Flook, D.R.

Aerial survey of beaver in watersheds, of eastern and northern slopes of Riding Mountain, October 1957. [Edmonton, Canadian Wildlife Service], 1957.

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AERIAL SURVEY OF BEAVER IN WATERSHEDS OF EASTERN AND NORTHERN SLOPES OF RIDING MOUNTAIN, OCTOBER, 1957.

INTRODUCTION

The purpose of the survey was to learn where beaver might be stocked to advantage in the watersheds of the north and east slopes of Riding Mountain so as to help stabilize the run-off.

The writer made a reconnaisance on the ground in July of Bald Hill and McKinnon creeks to assess watershed conditions. As a result of observations made then it was recommended that a survey be made by aircraft to determine what creeks contain beaver colonies, what creeks contain potential beaver habitat but are devoid of beaver, and in which of the eroding creeks might the run-off be stabilized by establishing beaver colonies.

The proposed survey was approved by the Chief, Canadian Wildlife Service. It was therefore carried out October 24, 1957.

NOTES ON HISTORY OF BEAVER IN RIDING MOUNTAIN PARK

In a letter to the Director, dated February 12, 1936, J. Smart, then Park Superintendent reported that old beaver sign was abundant in the park but due to settlement, poaching, and fire, beaver had been much reduced. In 1936 he knew of only 12 colonies. One was in the Birdtail Valley near the south park boundary. The remainder were in the main body of the park east of the centre of Range 21, Township 20, 21, and 22: on Whitewater Creek, Jackfish Creek, Vermillion River, and Swanson Creek.

In early September of 1947 fourteen beaver were shipped from Waskesiu and released in the headwaters of Ochre River and in Elk Lake.

August 11, 1949 fourteen beaver shipped from Waskesiu were released in the Teepee Creek area.

In 1952 Charles Stanton of P.F.R.A. requested that 28 beaver be supplied from Prince Albert National Park for release by helicopter in Riding Mountain National Park. The beaver were trapped, but as the helicopter was not available the transfer was cancelled. The beaver were released near Waskesiu.

PROCEDURE OF CURRENT SURVEY

A Cessna 180 on wheels piloted by J. Wall was chartered from Maple Leaf Aviation, Brandon. Chief Warden J. Allan, and Warden D. Beck participated as observers.

A route was sketched on a map, following the principal creeks of the eastern and northern slopes, particularly those known to be actively eroding. The route was planned so as to follow one creek from where it left the park or where it reached level country to its source, then follow the next creek from its source to the park boundary and so on.

An attempt was made to fly the survey October 21. However snow and icing conditions forced us to turn back from the vicinity of Norgate.

October 24 the sky cleared and flying conditions were excellent throughout the survey. At the time of the survey the smaller lakes were frozen over and there was a light snow cover. That tended to make it more difficult to see beaver colonies. In the area containing creeks 1 to 10 the snow was less deep and probably no colonies were missed. On creeks 12 to 16 some colonies may have been missed as the snow was deeper.

The route flown is shown on the accompanying map. Creeks are designated by numbers, using a, b, c. etc. to designate forks in the case of branched creeks. Sites of existing beaver colonies are designated by an X. Sites in which stocking of beaver is recommended are designated by a circle.

RESULTS

Brief comments on each creek were recorded during the flight. They are presented here:

1. Upper part in small valley. Creek bordered by sedges, willows, and aspens. Flow of water is low at present. Lower part has steep gradient with a bottom of gravel and boulders. Upper part is suitable for beaver and should be stocked.

2. Present flow is slight. Lower part has steep gradient, margins of birch, aspen, and willow, and some cut banks of shale and gravel. Recommend stocking beaver in small lake at head of south fork.

3. Dead Ox Creek - From where it first becomes recognizable as a creek the gradient is steep. The bottom is boulder strewn. South facing slopes are eroding in many places. Game trails are numerous. Aspen is abundant. Recommend stocking beaver in McKinnon Lake.

4. Similar to 3. Gradient too steep for beaver to establish. No site for beaver at head.

5.(a) Lower part has steep gradient, but upper part has more gradual flow and has plenty of food available. Beaver should be stocked near the head of the creek.

5. (b) Similar to 5 a. Beaver should be stocked near head of creek.

5.(c) Bald Hill Creek - Lower part has steep gradient with eroding cut banks. Headwaters have plenty of food for beaver, and meadows which could be dammed. Recommend stocking beaver at two sites on headwaters.

5.(d) Too short and steep for beaver.

5.(e) Upper part is too steep in gradient for beaver but lower part meanders through level area with aspen margins. Recommend stocking beaver about 1 mile above park boundary.

6.(a) Suitable site for beaver at head but rest of creek is too steep and stony. Recommend stocking beaver at head.

6.(b) McKinnon Creek - One colony of beaver on a snye off the creek near Warden Station. No good sites for beaver stocking on creek itself. Lower part too steep, and upper part doesn't contain enough water for beaver to start. However, a small pothole just north of the head of the creek would be a suitable site to start beaver and it should be stocked.

