Species Management Report and Plan ADF&G/DWC/SMR&P–2018–11

Moose Management Report and Plan, Game Management Unit 7:

Report Period 1 July 2010–30 June 2015, and

Plan Period 1 July 2015–30 June 2020

Jason Herreman

2018

Alaska Department of Fish and Game Division of Wildlife Conservation

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Species management reports and plans provide information about species that are hunted or trapped and management actions, goals, recommendations for those species, and plans for data collection. Detailed information is prepared for each species every 5 years by the area management biologist for game management units in their areas, who also develops a plan for data collection and species management for the next 5 years. This type of report is not produced for species that are not managed for hunting or trapping or for areas where there is no current or anticipated activity. Unit reports are reviewed and approved for publication by regional management coordinators and are available to the public via the Alaska Department of Fish and Game's public website.

This species management report and plan was reviewed and approved for publication by Cynthia Wardlow, Management Coordinator for Region II for the Division of Wildlife Conservation.

Species management reports and plans are available via the Alaska Department of Fish and Game's public website (www.adfg.alaska.gov) or by contacting Alaska Department of Fish and Game's Division of Wildlife Conservation, PO Box 115526, Juneau, AK 99811-5526; phone: (907) 465-4190; email: dfg.dwc.publications@alaska.gov. The report may also be accessed through most libraries, via interlibrary loan from the Alaska State Library or the Alaska Resources Library and Information Services (www.arlis.org).

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Purpose of this Report

This report provides a record of survey and inventory management activities for moose in Unit *7* for the 5 regulatory years (RY) 2010–2014 and plans for survey and inventory management activities during the following 5 regulatory years 2015–2019. A regulatory year (RY) begins 1 July and ends 30 June (e.g., RY10 = 1 July 2010–30 June 2011). This report is produced primarily to provide agency staff with data and analysis to help guide and record its own efforts, but it is also provided to the public to inform it of wildlife management activities. In 2016, the Alaska Department of Fish and Game's (ADF&G) Division of Wildlife Conservation launched this 5-year report to more efficiently report on trends and describe potential changes in data collection activities. It replaces the moose management reports of survey and inventory activities that were previously produced every 2 years.

I. RY10–RY14 Management Report

Management Area

The area covered by Unit 7 consists of the eastern portion of the Kenai Peninsula and is bounded by the western edge of the Kenai Mountains, the Russian River, and the Harding Ice Field on the west and the western edge of the Sargent Ice Field and eastern edge of Spencer Glacier on the east (Fig. 1). The landscape of Unit 7 consists of mountainous terrain interspersed with river and creek drainages, a few large lakes, and ice fields. Riparian areas and hillsides are densely forested until reaching the alpine zone. Federally managed lands make up approximately 78% of Unit 7: 50% U.S. Forest Service-Chugach National Forest, 22% National Park Service-Kenai Fjords National Park, and 5% U.S. Fish and Wildlife Service-Kenai National Wildlife Refuge.

Most of Unit 7 is currently in a late successional stage comprised of mature stands of spruce, hemlock, birch, aspen, cottonwood, and alpine vegetation. No large fires have occurred in Unit 7 in the last 50 years and only 3 small fires totaling less than 4,000 acres have burned in recent years (AICC-Alaska Fire Service, 2018). The Chugach National Forest Management Plan prescribes a minimal acreage to be burned each year for wildlife enhancement (2,248 acres/yr.) and fuels management (400 acres/yr.) dependent upon budgets, conditions, and resources. No prescribed fire has been conducted since 2001 (Jeff Buschar, Fire Management Officer personal communication). Additionally, 323 acres/yr. are prescribed to be treated for wildlife habitat using mechanical treatment and 375 acres/yr. are prescribed for uneven age timber harvest (USDA Forest Service, 2002).

Summary of Status, Trend, Management Activities, and History of Moose in Unit 7

The moose population in Unit 7 is believed to be at a low overall density relative to historic levels and other game management units on the Kenai Peninsula as noted from fall composition surveys. Severe winters with deep snow are normal for this unit and probably contribute to a high mortality rate for moose in this area. During winter, animals are concentrated in lower riparian areas containing winter browse and lower relative snow depths.

