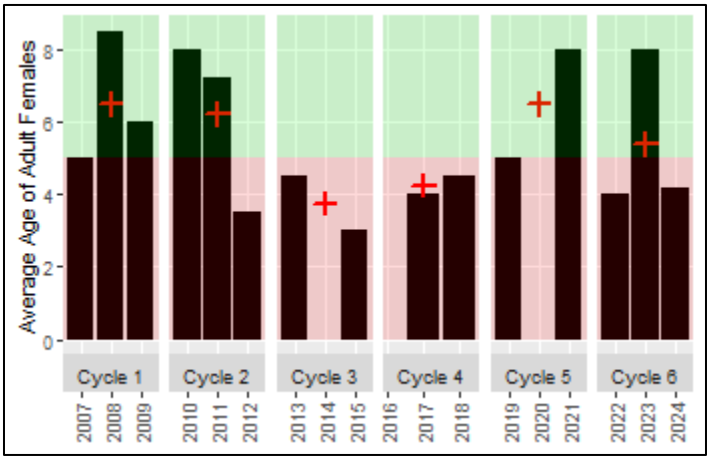
STABLE/SINK: Mortality limits in HA 14 were increased to 20 allowable harvests in HY2022. After HY2022, an additional 50% allowable harvest was implemented by the Commission. Mortality during the cycle increased by 33%. The majority of harvest from HA 14 is comprised of sub-adult animals, and overall average age of harvested lions has steadily declined to near three years of age. HY2024 saw an increase in the proportion of reproductive females harvested at 30%. About half of harvest is from non-resident hunters through guide services, selectivity decreased by 20%, and the number of tracks identified by hunters declined. This area has some potential for population stability but has been reduced due to increasing hunting pressure and resultant alterations in age structure toward younger aged animals. One conflict was reported in HY2024.

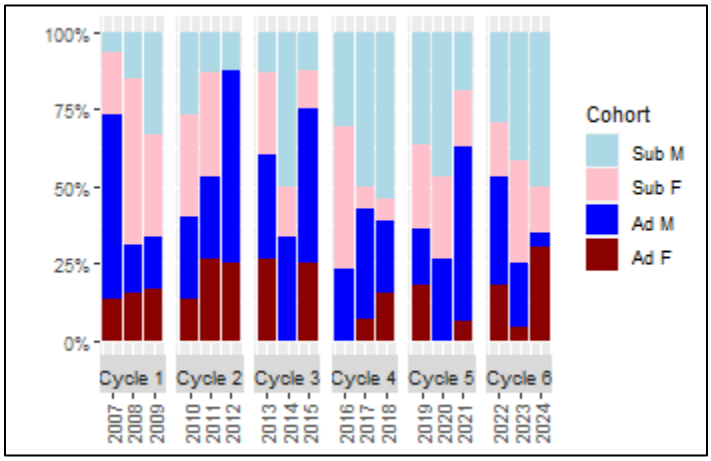
Hunt Area 14.

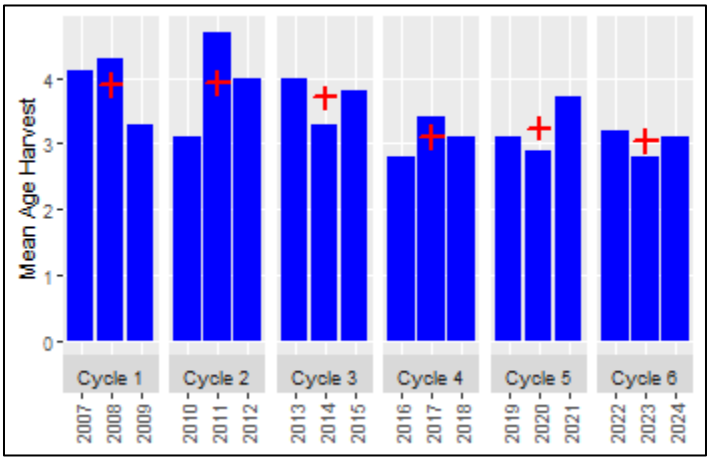

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

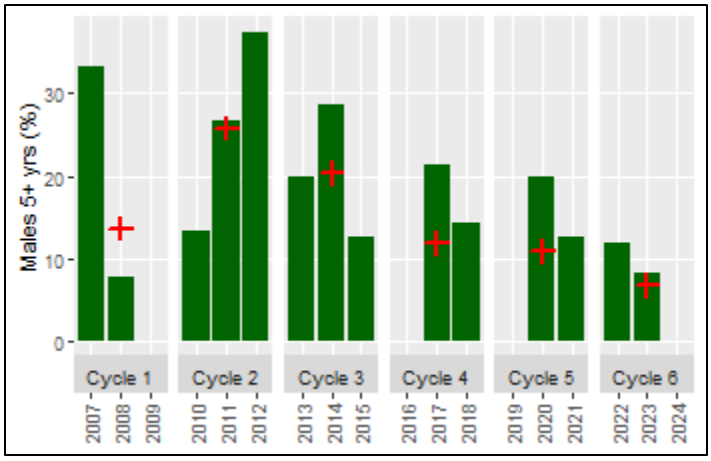

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

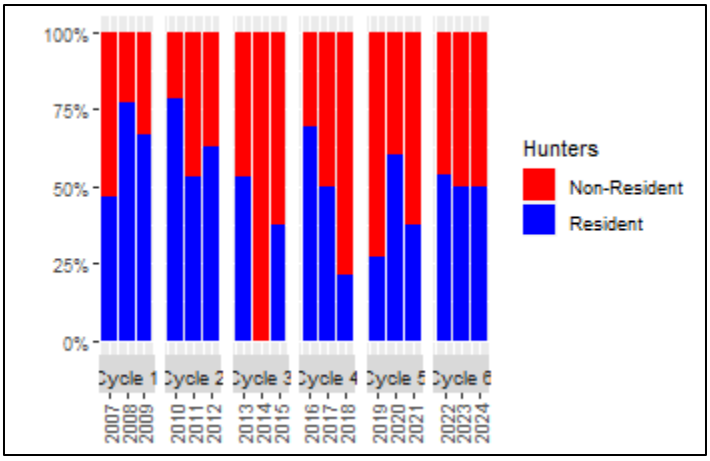

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: West MLMU - Wyoming Range DAU