7. - Scott Creek - Upper part of the creek doesn't have enough water to stock beaver and lower part is too steep and stony. Tea lake empties into both the Whirlpool River system and Scott Creek. It is suitable for beaver and should be stocked. Beaver might gradually move from the lake down Scott Creek building dams.

In flying from Scott Creek to Henderson Creek one beaver colony was observed on a series of sloughs south of Henderson Creek Warden Station.

8. (a) - South Fork of Henderson Creek - Lower part of creek is steep and boulder strewn. Lake at head of creek is suitable for beaver and should be stocked.

8. (b) - West fork of Henderson Creek - Head of creek appears to be fair beaver habitat and should be stocked. Remainder of creek is too steep and stony for beaver.

9. (a) - East fork of Ochre River - Active colony of beaver in Boviert Lake. Fair beaver habitat in upper parts of creek. No need to stock more beaver.

9. (b) - Fork of Ochre River - Active beaver colony in creek about one quarter mile east of Elk Lake. Downstream from Elk Lake the creek is stony but has some favourable sites for beaver. No need to stock more beaver.

9. (c) - Fork of Ochre River - Upper part of creek is good beaver habitat. Active colony in small lake north of lake at mile 142½. No need to stock more beaver.

9. (d) - Lower part of creek is too steep and stony for beaver. Upper part more gradual but very little water for stocking beaver. Lake on headwaters provides beaver habitat and should be stocked.

10. - Crawford Creek - Lower part of creek is too steep in gradient for beaver. Active colony holding back a large pond on small tributary south of creek. Upper part of creek provides suitable habitat. There are two sedge ponds which may be old beaver ponds. Beaver should be stocked near head.

11. Edwards Creek - Active colony east of highway below Edwards Lake. Lower part of creek is too steep for beaver.

12. Upper part of creek is slow and meandering. No colonies seen. Snow cover may have obscured them. Lower part of creek is steep with gravel and boulder bottom.

13. Kennis Creek - Seven active beaver colonies seen.

14. West fork of Vermillion River - Four active beaver colonies seen, one on a small tributary to the west. Lower part of creek is steep and stony, and eroding. Upper part meandering and slow.

15. Tributary of Wilson River - Three beaver colonies seen, two on small tributary creeks.

16. Two beaver colonies seen. Circled area which was burned this summer.

BIG GAME OBSERVATIONS

Searching for sign of beaver and appraising habitat conditions required full attention. For this reason and because of difficulty in observing animals at this time of year, big game observations were few. Fourteen moose and ten elk were seen. Nine of the moose were in the vicinity of Round Lake, Campbell Lake, and Rowland Lake in the southeast corner of the park and the remaining five were on Edwards Creek. Of the elk seen, one was on Campbell Lake, two on creek 9 d, six on Edwards Creek, and one on creek 13.

DISCUSSION

Of 27 creeks or creek tributaries surveyed, 11 contained active beaver colonies.

A total of 24 beaver colonies were seen in the survey.

The creeks of the north slope contain more beaver than those of the east slope. This is partly due to the fact that the area contains more suitable sites for beaver. It is probably also partly due to the fact that a nucleus of beaver were preserved there in the 1930's when beaver disappeared in other parts of the park. From that nucleus beaver dispersed until now the central part of the park is moderately stocked with beaver.

RECOMMENDATIONS

It is recommended that beaver be stocked in sixteen sites on creek systems draining the east slope of Riding Mountain. The sites are indicated by circles on the attached map.

Beaver should be preserved throughout the Riding Mountain Park. By stabilizing the run-off they tend to reduce the fire hazard. They also increase the value of the park as a stable source of water supply for the surrounding plains country.

Their important place as a member of the native fauna and their aesthetic value are obvious.

It may be necessary from time to time to dispose of beaver which dam culverts, flood roads etc. Until the park becomes much more heavily stocked with beaver, nuisance beaver should be live-trapped and moved to other sites, preferably those on the east slope.

The beaver for stocking in the 16 sites proposed can best be obtained from Prince Albert National Park. Due to the heavy beaver population there, they can be most conveniently and economically trapped there. Experience has shown that very early summer or very late summer are the best periods for live-trapping beaver. Therefore the live-trapping can best be done in Prince Albert National Park in late August and early September. The beaver can be trucked to Wasagaming from where they can be distributed by four-wheel drive vehicle, team and wagon, and perhaps in a few cases pack horses.

The student working in the beaver study with the Canadian Wildlife Service in Prince Albert National Park should be available to help with certain phases of the beaver transfer.

Each site should be stocked with at least one pair of beaver two years old or older. Sites which seem to offer especially favourable conditions from a standpoint of beaver establishment and watershed improvement are as follows: the two sites at the head of 5c, Tea Lake, 8a, 9f, and 10.

If sufficient beaver are available to stock more than a pair of beaver in some sites, those locations should receive priority. It should be attempted to obtain 45 or 50 beaver for the transfer.

Donald R. Flook,
Wildlife Biologist.

Jasper, Alta.,
December 7, 1957.

CWS

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