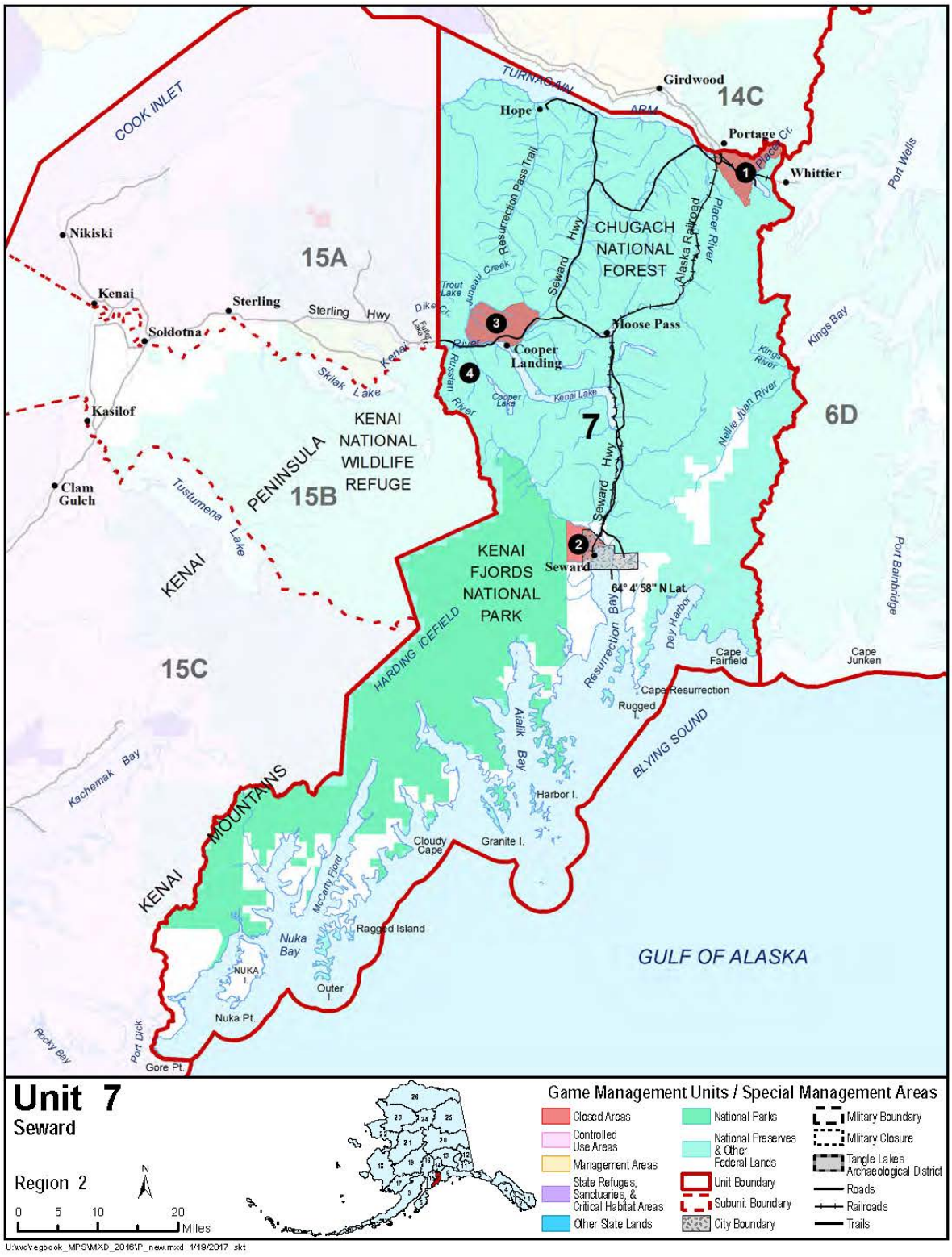

Figure 1. Map showing the boundaries of Unit 7, Alaska.

A moose population estimate has never been conducted in Unit 7. Trend count areas were established in the 1960s but have not historically been consistently flown. Little moose monitoring or research was conducted by the department in the 1970s and early 1980s in this unit due to budget constraints and other priorities. Survey efforts were increased during the 1990s, and since then the Resurrection Creek (7) and Juneau Creek (11) trend count areas have been counted every other year, as possible. While data from composition counts conducted in different years are not rigorously comparable, because survey intensity and conditions are inconsistent, these data provide indications of population trend. The limited composition counts suggest a steadily declining population trend over the last decade and a significant decline in the Unit 7 moose population since the 1970s.