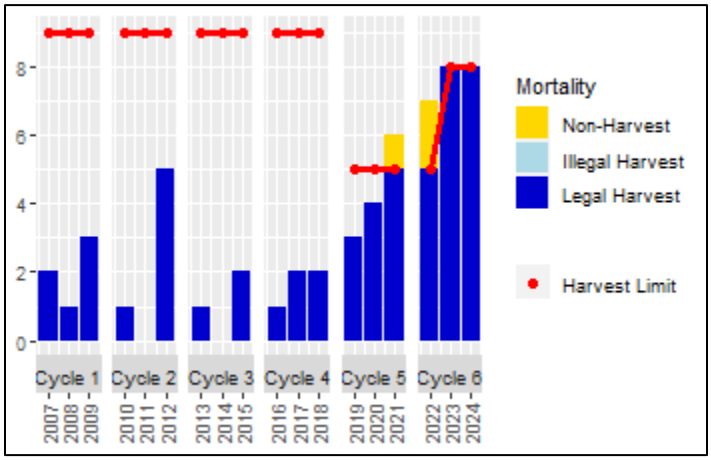
Hunt Area 17.

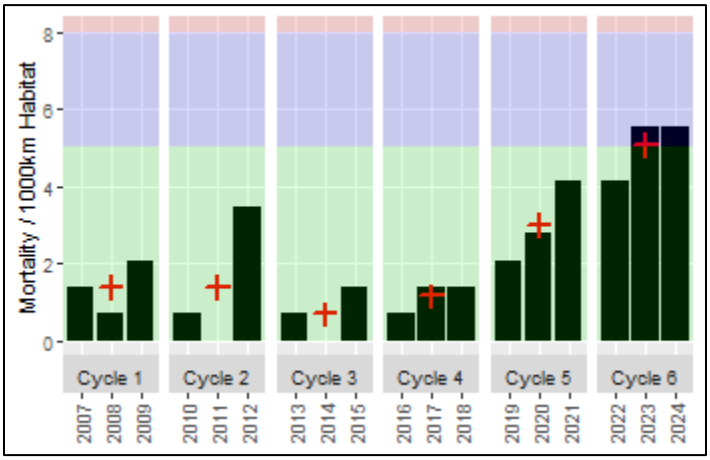
HY2022-HY2024 Regional Objective : Stable/Source management

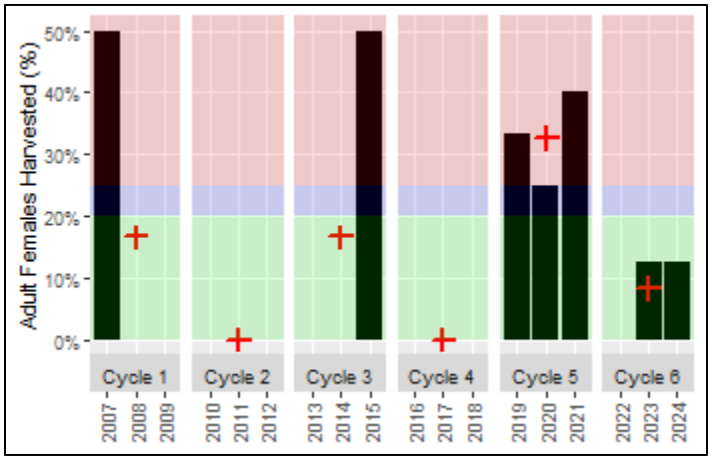
Assessment

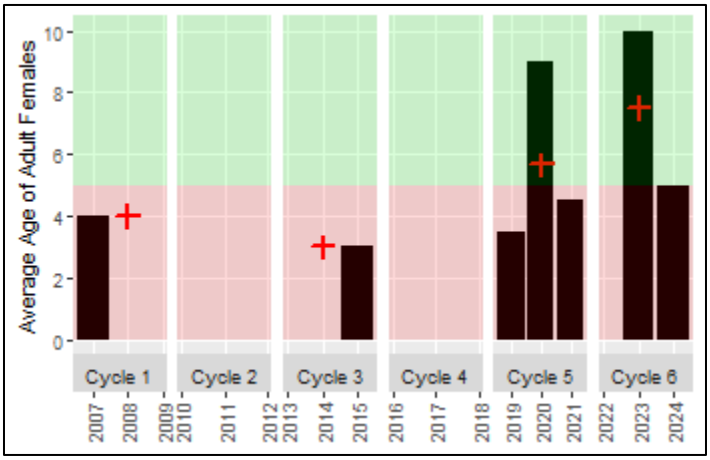
STABLE/SOURCE: HA 17 reported higher harvest than in previous cycles with the 50% increase in allowable mortality implemented in HY2023, and has met allowable mortality since HY2021. Estimated habitat still resulted in low mortality densities for the area, but may be overestimated. Limited sample precludes precise projections on population trends, but HA 17 likely provides functions as a stable/source area, albeit at lower densities. The temporary increase in limits resulted in more mountain lion mortality following the winter of 2022-2023. No conflicts were reported.

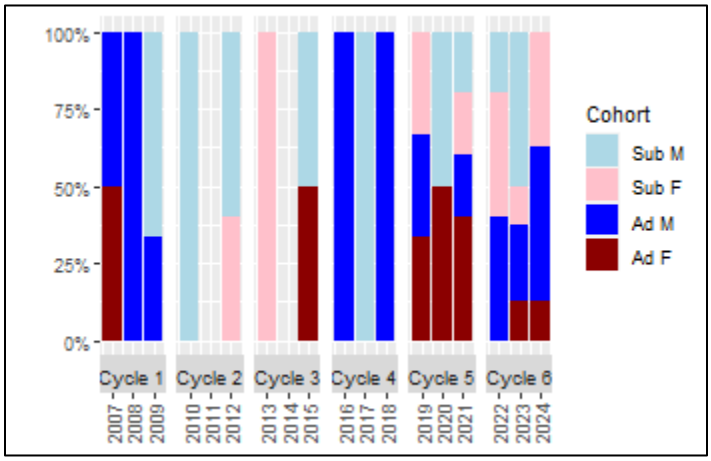
Hunt Area 17.

