

TRUMPETER SWANS

By Daniel Timm and Laurie Wojcek



“Hiline Lake; 45 minutes flying time from Anchorage; 26 acres with 1,025 ft. of lake frontage; large trees; no marsh; beautiful building sites; good subdivision potential.”

THIS AD, in a recent edition of the *Anchorage Times*, typifies the boom in recreational site development which has occurred in parts of Alaska—creating new conflicts between man and nature. Among these potential conflicts is the apparent effect of new cabin sites on Alaska's numerous trumpeter swans.

After flying a statewide trumpeter swan survey in 1975, James A. King of the U.S. Fish and Wildlife Service said “In the Cook Inlet area disturbance from recreational cabin building may be a problem. Adjacent to the road system there are cheek-to-cheek cabins around all major lakes and no swans were seen on any of these lakes. Throughout the rest of the Cook Inlet area every lake large enough to land a float plane has one or more cabins, most built in the last ten years since the State selected these lands. A few swans were seen on lakes with cabins; however, this was the exception and numbers of lakes with good-looking swan habitat, some of which had swans in 1968, are now swanless.”

Trumpeter swans were first noted in Alaska in the 1850's. However, it wasn't until 1955 that it was learned they nested in our State. In fact, over 80 per cent of all trumpeter swans in the world live in Alaska during the summer.

Trumpeter swan populations south of Alaska reached very low numbers during the 1930's and until 1968 they were classified as rare and endangered. Personnel of the U.S. Fish and Wildlife Service counted nearly 3,000 trumpeters in Alaska ten years ago and, in 1975, a more comprehensive survey revealed about 4,200 birds. The growth rate of Alaska's trumpeter population is about three per cent a year. Although the swans are presently enjoying prosperity, the long-term outlook is not as good. Wild swans are very sensitive to human disturbance. In Alaska, it appears that people/swan conflicts will increase in the years to come. One way in which conflicts will be increased is continued recreational cabin building in trumpeter swan habitat. In 1978 the Alaska Department of Fish and Game studied this aspect of human disturbance. Results were pre-

sented at the Sixth Trumpeter Swan Society Conference held in Anchorage in September 1978. The Society is an international group of people dedicated to the welfare of swans. Their interest in Alaska is particularly keen and relevant because of the large trumpeter swan population in our State.

The Department study was centered in the Susitna Basin west and north of Cook Inlet and bounded by Redoubt Bay on the south, the Alaska Mountain Range on the west and north and the Talkeetna Mountain Range and Cook Inlet on the east. The Basin is a composite topography covered by spruce, birch and aspen; lakes and muskeg-covered lowlands abound as do large coastal river deltas and river valleys beginning in this region at glaciers and ending at salt water. However, the combination of warm, dry summers and numerous large lakes make it a summer playground for residents of the Anchorage area where over half of all Alaskans live.

For the Department's investigations, it was necessary to know the locations of both swans and cabins observed in the 1968 and 1975 surveys so that an evaluation of the present swan distribution and any change from that of the past could be made. Department biologists hoped to better understand the implications of any future cabin sites on swan populations.

Recorded locations of swans were paired with land status records in an attempt to learn the number of swans seen, the number and age of cabins, the distance between swans and cabins, and the presence and age of roads or other developments in the area. Records from the past were not always completely satisfactory, so we flew aerial surveys in 1978 to add to our collection of data; at that time we subjectively judged whether float planes could operate on the lakes where swans were seen. During the aerial survey cabins were recorded if they occurred up to two miles from swans.

After a careful analysis of data a general trend could be seen. The number of cabins in a specific area had a marked effect on the rate at which swans would return to that area (see table). Depending on the number of cabins present, there were from 43 per cent to 93 per cent fewer swans present than in areas without cabins. Individual situations varied, but it was apparent that the amount of human disturbance associated with two cabins generally was not sufficient to displace swans. However, the presence



of three or more cabins quickly made the area unacceptable to birds.

Swans continue to enjoy prosperity in Alaska in spite of an increase in cabins of 257 per cent over the past ten years; luckily, even one-half mile of muskeg or dense spruce forest presents a formidable obstacle to human travel during summer months so many lakes remain little-visited by humans. Swans presently concentrate on lakes not yet having three or more cabins directly on the lake.

It is inevitable that the Susitna Basin trumpeter swan population, as well as other expanding swan populations across Alaska, will eventually reach levels limited to a large extent by human disturbance. At that point each successive expansion of permanent human disturbance will reduce the number of

trumpeter swans in Alaska. New roads, new power lines, new communities and perhaps thousands of new cabins will be built within swan habitat. Alaskans are demanding and the future will bring more land into private ownership. Fortunately, trumpeter swans prefer habitat that has less appeal for humans: mosquito-infested, swampy areas with limited building sites. Perhaps swans will be able to maintain their present abundance in these areas.

We believe there will be trumpeter swans in Alaska ten, a hundred and even a thousand years from today. Whether there will be more or fewer trumpeters will depend on the dynamic balance struck between people's economic, political, social and environmental needs and attitudes. Our challenge will be to use knowledge such as that presented here to temper the actions of those who have little regard for nature or the understanding of its complexities. We must work to insure that such a balance is truly achieved in the future.

No. Of Cabins Present	Re-use Of Swan Use Areas	Ave. No. Adult Swans Per Use Area
1-2	48%	1.3
3-5	36%	0.5
6+	8%	0.15
Average	30%	0.95
No Cabins Present	50%	2.3

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NOV/DEC 1978

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