Approximately 10% of the moose harvest on the Kenai Peninsula over the past 20 years has come from Unit 7. The highest recorded harvest in Unit 7 occurred in 1963 peaking at 427 moose. Harvest remained fairly steady throughout the 1960s and early 1970s averaging 159 moose (1964–1974). Recorded harvest fluctuated from 1975 to 1990 between 36 and 101 moose and has steadily declined since that time. Hunter participation, despite significant changes in seasons and bag limits, was fairly consistent up until 2011 when severe harvest restrictions were instituted (mean: 362 hunters per year, 1966 –2010). Between 2011 and 2015, average yearly hunter participation in the general season hunt dropped to 147 hunters per year during the general season hunt. Harvest restrictions were relaxed in 2013 with the addition of spike bulls back into legal harvest, but participation has not rebounded.

Management Direction

Existing Wildlife Management Plans

The 1976 Alaska wildlife management plan (Alaska Dept. of Fish & Game 1976) contains 3 sections that applied to moose management within Unit 7; the Kenai Peninsula, the Resurrection Pass, and the Portage Glacier Moose Management Plans. The Kenai Peninsula Plan identified goals, and guidelines for Unit 7 and 15 areas outside of Resurrection Pass and Portage Glacier, which included providing the greatest opportunity to participate in hunting moose while providing for optimum harvest, and opportunities to view, photograph, and enjoy moose. The Resurrection Pass Plan contained the goals to provide opportunity to hunt large antlered moose under aesthetically pleasing conditions, and provide the opportunity to view, photograph, and enjoy moose. The Portage Glacier Plan focused on viewing, photography, and enjoyment opportunity and closed moose hunting in the Portage Glacier Valley.

Recent management objectives, harvest strategies, and subsequent changes have resulted from public comment, staff recommendations, and Board of Game actions, and have been reported in the division's previous species management reports. The plan portion of this report contains the current management plan for moose in Unit 7.

Goals

- Protect, maintain, and enhance the moose population and its habitat in concert with other components of the ecosystem.

- Provide the greatest sustained yield opportunity to participate in hunting moose.
- Provide an opportunity for nonconsumptive uses (e g., to view and photograph moose).

CODIFIED OBJECTIVES

Amounts Reasonably Necessary for Subsistence Uses

- The Alaska Board of Game has issued a negative Customary and Traditional Use finding under 5 AAC 99.025(8) for moose in Unit 7; therefore, no part of the harvest is specifically allocated for subsistence use.

Intensive Management

- The Alaska Board of Game established a negative intensive management finding for the Unit 7 moose population under 5 AAC 92.108 in 1999.

MANAGEMENT OBJECTIVES

1. Maintain a healthy population of moose with a minimum bull-to-cow ratio of 20–25:100.
2. Promote public safety by maintaining the moose population at a level that reduces moose conflicts with Unit 7 residents, and by participating in land management decisions that affect moose movements in an effort to direct moose into areas with lower vehicle traffic.

MANAGEMENT ACTIVITIES

1. Population Status and Trend

ACTIVITY 1.1. Conduct composition counts in trend survey areas 7 and 11 semiannually in late November or early December.

Data Needs

Data on moose population health and status are needed to inform management action. The composition count method provides a reliable metric that can be obtained most years to provide trend data for analysis.

Methods

Composition counts are conducted annually from a Piper PA18 Super Cub or equivalent aircraft if conditions allow in established trend count areas. Major drainages, which are areas where moose congregate after snow accumulation in Unit 7, are flown for complete coverage and all moose sighted are categorized as cow, calf, or bull in the following categories: spike-fork, greater than spike-fork, less than 50-inch antlers, and greater or equal to 50-inch antlers. From these counts the following metrics are calculated: bull to cow ratio, calf to cow ratio, percent calves, total moose, and moose per hour flown. Currently composition counts are conducted in trend areas 7 (Resurrection Creek Drainage) and 11 (Juneau Creek Drainage).