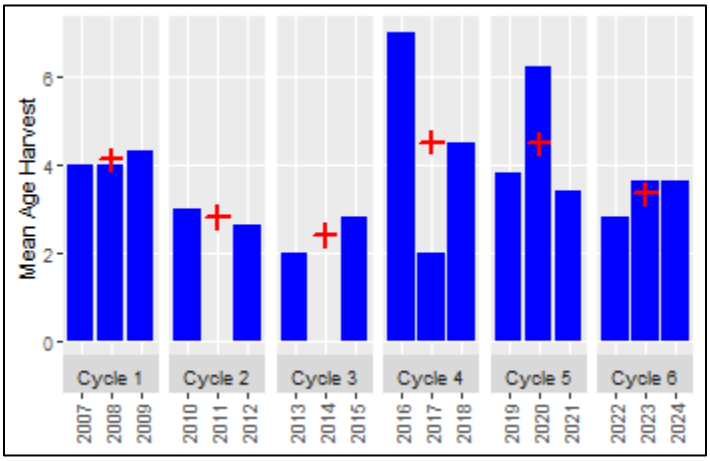

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

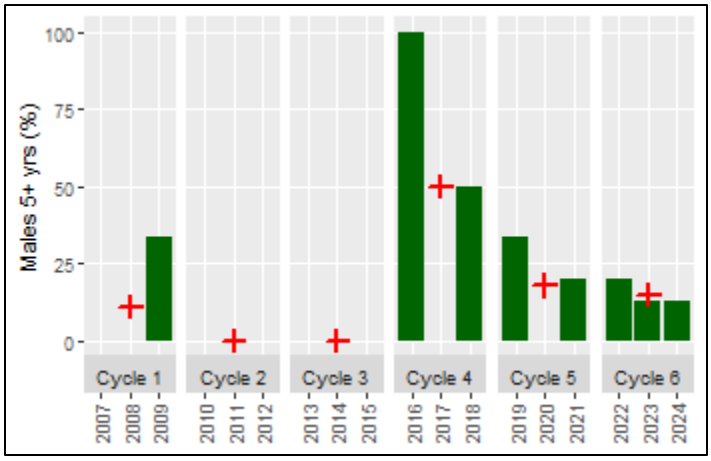

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

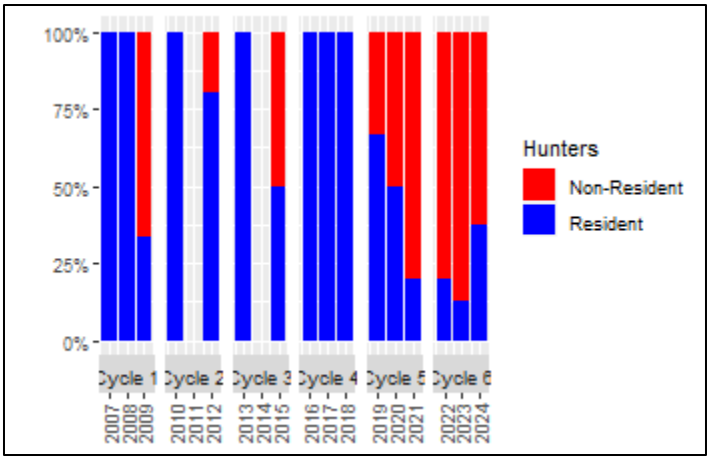

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident

APPENDIX A: West MLMU - Wyoming Range DAU

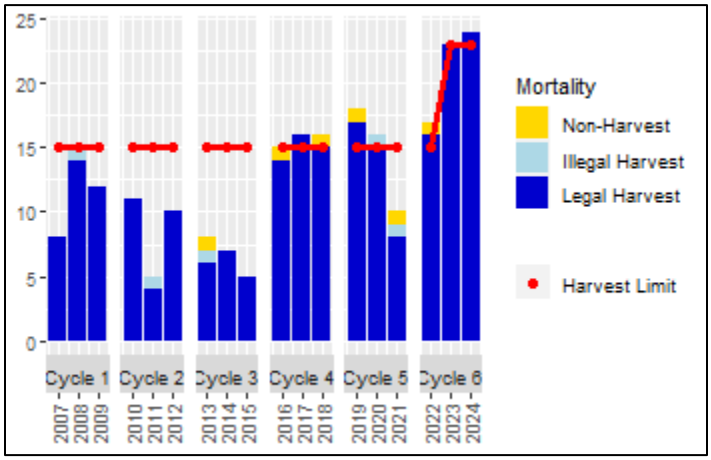
Hunt Area 26.

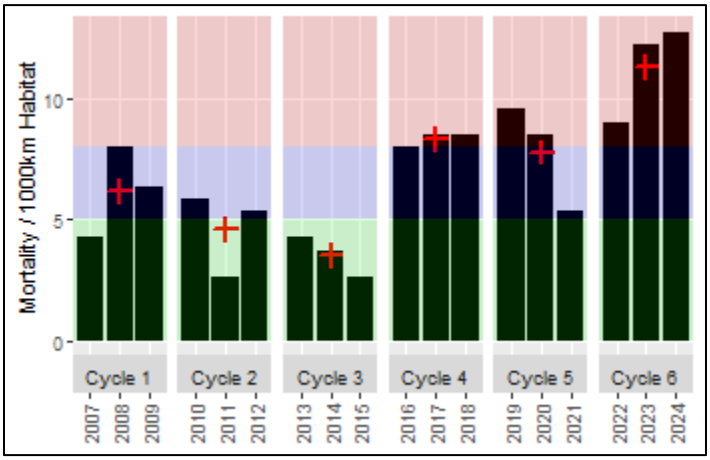
HY2022-HY2024 Regional Objective : Stable/Sink management

