

MOOSE – Where Did They Come From?

By Dr. Vince Crichton

The evolution of Canada's present day moose population can be traced back to those populations which inhabited eastern Asia. Compared to most of the emigrant species moving to North America, moose were likely a late arrival coming toward the middle of the fourth and last glaciation period (Wisconsinian) which was approximately 70,000 to 10,000 years ago. The movement between Asia and North America was facilitated by the Bering Strait land bridge or Beringia as it is known today. When this corridor was ice free it presented a natural corridor for migration between the continents which almost assuredly resulted in their arrival prior to humans.

Moose dispersed along the present day McKenzie River basin in an ice free corridor created by retreats and divisions of the continental ice cap into two ice sheets. As the ice sheets began to melt with global warming about 14,000 years ago moose moved south in this corridor and took up residence in those suitable habitats to the south of the Laurentian ice sheet to the east and the Cordilleran to the west. As the ice sheets melted, moose gradually moved north taking advantage of those emerging habitats which were conducive to them. This colonization is illustrated in maps which have been published elsewhere depicting the post glacial dispersion of moose from the south to more northerly environments.

Currently moose occupy all Canadian jurisdictions except Prince Edward Island. They occupy most of Canada's boreal zone but are increasing their populations in the prairie areas of southern Saskatchewan, southwest Manitoba and expanding in Nunavut and Labrador. There have been 2 transplants namely to Newfoundland in 1904 and to Nova Scotia's Cape Breton Highlands in 1948. These relocated animals have adapted well to the available habitats. They are now found north near Kugluktuk in Nunavut and Richards Island in the Northwest Territories' (NWT) MacKenzie Delta. Their expansion into the agricultural areas of southwest Manitoba, southern Saskatchewan and southern Alberta is of interest. One factor contributing to this is the demise of small privately owned farms which in Saskatchewan have declined from about 140,000 in the 60's to about 40,000 today. The only population currently

listed as endangered is that on mainland Nova Scotia. However, there are locations where populations have declined dramatically and none more noticeable than the aspen parkland of Manitoba where some populations have declined by 60%+. Levels are such that their viability is at high risk. When populations decline to a couple of hundred animals or less and with natural mortality (e.g. predation, diseases) the chances of recovery are not feasible without some major intervention.

Moose in Ontario are now more widely distributed than they were historically (e.g. 100+ years ago). They were largely absent from a large area north of Lake Superior. As a young boy growing up in the Chapleau area of northern Ontario I vividly recall my biologist father telling me that the first moose seen in this area that he could find records of was in 1908. He further reported that in 1956, while stationed at Winisk, the first moose was seen along the Winisk River (near the junction of Manitoba and Ontario on the Hudson Bay) by Aleck Hunter, a resident of the aforementioned community. The suggestion is that moose were likely present but in extremely low densities. A perusal of Samuel Hearne's dairy (A Journey to the Northern Ocean 1745-1792) is most informative in terms of moose occurrence. In his travels he did not see any presence of moose until he reached the Lake Athabasca (Lake Athapuscow) area of northern Alberta. However, he states that they did obtain moose hides when he and his northern Indian guides met up with southern Indians indicating that these southern folks peoples had an abundance of moose in their homeland.

In light of the aforementioned it is interesting to peruse a 1955 document written by J. E. Bryant from Manitoba's Game and Fisheries Branch which is as follows: "Ernest T. Seton in a paper he presented to the historical and Scientific Society of Manitoba (Transaction No. 23, May 27, 1886) entitled The Mammals of Manitoba p 1-15 included the following statement : ".....at present (the moose) is found in great numbers only about the south of the Hudson Bay and in the region north of great Slave Lake. In Manitoba it is sparingly distributed wherever the habitat is congenial. But it may be described as plen-

tiful in the Duck and Riding Mountains and in the low country about the large lakes." Seton also records a moose hunt at Carberry (MB) where he was then resident. Further, in his "Lives of Game Animals" p. 175 Seton quotes a Mr. G. H. Meacham as reporting in 1900: "The moose is however, far from being scarce or in much danger of becoming extinct. I can safely say that within 50 miles of Winnipeg there are hundreds of moose; and that within 100 miles there are thousands of them." He also records an estimate of 10,000 as the annual kill for the pre 1912 period in MB (This figure is likely on the high side and he does not indicate how it was obtained). Seton also (p. 191) quotes Canadian Forests and Outdoors (1923) as saying that "Last year there were approximately 10,000 moose killed in Canada. Credence to the Meacham statement can be found in the Manitoba Museum of Man and Nature which contains hundreds of moose artifacts collected from southern Manitoba and the Red River Valley some of which have been aged at 4500 years old.

Bryant goes on to state that "a kill of over 1,000 per year occurs in Northern Manitoba from an estimated population of 12,000 with perhaps 85% being taken by Treaty Indians or at least by non licence holders." He does not indicate what his definition of northern Manitoba is.

The landscape has changed in the last 150 years and if this resource is to be available for future generations it is imperative that discussions begin to ensure that all harvesting is controlled. As government is the management authority, provincial, territorial and the Federal governments must be involved along with ALL user groups to level the playing field and to ensure the annual harvest is sustainable. Moose have not changed since they walked across the Bering land bridge but one must look at the technologies now available to hunters: cars, trucks, ATV's, snow machines, airplanes, high powered firearms and roads for greater access which results in habitat fragmentation on top of the aforementioned – all are cumulative. What chance do they have of being our heritage to future generations? There is a small contingent of biologists and members of the public who will not rest until order is brought to resource management that involves all – if resources become unsustainable, it is then time politicians and those politically appointed bureaucrats be held responsible.