The actual number of moose counted during composition counts is not rigorously comparable between all years, because survey intensity and conditions are inconsistent. Composition counts are designed to achieve an adequate sample of moose to calculate ratios of bulls to cows and calves to cows.

Results and Discussion

Data from composition counts conducted during RY10–RY14 suggest a continuing downward trend in the size of the Unit 7 moose population. Composition counts conducted in count areas 7 and 11 during December of 2010 and 2011 produced bull: cow ratios below our management objectives of 20 –25 bulls: 100 cows (17 and 12 respectively, Table 1). Calf to cow ratios produced during these surveys were also low, 10 calves: 100 cows in 2010 and 18 calves: 100 cows in 2011, compared to the 1964 –1974 average of 26 calves: 100 cows, when the population was believed to be productive. These calf to cow ratios are also low compared to other units on the Kenai Peninsula and within the state (Table 2). Surveys conducted in 2013 showed an increase in the bull:cow ratio to 25:100 with a decline in the percent calves to 11%. Over the same 3 surveys the moose observed per hour decreased from 20 to 11 (Table 1). Total counts numbers have also decreased from the 400–600 moose seen during counts in the early 1970s to an average of 81 moose. These factors suggest a significant population decline.

Table 1. Unit 7, Alaska moose aerial composition counts, regulatory years[a] (RY) 2010–2014.

RY	Bulls: 100 cows	Calves: 100 cows	% Calves	Adults	Total moose observed	Moose/hr
2010	17	10	8	70	76	20
2011	12	18	14	82	95	14
2012	No surveys conducted					
2013	25	16	11	64	72	11
2014	No surveys conducted					

[a] A regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2010 = 1 July 2010–30 June 2011.

Table 2. Mean calf-to-cow ratios from selected game management units (GMU) in Alaska.

GMU	Years	Average	Source
11	2011–2013	20	Hatcher, 2017
14A	2011–2013	38	Peltier, 2017a
15A[a]	2010–2013	26	Herreman, 2018
15C[a]	2010–2014	23	Herreman, 2018
16B	2009–2014	25	Peltier, 2017b
20A	2010–2015	30	Young Jr., 2017

[a] Kenai Peninsula GMU.

Recommendations for Activity 1.1.

Continue composition counts in trend areas 7 and 11 as an index of population trends.

2. Mortality–Harvest Monitoring and Regulations

ACTIVITY 2.1. Monitor annual harvest and mortality patterns in Unit 7.

Data Needs

Annual harvest summaries are needed to establish harvest quotas to ensure we are managing within sustained yield. Monitoring and documentation of roadkill, train mortality, and illegal take also help to ensure that harvest is maintained within sustained yield limits.

Methods

Harvest is monitored through mandatory sealing of antlers and harvest reports from harvest tickets and permit reports that are recorded in WinfoNet, the central ADF&G harvest database. Documentation of roadkills and trainkills comes from trooper dispatch reports and railroad incident reports. Illegal harvest is documented from sealing reports, trooper reports, and other incidental findings. Roadkill, trainkill, and illegal harvest data are maintained at the local level on the Homer office shared network drive: (O:)DWC/ADF&G-Homer Files/Species Data/Moose.

Season and Bag Limit

The general season for Unit 7 has been open 20 August–20 September since 1993. From 1987 to 2010, the bag limit was 1 bull with a spike or fork on at least 1 antler, 50-inch antlers, or 3 or more brow tines on either side (SF-50-3bt). Harvest statistics are shown in Table 3. In 2011, the bag limit was restricted to 1 bull with 50-inch antlers or antlers with 4 or more brow tines on at least 1 side (50-4bt). In 2013, spike bulls were added back into the harvest (S-50-4bt). Current Unit 7 moose season dates and bag limits are available online:

http://www.adfg.alaska.gov/index.cfm?adfg=wildliferegulations.hunting.

Table 3. Unit 7, Alaska reported general season moose harvest and accidental death, regulatory years[a] (RY) 2010–2014.

	Reported Hunter Harvest				Accidental death			Reported
RY	Bull	Cow	Unk	Total	Road	Train	Total	Mortality
2010	23	0	1	24	15	1	16	40
2011	9	0	0	9	21	23	44	53
2012	2	0	0	2	9	4	13	15
2013	4	0	0	4	15	1	16	20
2014	13	0	0	13	6	0	6	19

[a] A regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2010 = 1 July 2010–30 June 2011.