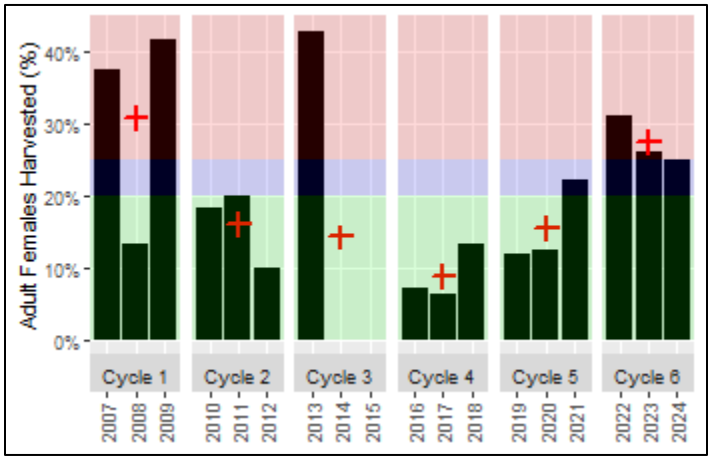
Assessment

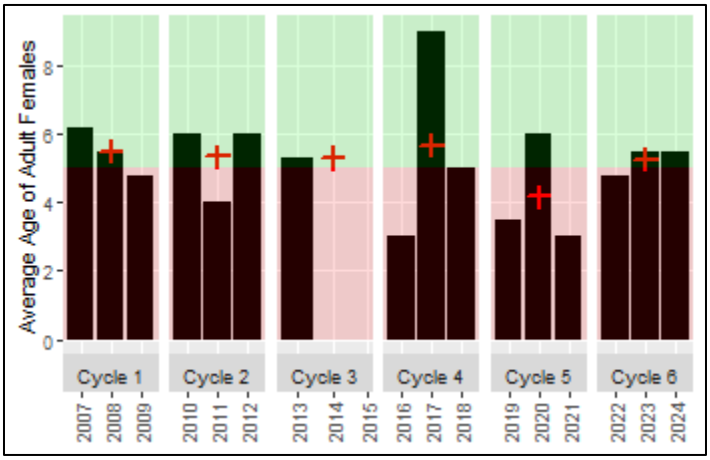
SINK: HA 26 incurred sink level mortality densities during the cycle, and met mortality limits with the 50% increase implemented for HY2023-HY2024. In addition, all three years of the cycle reported adult female harvest at or above the 25% threshold for sink status, and increasing the overall average age of harvested mountain lions. Relatively few adult males were found in the harvest, where sub-adult mountain lions are common. Selectivity dropped from over 60% to near 25%. Data indicates this area is experiencing hunting pressure indicative of sink status. As in the previous cycle, only one conflict was reported.

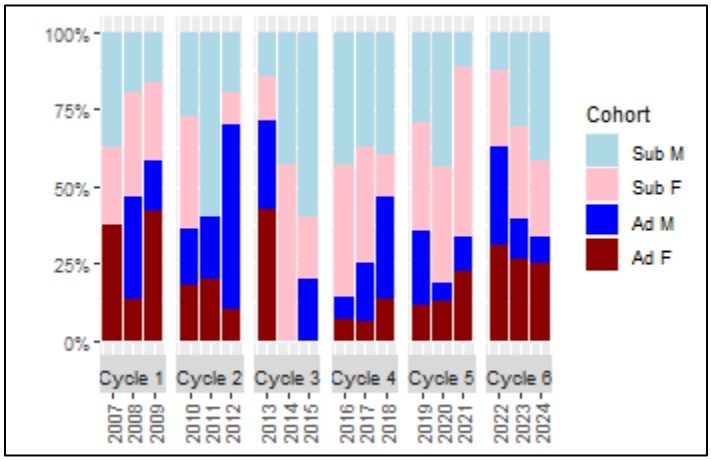
Hunt Area 26.

