SOME FOREST WILDLIFE PROBLEMS IN NEW BRUNSWICK

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The province of New Brunswick has long been known for its wildlife and the universal interest in hunting and fishing among all ages and classes of its people. The province first came into the public eye as a hunting area in the early days of this century when caribou and moose were the main attraction, and salmon anglers have been an old and constant source of revenue. A few places along the coast have become established as centers of goose and brant shooting, but duck shooting has never developed into a major sporting industry as it has in the Mississippi valley mainly because even at their best the Atlantic Flyway flights do not approximate those of the western flyways. Woodcock shooting has developed as a major sport in recent years, but as this is a highly specialized sport requiring trained dogs for any real degree of success, it has been confined to a relatively small group. But it is in the field of forest wildlife that the interests of the native New Brunswicker lies, rather than in migratory birds, and this paper will discuss some of the aspects of the policies at present in force which directly affect this resource.

The economy of New Brunswick is to a very large extent built around the forest industries, and the regeneration and development of suitable commercial forests for the pulp and paper industry is the prime concern of a large and well-organized group of professional foresters. This group has been solely concerned with the production of cellulose and has given no planned aid to the production of game. However, it is fortunate that the two policies in this case have gone hand in hand up to this point.

The removal of almost all the mature softwood stands has resulted in the reversion of the plant succession to the stages most suitable to hoofed game over great areas in the province. The initial penetration of the wilderness areas by logging outfits played a large part in the total destruction of the native herds of caribou, and the collapse of the moose peak after about 1920 was not halted by the great increase in suitable winter range which was taking place at the same time due to the cuttings growing up into many square miles of first-class browse. The deer herd had been at a low level in the days of the mature forests and the dominance of moose and caribou, but with the virtual removal of the two dominants and the wide-spread reversion to early stages of the plant succession it began to increase rapidly.

The annual kill had risen to 10,873 by 1930 with the moose season still open, but by 1936 the moose had sunk below the level which would support any sort of hunting, even with the deer acting as a buffer and absorbing some of the pressure, and the season was closed entirely. The deer kill continued to rise until in 1950 it reached the high to date of 22,240, or a 52 per cent increase in the last 20 years. This species is now the only big game animal which can be hunted in the province with the exception of the black bear which is classed as vermin. As whitetail deer hunting is common over most of North America, New Brunswick has lost its only two real drawing cards

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for the big game hunter, the moose and the caribou, and Newfoundland has taken its place.

The effect of a rapidly increasing deer population upon the forest succession has been demonstrated in many areas to be detrimental to a forest management policy which stipulates that the primary land use shall be the production of commercial forests. The yardstick by which the balance may be struck and the allowable maximum deer population determined is the degree of utilization of the winter range. It is obvious that New Brunswick is in need of a deer management plan which will correlate the maximum allowable deer population with the interests of the forest industries, and such a plan can only be drawn up after the degree of utilization of the existing winter range has been determined.

There are at present no funds available within the Department for game surveys or research, with the exception of a small grant to the Northeastern Wildlife Station, and all funds are expended on administration, law enforce-

A clear danger signal. The browse line showing plainly on white cedar even after the very mild winter of 1950-51.

ment and bounties. Under this organization there is no way that this important deer question can be properly investigated unless some of the existing policies are reviewed and brought into line with the requirements of the problem. The obvious place to start such a review is in the matter of bounty payments which have been in force for many years in the province, and are deeply entrenched as a sacred right. The idea is abhorrent to a New Brunswicker that he should not be able to collect a government cheque for each bear or bobcat, or even the lowly porcupine, that he has been able to kill. The fact that every porcupine, bear or bobcat that is seen by a man with a gun is shot or trapped automatically, and that the government subsidy is only so much additional gravy and has very little bearing on the total number killed in the year, is a point which is deliberately ignored.

It has been brought to the attention of the Committee on Forestry and

Natural Resources of the Provincial Government by the writer and by the Chairman of the Wildlife Committee of the Maritime Section of the Canadian Institute of Forestry that these large outlays on bounty payments cannot be justified on biological grounds, and that New Brunswick is apparently capable of supporting an annual kill of about 900 bears, 1,000 bobcats and 46,000 porcupines indefinitely. Over \$200,000 have been spent in the last nine years for porcupine snouts alone, and assuming that there is no fraud and all of these were genuine snouts and were taken in the province, this works out to a porcupine population of one porcupine to every 67 acres of forest, or 9.6 per square mile. Studies in Maine show that densities of 20-28 per square mile could not justify the cost of any control (Curtis, 1944), yet with densities of less than half this New Brunswick is paying about \$20,000 a year for obviously ineffective control measures.