Federal regulations allow hunting by federally qualified rural residents on federal lands (Chugach National Forest) with a season date of Aug. 10-Sept. 10 with a bag limit of 1 bull SF-50-3bt. Current regulations and information on qualified users can be found online:

http://www.doi.gov/subsistence/index.cfm.

Results and Discussion

Harvest by Hunters

The average annual reported harvest from RY10 through RY14 in Unit 7 was 10 moose. This is a greater than 50% decline to the previous 5-year average of 26 moose and is drastically lower than the 1963 –1983 historic average of 104 moose per year. Part of this decline is likely due to increased antler restrictions instituted in RY11 and RY12, but even with the relaxation of these restrictions in 2013 a significant increase in harvest was not noted. The most likely cause for harvest decline is a significant decline in population levels and legal animals available for harvest. The slight bump in RY14 harvest levels is likely due to a few more legal animals becoming available for harvest due to the RY11 and RY12 harvest restrictions.

Accidental deaths were considerably higher than hunter harvest during RY11–RY13 (Table 3).

Permit Hunts

Information for permit hunts DM210 and DM211, which includes land in both Unit 7 and Unit 14C, is reported in the Unit 14C management report. Permit hunt DM522, which encompassed portions of Units 7 and 15A has been suspended since 2008 due to low moose numbers.

Federal Hunts

An average of 1 moose per year was harvested under federal subsistence regulations in Unit 7 during this reporting period.

Hunter Residency and Success

A little under half of all general season hunters RY10–RY14 were residents of Unit 7. The 5-year average of the annual success rates declined from 9% (RY05–RY9) to 6%, Table 4).

Harvest Chronology

Moose were harvested throughout the season (Table 5). The chronology of the harvest appears to depend on weather conditions and other factors unrelated to moose abundance.

Transport Methods

Highway vehicles remain the chief transportation method used by successful hunters in Unit 7 (Table 6).

Table 4. Unit 7, Alaska residency and success of moose hunters for the general season, regulatory years[a] 2010–2014.

	Successful hunters				Unsuccessful hunters				
RY	Local[b] Resident	Nonlocal Resident	Non-Resident	Total[c] (%)	Local[b] Resident	Nonlocal Resident	Non-Resident	Total[c]	Total hunters
2010	14	8	2	24 (10)	103	114	11	231	255
2011	3	4	2	9 (6)	57	76	7	144	153
2012	0	2	0	2 (2)	51	47	6	104	106
2013	2	1	1	4 (33)	63	83	9	156	160
2014	6	6	1	13 (8)	72	74	4	150	163

[a] A regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2010 = 1 July 2010–30 June 2011.
[b] Local = residents of Unit 7.
[c] Includes unspecified residency.

Table 5. Unit 7, Alaska moose general season harvest chronology (percent of harvest), regulatory years[a] 2010–2014.

	Percent harvest by period							
RY	8/20–8/25	8/26–8/31	9/1–9/5	9/6–9/10	9/11–9/15	9/16–9/20	Unknown	Harvest
2010	17	4	17	13	25	21	4	24
2011	22	11	11	22	33	0	0	9
2012	50	0	0	0	50	0	0	2
2013	0	0	25	25	0	50	0	4
2014	23	0	0	46	15	8	8	13

[a] A regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2010 = 1 July 2010–30 June 2011.

Table 6. Unit 7, Alaska general season transport methods for successful moose hunters (percent of harvest), regulatory years[a] 2010–2014.

	Percent of harvest by transportation type							
Regulatory Year	3- or 4-wheel ATV	Airplane	Boat	Highway Vehicle	Horse/ Dog team	ORV	Unknown	Harvest
2010	4	8	4	50	21	4	8	24
2011	0	0	0	67	33	0	0	9
2012	0	0	50	50	0	0	0	2
2013	0	0	0	75	25	0	0	4
2014	0	8	15	46	0	8	23	13

[a] A regulatory year begins 1 July and ends 30 June, e.g., regulatory year 2010 = 1 July 2010–30 June 2011.