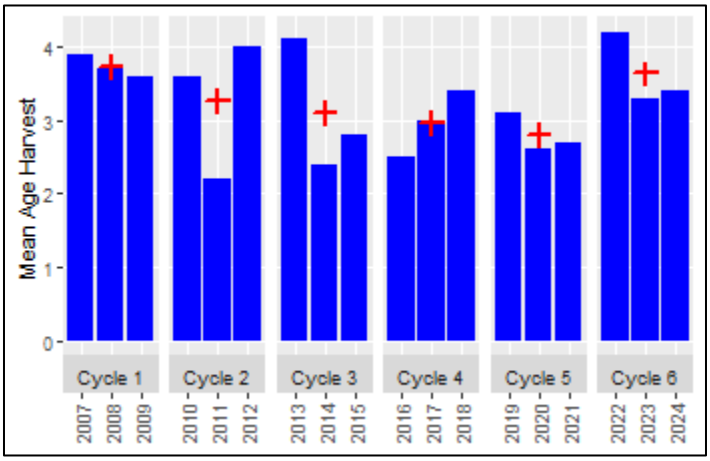

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

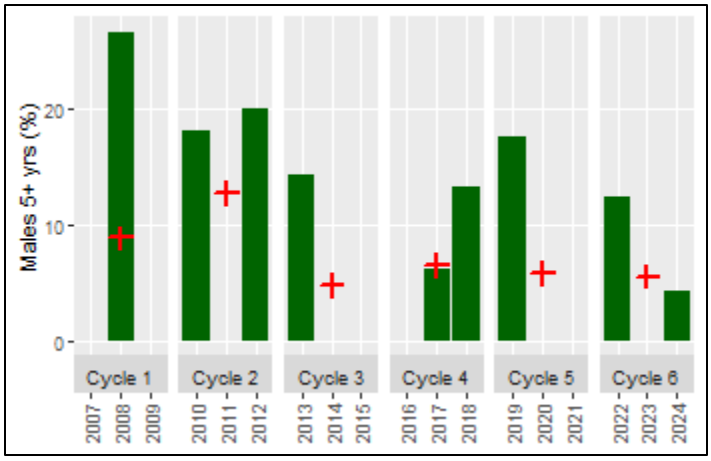

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

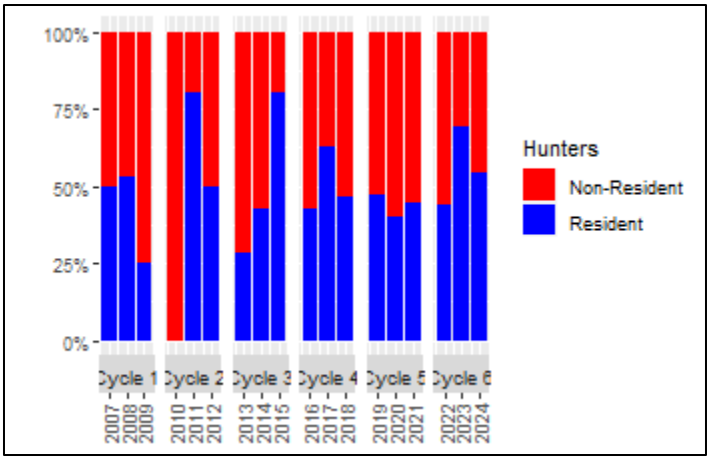

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX A: West MLMU - Wyoming Range DAU

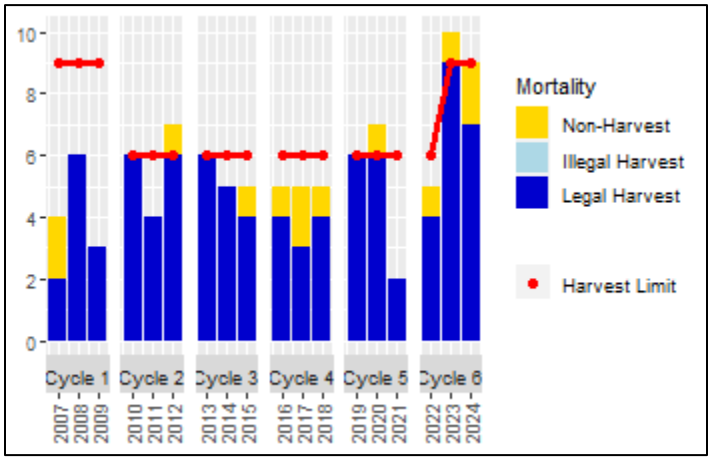
Hunt Area 29.

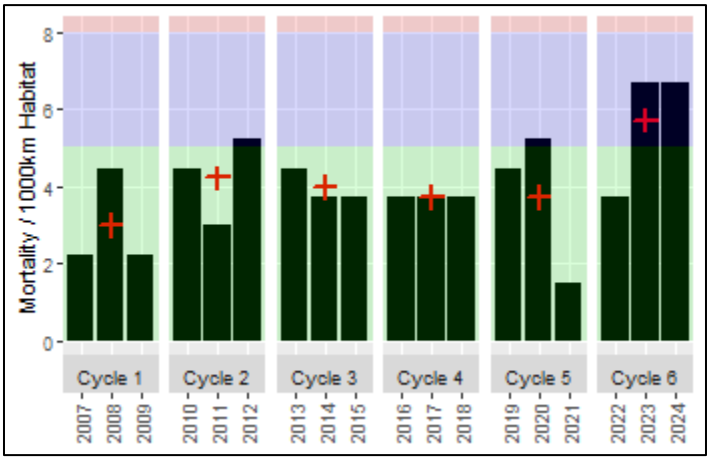
HY2022-HY2024 Regional Objective : Stable/Source management

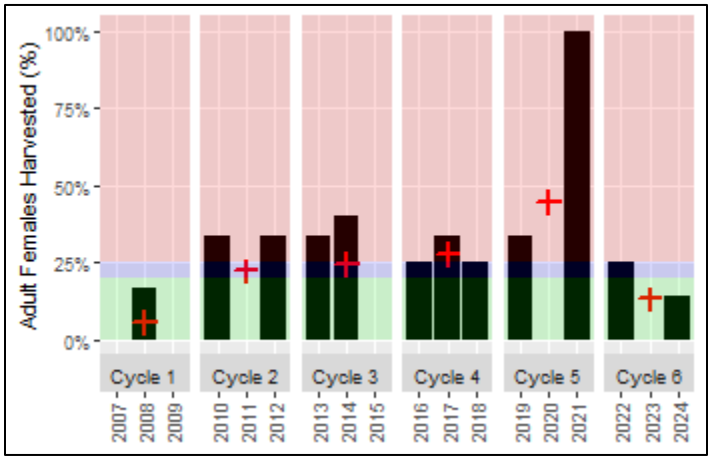
Assessment

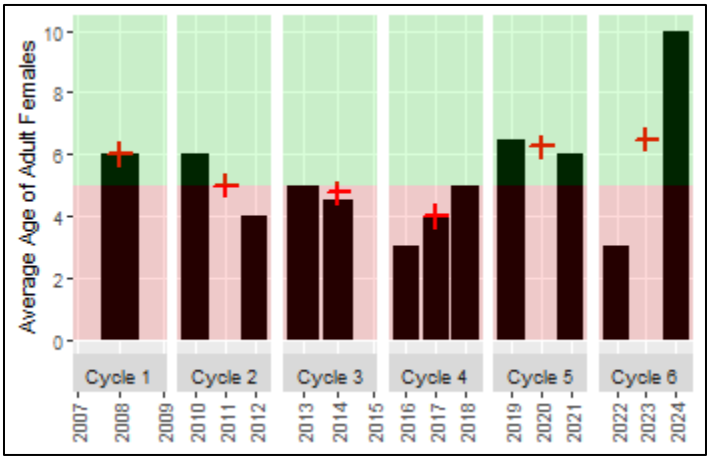
STABLE: Allowable mortality was reached in HY2023, with the increase in allowable harvest pushing mortality densities well within stable range for HA 29. The proportion of adult females in the harvest remained low in the current cycle. Selectivity reported by hunters was high at near 75%. One conflict was reported during the cycle.

