

Beaver studies, fall, 1978 by Philip C. Shelton

During the week of 15-21 October 1978, Philip C. Shelton did an aerial survey of beaver colonies, live-trapped four colonies, and visited several colonies on the ground. The aerial count took 14 hours flying time on Oct. 16-19. Fred Stroble, of Shawano Flying Service, Shawano, Wisconsin flew the float-equipped Piper Super Cub. Funds for the aircraft were provided by the National Park Service.

Ground work included parts of three days spent inspecting colony sites on foot or by boat, and a total of 24 trap nights with Hancock live-traps at two colonies on Tobin Creek and two in Rock Harbor. Thirteen beavers were caught, including one on Tobin Creek that had been caught at the same location as a yearling in 1974.

The aerial count revealed 129 active sites determined by the presence of a food pile, and 27 additional sites had fresh cutting, or fresh mud on the house or dam, indicating the presence of at least one beaver. The count was made under good conditions, and intensive recounting of selected areas after initially covering the entire island indicated that few active sites had been missed on the first count.

This count indicates a decline of 50-55 percent from the count made in 1974, when 286 colonies with food piles and 30 with other fresh sign were tallied.

The reduction was greater for stream beavers than for harbor or inland lake dwellers, although the total number of beavers in these habitats was comparatively small. In 1974 there were 11 colonies known in harbors, and 26 on inland lakes. Comparable 1978 figures were 11 on harbors and 19 on inland lakes.

Fluctuations in beaver numbers in the past have been thought to be more drastic inland than on harbors. The decline in the 1950s was thought to be a result of tularemia, which would have been more easily spread among stream dwelling beavers than those living on larger bodies of water (Shelton, in press: Proceedings of the First Conference on Scientific Research in the National Parks).

There was no indication in 1978 that beavers suffered any physical or pathological abnormalities that could account for their decline in numbers. Twelve of the 13 beavers handled were systematically combed on the rump and hips for parasites. Beetles, tentatively identified as Leptinillus validus Horn, were found on six of these 12 beavers (three had one, one each had three, five, and eight beetles). Unfortunately, quantitative data were not obtained in former years. No beetles were found on the 223 beavers handled in 1961-63, but beetles were found on four of 63 beavers handled in 1974. In neither of these periods were systematic searches made for parasites. It is therefore believed that the findings in 1974 represented a real increase in incidence of the parasites. But the occurrence of parasites on half of the 1978 sample cannot be construed to indicate a further increase in parasite load since 1974.

- Taken from 1978/79 Wolf moose report

Food supplies for beavers have been declining steadily for at least 35 years, as aspen and birch dating from fires of the last century or more have been cut back farther and farther from water at long established sites. However, there is no evidence that a food supply crisis is the direct cause of the latest decline in beavers. There remain considerable supplies of both aspen and birch within foraging distance of many ponds. Birch is seldom cut back more than a few meters from water, and at least one site was observed in 1978 where aspens had been cut close enough to fall into a pond.

With beaver feeding distances slowly increasing, and the wolf population remaining high, vulnerability of beavers to wolf predation has no doubt been high during the last four years. A region-wide drought in 1976 may have increased the vulnerability of beaver to wolf predation, and wolf scat data (Table 4) suggest that wolf reliance on beaver may have increased during the late 1970s. Since removal of either adult from an established colony may disrupt the unit and scatter surviving individuals, the effects on numbers of animals may not be as severe as is apparent from the count of colonies with visible food piles. That the number of sites observed with fresh sign, but no food pile, remained nearly the same from 1974(30) to 1978(27) may be a manifestation of such disrupted colonies, which now comprise a higher proportion of the total sites.