

Beaver studies, fall, 1980 by Philip C. Shelton

During the period 14-24 October 1980, Philip C. Shelton surveyed beaver colonies by air and ground and attempted to live-trap three colonies. Fred Stroble of Shawano Flying Service, Shawano, Wisconsin, flew the float-equipped Super Cub for the aerial count, as he did in 1978. Weather was favorable for efficient counting during most of the 12 hours flying time, 20-22 October, when the count was made. Funds for the aerial survey were provided by the National Park Service.

Results of the aerial count and those of 1974 and 1978 follow:

	<u>1974</u>	<u>1978</u>	<u>1980</u>
Colonies with food piles:			
Streams	249	.99	58
Lakes	26	19	17
Harbors	11	11	8
Total	286	129	83
Sites with fresh cutting or fresh mud on house or dam.	30	27	39
Total sites with any signs of activity	316	156	122

Live-trapping was largely unsuccessful. In 26 trap-nights at three colonies only two beavers were caught, an adult male on upper Tobin Creek, and an adult female at Baker Point. Nothing was caught in 14 trap nights at a second Tobin Creek site which had a fresh house and small food pile. The two beavers handled showed no abnormalities. Parasitic beetles, were found on both, the male one, and the female more than 10 with similar amounts of combing effort expended on the rump and hips of both. Neither of these beavers was tagged, but a tagged beaver was seen at the Tobin Creek colony where the male was captured. This animal was at least six years old, for no beavers have been tagged since 1974.

The decline in numbers of colonies with food piles was essentially linear from 1974 through 1980. As noted in 1978, the decline was most noticeable in stream colonies; lake and harbor colonies declined less steeply, but the small number of these preclude meaningful conclusions. Lake and harbor animals may be less vulnerable to wolf predation, or to spread of diseases. The increased number and proportion of sites with no visible food pile, but with fresh cutting or fresh mud on house or dam may indicate fragmentation of colonies resulting from predation. Lack of success in trapping might indicate a reduction in numbers of animals per colony, at least for the Tobin Creek area, but much more intensive trapping would be required to verify this possibility.

Beaver food supplies have declined since at least the late 1940's, but birch and hazel stands still occur within a few meters of many ponds, and aspen is still available at several sites. Food depletion appears to be most severe at harbor sites, which, as noted above, have declined less rapidly than stream sites. Cutting by high beaver populations of the mid-1960's through the mid-1970's no doubt significantly increased foraging distances, making vulnerability to wolf predation high, and the continued decline in beaver numbers was expected, in view of high wolf numbers through 1980.