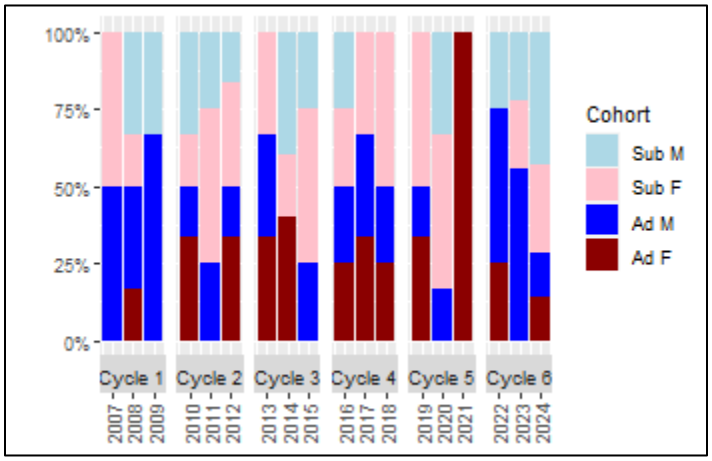
Hunt Area 29.

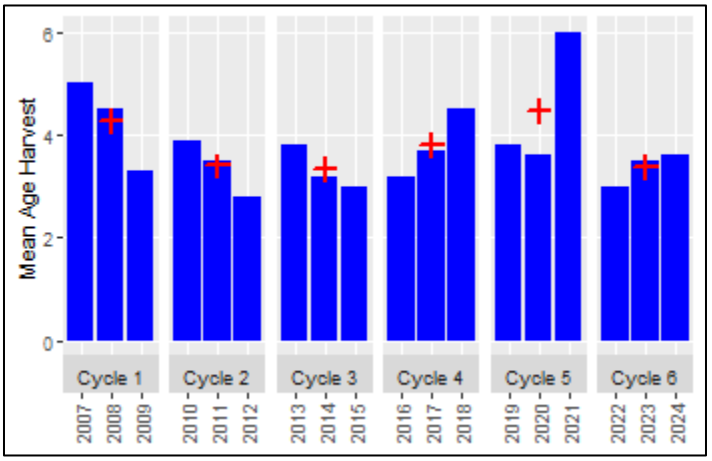

Mortality
Non-Harvest
Illegal Harvest
Legal Harvest
Harvest Limit
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

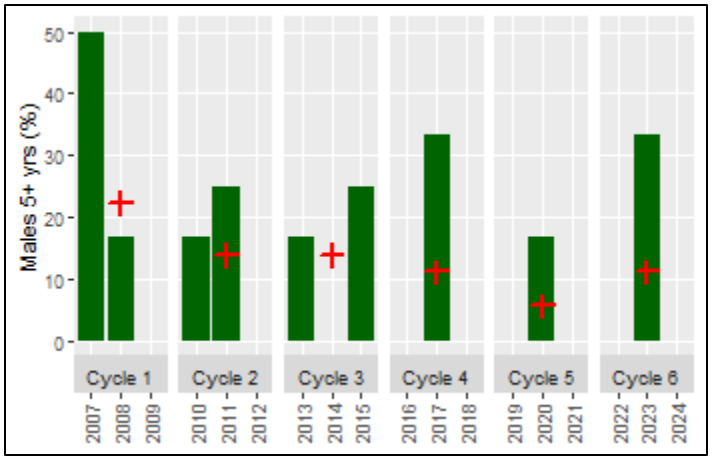

Mortality / 1000km Habitat
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

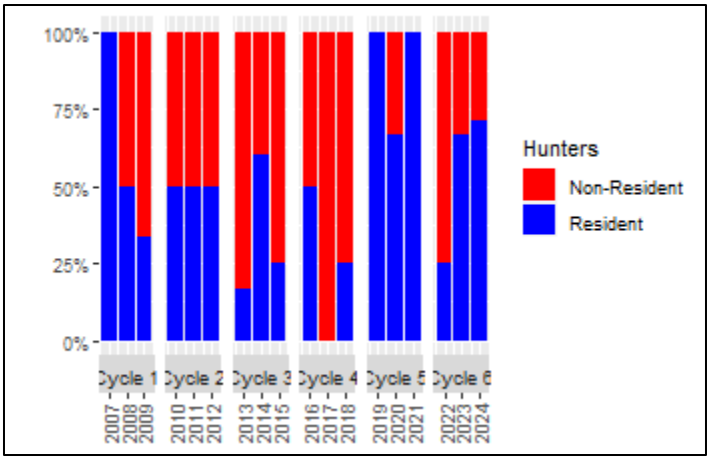

Adult Females Harvested (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Average Age of Adult Females
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Cohort
Sub M
Sub F
Ad M
Ad F
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Mean Age Harvest
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Males 5+ yrs (%)
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6


Hunters
Non-Resident
Resident
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6

APPENDIX B. WGFD form documenting mountain lion mortality data in Wyoming.

MOUNTAIN LION MORTALITY FORM

Hunt Area _____ Region _____

Date of kill: _____ TYPE: Legal_____; Illegal_____; Damage Control_____; Other_____; Unknown_____

If "Other" or "Unknown", probable cause of mortality _____

PERSON WHO HARVESTED LION: Name: _____

Address: _____ City: _____

State: _____ Zip: _____ Phone: _____ Resident: _____ Nonresident: _____

METHODS/EFFORT: Days hunted: _____ Were dogs used? (Y/N) _____ If not, how was lion harvested? _____

Was a guide/outfitter used? (Y/N): _____ Name: _____ Dog owner: _____

Number of lions observed including harvest: _____ Weapon used: _____

Were you selective while hunting? (Y/N): _____ Number treed and released: _____

Number of lions that were marked: _____ (Ear tag / tattoo / radio collar frequency : _____)

Number of fresh tracks not pursued: _____ (How many were single adults?: _____ How many were adults with kittens?: _____)