If the object in the porcupine bounty is to protect the forest it could be argued that an over-population of deer would do more damage in one winter to the forest in the long run than all the porcupines in the country, and both are out-stripped by the damage potential of an outbreak of sawfly or budworm. It would be much more logical to pay bounties on sawflies and burworms than on porcupines for the protection of the forest.

Starvation is already taking place in moderately severe winters. This deer starved to death and is now feeding the bobcats, foxes, and ravens.

Bears are a game animal of considerable value in most parts of North America today, but complimentary licenses are given away to people to come and shoot them in New Brunswick. A bounty has been claimed on about 900 bears a year for the past 12 years, and \$89,705 has been spent in this period without any evidence of the population being reduced. In 1939 there were 123 bounties claimed and in 1950 there were 1,192 claims paid. The amount of actual damage done by bears to camps is unknown, and this is the only possible grounds on which a bounty can be justified. As it is obvious

that the bounty is not reducing the population, the argument that it is helping conserve moose calves cannot be made.

Bobcats are a natural controlling factor on deer, and in the past 20 years we have seen that the New Brunswick deer herd has risen sharply and there is reason to ask if there are not too many deer in parts of the province now. In this same period \$93,869 have been paid out in an effort to control bobcats. In 1932 claims were paid on 862 bobcats, and in 1950 the number had risen to 1,022 so that a kill of about 1,000 bobcats a year can apparently be maintained indefinitely.

These figures show that the present policy governing the expenditure of conservation funds is biologically unsound, is not achieving its purpose if this purpose is the control of the species involved, and is leading to an indefinite expenditure of public funds in a wasteful manner. When it is appreciated that over \$45,000 were expended on bounties in 1950 alone, while the Department has pleaded economy as the excuse why no technically trained game man has ever been employed, even though the hunting pressure in the province has increased 93 per cent in the last 10 years, it will be obvious that a serious review of policy is long overdue.

Forest fires have long been a serious menace to the forest economy of New Brunswick, and large sums are spent annually to combat them with every modern appliance. Yet at the same time a policy designed to reduce the beaver population is in force. Beaver ponds provide valuable sources of water for fire protection, check soil erosion by controlling flash floods which silt up the spawning beds of the very valuable Atlantic salmon, and provide an essential component of the summer range of moose by providing deadwaters in which aquatic vegetation grows. No claim for beaver damage has ever been paid in the province, although some have been moved as nuisances, yet the open season in 1950 was from April 1 - May 10, or just before the females give birth to the annual crop of young. This season has been in force for some years.

Beaver management has made spectacular advances in Quebec, Ontario, and other parts of Canada particularly as the mainstay of Indian populations, and the experience and know-how of this co-operative program between the Dominion and Provincial Departments is available to New Brunswick for the asking. The present wasteful method of cropping is implementing a policy of reduction when the direct opposite is the obvious requirement.

If New Brunswick is to avail itself of the modern advances in game management while the native stock of wild game is still capable of supporting the hunting and fishing industries, and at the same time correlate their requirements with those of the forest industries, it must make funds available to carry out the necessary research and management surveys either from existing sources by diverting them from their present ineffective use, or by providing funds from some other source. It seems most unlikely that another source can be found of comparable size, so that the diversion of existing funds from bounty payments appears the most logical solution.

The amount of money spent in the last five years on bounties could have produced among many other things, a moose and deer management plan which

would state the present status of the moose clearly so that intelligent answers would be available to the perennial question of when the moose season will be reopened, if ever, and whether or not the deer population has outstripped the carrying capacity of the range and is destroying valuable forest reproduction which is essential to the forest industries. Is the alleged recovery of the moose at long last a reality? Or is it simply a shift in range which has brought the surviving remnant out into areas where they are more often seen? Have the deer now spread to all available range in the province, or are there still some suitable areas unstocked? These and many other questions essential to a proper understanding of the forest community of New Brunswick still await an answer, and at the present rate of increase in hunting pressure, coupled with a rate of utilization of the forests by industry, these problems cannot be ignored with impunity much longer.

From the foregoing it is apparent that the present policies governing the forest wildlife resources of the province are at cross-purposes and must be reviewed and realigned before the optimum condition of utilization can be reached. If this is done the maximum yield from beaver pelts will be realized, together with the additional benefits to forest protection, salmon spawning beds, and to moose. Any necessary porcupine control on specially valuable stands can be achieved as part of the duties of the existing departmental field staff, and the money released from bounties can be used for research and management surveys in the fields of forest insects, big game and upland game birds. When the shock of the removal of the porcupine bounty has somewhat passed we might then consider whether or not we can afford to subsidize the bear trappers to the extent of \$7,500 a year, and the bobcat trappers at their current rate of \$10,000 a year, forever.

LITERATURE CITED

Curtis, James D., Appraisal of Porcupine Damage, *Journal of Wildlife Management*, Vol. 8, No. 1, January, 1944.