Other Mortality

Highway vehicles killed an average of 13 moose per regulatory year during the past 5 years in Unit 7 (Table 3). This is a decrease from the previous 5-year average (RY05–RY9) of 23 and likely reflects decreasing population numbers. The effect of wolf and bear predation on moose and the degree of illegal take are unknown. In addition, the level of mortality for moose during years of heavy snow accumulation is probably high and a significant limiting factor.

Alaska Board of Game Actions and Emergency Orders

During the March 2013 meeting, The Board of Game eliminated the Resurrection Creek closed area for moose hunting around the community of Hope and changed the antler requirements for a legal bull from 50-inch or 4 brow tines on either side to 50-inch or 4 brow tines on either side and spike for all general season hunts in Units 7 and 15. The Placer River Area Hunt (DM211) was reauthorized each year by the board as required in regulation. BOG meeting summary information is available on the ADF&G website:

http://www.adfg.alaska.gov/index.cfm?adfg=gameboard.meetinginfo.

Recommendations for Activity 2.1.

Continue monitoring harvest through antler sealing and harvest tickets and documenting other sources of human-caused mortality.

3. Habitat Assessment–Enhancement

ACTIVITY 3.1. Monitor moose browse production and removal on a triannual basis to better understand sustainability of moose density.

Data Needs

Monitoring forage plants provides information about the amount of available browse removed by the existing moose population and the degree of browsing pressure during the life of the plant

(Seaton 2002). Browse biomass removal is an indicator of moose nutritional condition (Seaton 2002, Boertje et al. 2007, Seaton et al. 2011). Monitoring browse plant architecture provides additional information on the effects of moose browsing on vegetation condition as a function of moose density (Seaton 2002, Paragi et al. 2015). Browse data are best used in conjunction with weather, body condition, and other animal parameters to assess habitat condition and trend, to gauge whether more or less moose can be sustained on the landscape.

Methods

Forage plant production, architecture, and browse removal are characterized using methods from Seaton (2002).

Results and Discussion

No habitat assessment surveys were completed during the reporting period.

Recommendations for Activity 3.1.

Modify: institute browse surveys.

ACTIVITY 3.2. Complete habitat enhancement activities to increase moose population numbers.

Data Needs

Work with land managers to identify treatment areas that would be most beneficial to facilitate future prescribed and wildland fire use and provide protection to communities from wildfires.

Methods

No habitat enhancement activities were planned or completed during the reporting period.

Results and Discussion

Nothing to report.

Recommendations for Activity 3.1.

Continue (no action) but consider identifying data needs and habitat conditions that would warrant the cost and staff time for habitat enhancement.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

No nonregulatory management problems or needs have been identified at this time. Viewing opportunities for moose remain available throughout Unit 7 but are limited due to current population levels.

Data Recording and Archiving

- Composition count data are stored on the computer server in the Homer office (O:\DWC\ADF&G-Homer Files\Species Data\Moose\Survey Data).

- Field data sheets are stored in filing cabinets in the Homer AAB's office and scanned and housed on the computer server in the Homer office (O:\DWC\ADF&G-Homer Files\Species Data\Moose\Survey Data).

Agreements

No management agreements exist for Unit 7 moose.

Permitting

No specific permits related to moose management exist for Unit 7.

Conclusions and Management Recommendations

Our main concern for the moose population in Unit 7 is the apparent decline in moose numbers. Anecdotal reports from local residents and hunters suggest the population has declined from levels seen in the 1980's. Moose vehicle collisions, long-term harvest trends, and composition counts also all indicate a decline. The main cause is likely generally poor habitat due to forest succession. In the future, it would be beneficial to work with the U.S. Forest Service to generate a long-term plan to address habitat concerns.

Moose numbers in Unit 7 appear to be chronically low and according to our limited data it appears we are meeting only a portion of our management objectives. Roadkill and human conflicts with moose are low in Unit 7, but this appears to be due to low moose numbers rather than good land management practices. We expect bull-to-cow ratios to come back within management objectives due to the harvest restrictions imposed in 2011. Unfortunately, population numbers are not likely to increase until large-scale habitat manipulation or natural improvements in moose habitat occur.