LOCATION/DRAINAGE: Where was lion harvested? _____

Sec: _____ Twnshp: _____ Rng: _____ **UTM Zone:** _____

UTM Easting: _____ **UTM Northing**: _____

SEX AND AGE: Sex: _____ Est. Age: _____

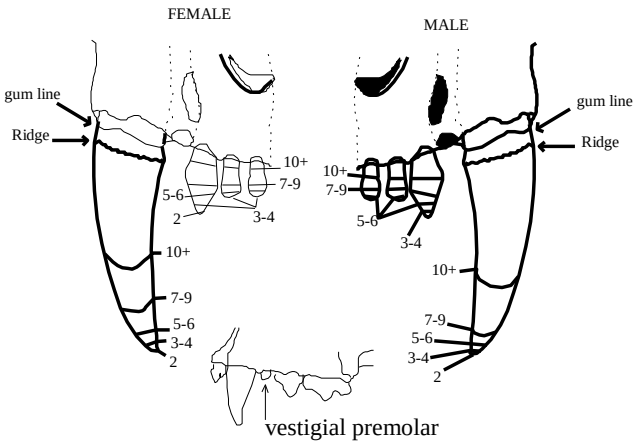
If female, presently lactating? (Y[≥2] / N) _____

Appear to have lactated in past? (Y / N) _____

Canine ridge below gumline? (Y[≥2.5] / N) _____

Any visible spotting on rear legs? (Y[≤3] / N / ?) _____

Visible bars on inside of front legs? (Y[<4] / N / ?) _____



REQUIRED SAMPLES:

Teeth collected (Y/N):_____ Pictures of teeth (Y/N): _____

Tissue sample (Y/N):_____

Remarks:

_____

_____

_____

Date Biological Services Called: _____

I, _____ of _____

being duly sworn, depose and say that I am the holder of Wyoming Mountain Lion license # _____,

and lawfully took the above lion on _____ - _____, 20_____ in Hunt Area # _____.

_____ _____ _____

Inspected by / GF Number Date Hunter's Signature

Any person who makes a false statement on the registration form regarding the date the mountain lion was taken or the hunt area in which it was taken shall be in violation of this regulation and, such violation shall be punishable as provided by Title 23, Wyoming statutes for violation of Commission regulations.

Note: The person that checked the lion should forward the completed form and all samples to the Regional Office of registration and call Biological Services to update the harvest database. The Regional Office of registration will keep a copy of the completed form and send the original, along with the tooth and hair samples to the Large Carnivore Section.

APPENDIX C. Statewide hunt areas, season dates, and limitations HY2022 – HY2024.

Hunt Area	Dates of Seasons	Mortality Limit	Limitations/Notes
1	Sep. 1 - Mar. 31	Resident Limit – 20 Nonresident Limit – 4	
2	Sep. 1 - Mar. 31	3	
3	Sep. 1 - Mar. 31	8	
4	Sep. 1 - Mar. 31	10	
5	Sep. 1 - Mar. 31	15	Additional license valid
	Apr. 1 - Apr. 30		Valid off national forest
6	Sep. 1 - Apr. 30	18	
7	Sep. 1 - Aug. 31	14	Additional license valid
8	Sep. 1 - Aug. 31	10	Additional license valid
9	Sep. 1 - Aug. 31	12	Additional license valid
10	Sep. 1 - Mar. 31	10	
11	Sep. 1 - Mar. 31	4	
12	Sep. 1 - Mar. 31	8	
13	Sep. 1 - Mar. 31	5	
14	Sep. 1 - Mar. 31	20	*30
15	Sep. 1 - Aug. 31	Unlimited	Additional license valid
16	Sep. 1 - Mar. 31	6	Additional license valid
17	Sep. 1 - Mar. 31	5	*8
18	Sep. 1 - Mar. 31	12	
19	Sep. 1 - Mar. 31	25	Additional license valid
20	Sep. 1 - Aug. 31	18	
21	Sep. 1 - Mar. 31	20	
22	Sep. 1 - Aug. 31	25	
23	Sep. 1 - Mar. 31	18	
24	Sep. 1 - May 31	Unlimited	Additional license valid
25	Sep. 1 - Mar. 31	12	Additional license valid
26	Sep. 1 - Mar. 31	15	*23
27	Sep. 1 - Aug. 31	Unlimited	Additional license valid
28	Sep. 1 - Mar. 31	4	
29	Sep. 1 - Mar. 31	6	*9
30	Sep. 1 - Mar. 31	12	
31	Sep. 1 - Aug. 31	11	Additional license valid
32	Sep. 1 - Mar. 31	25	

Brown = year-round harvest
Orange = extended regular season dates
*** Mortality limit increased by 50% for HY2023-HY2024**

APPENDIX D. Regional WGFD objectives set for local mountain lion sub-population trend, HY2022 – HY2024 season cycle.

MLMU	Hunt Area	Primary WGFD Region/s	Status Objective
Northeast	1	Casper	Sink
	30	Casper	Sink
	32	Sheridan/Casper	Sink
	24	Sheridan/Casper	*NA*
Northcentral	15	Sheridan/Casper	Sink
	21	Cody	Stable/Sink
	22	Cody/Lander	Sink
	23	Sheridan	Stable
Southeast	5	Laramie	Stable/Source
	6	Laramie/Casper	Stable/Source
	7	Laramie	Sink
	8	Lander/Laramie	Stable
	9	Laramie	Sink
	10	Green River	Sink
	16	Lander/Casper	Stable
	27	Casper	Sink
	31	Laramie	Sink
	25	Laramie	*NA*
Southwest	12	Green River	Stable
	13	Green River	Stable
	11	Green River	*NA*
Absaroka DAU	19	Cody	Stable/Source
	20	Cody	Stable/Sink
Wind River DAU	3	Pinedale	Stable/Source
	4	Lander	Stable
	18	Lander	Stable
	28	Lander	Source
Wyoming Range DAU	2	Jackson	Source
	14	Green River	Stable
	17	Pinedale	Stable/Source
	26	Jackson	Stable/Sink
	29	Jackson/Pinedale	Stable/Source

APPENDIX E. Table of mountain lion data relative to WGFD mountain lion management plan monitoring criteria for current management cycle (HY2022–HY2024).

