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# FACTSHEET

April 12, 2013

Ministry of Forests, Lands and Natural Resource Operations

## Provincial overview of moose population estimates for 2013

### Summary

During the past winter (2012/13), Ministry of Forests, Lands and Natural Resource Operations regional staff have undertaken 21 moose population surveys. These results, as well as those in 2011/12, indicate that certain areas of the province are experiencing a decline in moose numbers including the Cariboo, central Omineca, the Nass Wildlife Area and the North Thompson. It is important to note, however, that moose populations in other areas of the province are stable.

In addition to conducting moose surveys, the ministry has started to develop a provincial moose management framework in cooperation with the BC Wildlife Federation and Guide Outfitters Association of BC. While still in draft stage, the framework has compiled a list of potential factors that may be associated with declining moose populations and includes; unregulated hunting, increased access, increased predation by wolves, changing environmental conditions (including habitat changes resulting from the mountain pine beetle infestation and timber salvaging), and cumulative impacts of one or more of these factors.

Province-wide, the decline in some moose populations is not considered to be an immediate conservation concern. However, the 2012/13 survey results mean that the Limited Entry Hunt (LEH) for moose in 2013 will be reduced in certain areas.

This backgrounder summarizes the survey findings in 2012/13 by region along with regional response actions where relevant.

The current (2011) estimate for B.C.'s moose population is 145,000 to 235,000. This number is updated every three years based on a range of information, with the next full update scheduled for 2014. For additional information visit: [http://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/2011\\_Province%20Ungulate%20Numbers%202011\\_August%2024.pdf](http://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/2011_Province%20Ungulate%20Numbers%202011_August%2024.pdf)

### Peace Region

- In 2012/13, three moose surveys were conducted, one in the Kechika in the northern part of the region, one near Chetwynd, and one south of Pink Mountain. Survey results for both the Kechika and Chetwynd areas found moderate moose densities. The survey south of Pink Mountain found high moose densities, although slightly lower than those found in 1996.

### Response:

- Ministry staff will continue to monitor the population and assess results. No specific changes to the harvest management regime for moose in the Peace Region are anticipated as a result of the recent surveys.

- The ministry is considering a review of moose assessment and management procedures in the region following the finalization of the Provincial Moose Framework. The review would involve in-depth consultation with First Nations and other stakeholders.

### **Omineca Region**

- Recent surveys have confirmed results from 2011/12, finding some moose densities in the central portion of the region around Prince George have declined by 50 per cent since 2005.
- Populations in the northern part of the region have remained relatively stable.
- Although moose surveys in the Prince George area have documented a substantial decline, current moose densities remain consistent with healthy populations in other parts of North America.

#### Response:

- Ministry staff are working closely with key stakeholders, wildlife experts and First Nations to investigate the cause for the declines in the Prince George area, and will be examining options to promote recovery of those moose populations. A regional moose management plan is also being developed, also in close cooperation with stakeholders.
- In 2012, LEH cow numbers were reduced by 40 per cent from 2011 levels. Starting in 2013, LEH numbers for cow moose will be further reduced to only 10 per cent of 2011 levels. This is expected to result in a modest increase (5 to 10 per cent) in moose densities over the next five years.
- A computer population model is being developed to assess possible causes of the moose decline. This work is incorporating inventory results from 1982 to present including the newly acquired inventory data in 2011/12 and 2012/13.

### **Skeena Region**

- In 2011/12, a survey of the Bulkley Valley Lakes District survey confirmed that the moose population had declined from 2004 by 20 per cent. The population, however, is considered to be comparatively healthy, with good calf recruitment and bull to cow ratios above provincial objectives.
- There were two repeat surveys conducted in the Skeena Region this past winter. One survey near Terrace on the lower Skeena Islands generated a population estimate very similar to the previous estimate obtained in 1997.
- The Tweedsmuir/Entiako moose population south of Burns Lake was slightly higher than the 1997 estimate. Bull to cow ratio estimates for both populations were good, although calf recruitment was low in the Tweedsmuir/Entiako area.

#### Response:

- Additional resources for inventory allowed the ministry to determine separate population estimates for moose in Management Units (MU) 6-01 and 6-02 (in the southeast portion of the region), whereas the 1997 estimate was combined. This revealed a roughly even

distribution of moose in the area, where previously it was believed the majority (70 per cent) of the moose were in MU 6-01. This resulted in a shift of some licensed harvest opportunities from MU 6-01 to MU 6-02.

- The Lower Skeena survey confirmed that the population estimate being used to establish harvest rates and quotas was appropriate, and no changes are planned.

#### **Nass Wildlife Area (Nisga'a Final Agreement), 2011**

- Results from the 2010/11 survey indicated that there had been no increase in the moose population since the previous survey in 2007.
- The licensed hunting season in the Nass Wildlife Area was closed in 2012, based on 2010/11 survey results. The season remains closed for the current hunting season.

#### Response:

- There are no further regulation changes anticipated at this time.
- The province continues to collaborate with the Gitanyow First Nation and Nisga'a Lisims Government to develop a recovery plan for this population and to implement a "managed" First Nations hunt designed to recover the moose population in the Nass Wildlife Area.

#### **Cariboo Region**

- In 2012/13 a population survey was conducted west of Williams Lake that found a 45 per cent decline since 2001. A second survey was planned, but had to be cancelled due to poor weather conditions.
- Bull to cow ratios are stable and within provincial objectives, suggesting that the licensed harvest of bull moose has not been responsible for the declines in population.
- Calf to cow ratios were slightly below regional targets.

#### Response:

- Ministry staff have met and shared the survey results, population estimates and management implications with First Nations and stakeholders.
- A consultant has been hired to conduct an independent assessment of the factors influencing moose population dynamics in the Cariboo, with focus on areas west of the Fraser River where moose populations have declined substantially.
- This assessment is ongoing and will help inform future management decisions.
- In 2013/14, the allowable annual hunt has been decreased based on revised population estimates. This will result in further reductions of LEH authorizations for resident hunters, as well as additional quota restrictions for guide outfitters.

### **Thompson Okanagan Region**

- Considerable survey work was undertaken in 2012/13 in the region, including:
  - A survey in the Monte Hills south of Kamloops which found moderate moose densities and low bull to cow ratios. The low ratios are possibly an indication of elevated bull harvesting success given high resource road densities.
  - A repeat survey on the Bonaparte plateau found stable populations with slightly lower calf to cow ratios that may be indicative of high wolf predation.
  - A third survey in 2012/13 which documented an approximate 60 per cent decline in moose densities in parts of the North Thompson. There is limited hunting in this area but anecdotal evidence suggests increasing wolf predation may be a factor.
  - In the Okanagan, four surveys were conducted in 2012/13 of which one was a repeat survey. The repeat survey found increasing moose densities. The other three found moderate moose densities overall. There continues to be a problem with low bull to cow ratios in several areas, which may be attributable to increased bull harvest.

#### Response:

- Continue regular engagement with stakeholders and First Nations.
- In the Thompson, a partnership with the Secwepemc Nation is supporting a radio-collaring initiative to examine moose survival and habitat use north of Savona.
- No changes to the regulations are anticipated in the Thompson at this time.
- In the Okanagan, regulations for bull harvest are being reviewed and some reductions in LEH permits may occur in 2013.

### **Kootenay Region**

- Two surveys conducted in 2012/13 south of Cranbrook found low density moose populations.
- Surveys conducted over the past four winters generally show bull to cow ratios above the provincial target of at least 30 bulls to 100 cows.

#### Response:

- Continue regular engagement with stakeholders and First Nations.
- No changes to the regulations are anticipated at this time.