In spite of conservation concerns raised by ADF&G and hunting seasons that had never begun before 20 August, the Federal Subsistence Board granted residents of Cooper Landing (2008) and Hope (2010) a moose season that starts on 10 August in Unit 7 on Federal Lands. This season was previously only open to residents of Chenega Bay and Tatitlek. The department will be working closely with the Board of Game to address Kenai Peninsula moose population concerns and moose management strategies. The department will continue to recommend to the federal board that it implement similar and consistent strategies to those being used by the department.

II. Project Review and RY15–RY19 Plan

Review of Management Direction

MANAGEMENT DIRECTION

There are no new management plans or broad changes in management direction.

GOALS

- Protect, maintain, and enhance the moose population and its habitat in concert with other components of the ecosystem.
- Provide the greatest sustained yield opportunity to participate in hunting moose.
- Provide an opportunity for nonconsumptive uses (e g. to view and photograph moose).

CODIFIED OBJECTIVES

Amount Reasonably Necessary for Subsistence Uses (ANS)

- No change is expected.

Intensive Management

- No change is expected.

MANAGEMENT OBJECTIVES

Objectives will be the same as during RY10–RY14:

M1. Maintain a healthy population of moose with a minimum bull to cow ratio of 20 –25:100**.**

M2. Maintain moose populations at a level to promote public safety through directed harvest, and participate in land management decisions that affect moose movements in an effort to direct moose into areas with lower vehicle traffic**.**

REVIEW OF MANAGEMENT ACTIVITIES

All RY10–RY14 activities will be continued for RY15–RY19 with changes to needs and methods as described below.

1. Population Status and Trend

ACTIVITY 1.1. Conduct composition counts in survey areas 7 and 11 semiannually in late November or early December.

Data Needs

In addition to previously stated data needs, population estimates conducted a minimum of every 3 years or a reliable population metric would increase the ability to manage this population on a sustainable basis.

Methods

Efforts will be undertaken to develop a method to conduct a population estimate or a reliable population metric for Unit 7. Three methods that could potentially be developed include a FLIR

(Forward Looking Infrared Radar), a genetics-based population survey, or a late winter drainage corridor survey focused on counting all visible moose that are driven into lower riparian areas by snow loads at higher elevations.

2. Mortality–Harvest Monitoring

ACTIVITY 2.1. Monitor annual harvest and mortality patterns in Unit 7.

Data Needs

No change from prior reporting period.

Methods

Current data collection methods are sufficient. However, currently, the WinfoNet data system tracks only legal harvest that is documented through a harvest ticket or permit report. All other documented mortality including known illegal harvest, Defense of Life or Property (DLP) kills, roadkill, trainkill, and "legal harvest" that is not properly reported on a harvest ticket will continue to be maintained in the moose harvest database located on the Homer office shared drive (O:\DWC\ADF&G-Homer Files\Species Data\Moose\Moose Harvest).

3. Habitat Assessment–Enhancement

Activity 3.1. Monitor moose browse production and removal on a triannual basis to better understand sustainability of moose density.

Data Needs

No change from prior reporting period.

Methods

Browse surveys following the methods of Seaton (2002) will be instituted as a metric to help monitor population levels, since population estimates are not feasible using current methods.

ACTIVITY 3.2. Complete habitat enhancement activities to increase moose population numbers.

Data Needs

No change from prior reporting period.

Methods

No change from prior reporting period.

NONREGULATORY MANAGEMENT PROBLEMS OR NEEDS

- A reliable moose population estimation technique that can be applied in years of low snow and in densely forested areas needs to be developed. As climate change continues, current survey techniques are likely to become less reliable for all management areas. We will continue to work with research staff to explore and develop new research techniques.

Data Recording and Archiving

- Composition count data are stored on the computer server in the Homer office (O:\DWC\ADF&G-Homer Files\Species Data\Moose\Survey Data).

- Field data sheets are stored in filing cabinets in the Homer AAB's office and scanned and housed on the computer server in the Homer office (O:\DWC\ADF&G-Homer Files\Species Data\Moose\Survey Data.

- Historical (pre-2010) survey notes and data sheets are stored in the Homer AAB's office and are being scanned onto the office server office (O:\DWC\ADF&G-Homer Files\Species Data\Moose\Survey Data.

Agreements

There are no planned moose specific management agreements for Unit 7 during RY15–RY19.

Permitting

The department does not expect to seek or issue any moose related permits in Unit 7 during RY15–RY19.

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