		Mortalities/1,000 km^2			% Adult Female Harvest			Mean Age of Adult Females		
MLMU	**HA**	**2022**	**2023**	**2024**	**2022**	**2023**	**2024**	**2022**	**2023**	**2024**
	HA 1	9.49	13.05	14.23	13.3	27.3	16.7	3.0	4.5	4.5
	HA 30	1.52	4.56	4.56	100.0	40.0	40.0	3.0	4.5	7.0
Northeast	HA 32	6.85	8.13	5.99	25.0	26.7	35.7	3.2	6.8	4.6
	HA 24	*	*	*	15.4	11.1	10.5	6.5	3.0	5.5
	TOTAL	8.99	10.68	12.36	20.0	25.5	21.0	3.9	5.1	5.1
	HA 15	5.55	8.33	6.48	8.3	5.6	21.4	5.0	4.0	4.7
	HA 21	14.19	16.43	16.43	21.1	14.3	19.0	5.2	6.0	6.0
Northcentral	HA 22	8.24	5.11	7.10	4.0	0.0	26.1	5.0	NA	5.8
	HA 23	11.46	11.46	14.65	22.2	16.7	16.7	6.2	4.7	4.7
	TOTAL	9.08	8.85	9.78	13.5	9.5	21.1	5.6	5.1	5.4
	HA 5	5.21	3.47	2.78	33.3	11.1	12.5	4.4	5.0	5.0
	HA 6	5.40	5.40	4.62	16.7	22.2	44.4	6.7	5.8	5.1
	HA 7	15.17	13.38	13.38	28.6	7.1	7.1	6.0	3.0	7.0
	HA 8	7.22	7.22	5.78	22.2	30.0	37.5	8.5	5.0	4.3
	HA 9	14.84	17.80	7.42	10.0	8.3	0.0	6.0	4.0	NA
Southeast	HA 10	18.90	18.90	13.23	22.2	0.0	0.0	6.5	NA	NA
	HA 16	2.53	3.38	5.91	0.0	0.0	0.0	NA	NA	NA
	HA 25	*	*	*	0.0	0.0	0.0	NA	NA	NA
	HA 27	9.34	7.47	5.60	28.6	12.5	0.0	2.8	4.0	NA
	HA 31	8.75	7.00	10.50	25.0	40.0	0.0	3.0	5.0	NA
	TOTAL	7.78	7.42	6.34	22.6	14.0	15.5	5.4	4.9	5.1
	HA 11	*	*	*	100.0	0.0	25.0	5.0	NA	11.0
Southwest	HA 12	4.14	3.62	4.66	28.6	28.6	50.0	7.0	5.5	4.5
	HA 13	3.04	9.12	1.52	50.0	0.0	0.0	2.0	NA	NA
	TOTAL	4.25	6.95	5.41	40.0	11.8	38.5	5.2	5.5	5.8
	HA 19	5.09	3.45	4.36	8.0	16.7	19.0	6.5	6.0	5.5
Absaroka DAU	HA 20	7.95	6.81	8.52	15.4	18.2	6.7	7.0	3.5	7.0
	TOTAL	5.78	4.72	5.37	10.5	17.2	13.9	6.8	5.0	5.8
	HA 3	3.04	3.48	3.04	14.3	0.0	14.3	12.0	NA	8.0
	HA 4	5.21	3.72	4.47	14.3	0.0	20.0	10.0	NA	6.0
Wind River DAU	HA 18	3.03	4.54	3.78	0.0	20.0	40.0	NA	5.0	6.0
	HA 28	2.05	1.54	2.05	66.7	0.0	25.0	6.8	NA	3.5
	TOTAL	3.18	3.18	3.18	21.1	5.9	23.8	8.9	5.0	5.9
	HA 2	0.43	1.28	0.00	0.0	0.0	0.0	NA	NA	NA
	HA 14	6.22	8.29	7.25	17.6	4.2	30.0	4.0	8.0	4.2
Wyoming Range DAU	HA 17	4.16	5.54	5.54	0.0	12.5	12.5	NA	10.0	5.0
	HA 26	9.06	12.25	12.79	31.2	26.1	25.0	4.8	5.5	5.5
	HA 29	3.73	6.71	6.71	25.0	0.0	14.3	3.0	NA	10.0
	TOTAL	4.75	6.77	6.26	21.4	12.3	23.7	4.3	6.4	5.2
STATEWIDE	TOTAL	6.53	6.86	6.88	19.0	14.2	20.2	5.4	5.3	5.3

*****Represents a Hunt Area with minimal mountain lion habitat and not managed by WGFD for long-term population viability.

APPENDIX F. Table of mountain lion mortality and harvest age/sex data for Wyoming for the current management cycle, HY2022–HY2024.

MLMU	HY	Adult Females	Adult Males	Subadult Females	Subadult Males	Non-Harvest Mortality	Total Mortality
Northeast	HY2022	9	10	10	16	4	49
	HY2023	13	13	10	15	7	58
	HY2024	13	16	14	19	4	66
	Total	35	39	34	50	15	173
Northcentral	HY2022	10	27	20	17	6	80
	HY2023	7	23	24	20	4	78
	HY2024	16	24	19	17	8	84
	Total	33	74	63	54	18	242
Southeast	HY2022	21	38	19	15	17	110
	HY2023	13	29	20	31	10	103
	HY2024	13	30	20	21	5	89
	Total	47	97	59	67	32	302
Southwest	HY2022	4	6	0	0	1	11
	HY2023	2	3	4	8	1	18
	HY2024	5	5	1	2	1	14
	Total	11	14	5	10	3	43
Absaroka DAU	HY2022	4	17	10	7	9	47
	HY2023	5	11	7	6	4	33
	HY2024	5	19	6	6	3	39
	Total	14	47	23	19	16	119
Wind River DAU	HY2022	4	7	5	3	3	22
	HY2023	1	9	3	4	6	23
	HY2024	5	9	2	5	1	22
	Total	10	25	10	12	10	67
Wyoming Range DAU	HY2022	9	15	9	9	6	48
	HY2023	8	15	18	24	3	68
	HY2024	14	8	14	23	3	62
	Total	31	38	41	56	12	178
STATEWIDE	HY2022	61	120	73	67	46	367
	HY2023	49	103	86	108	35	381
	HY2024	71	111	76	93	25	376
	Total	181	334	235	268	106	1124