

tected. The natural structure is usually a huge, often half-floating "haycock" of dry tule stems. Taking his cue from the birds, Archie Hull had truckloads of tules dumped at favourable locations on the ice. With its melting the tule mounds became partially submerged. Whether or not suggestion plays a part in swan psychology, the results have been unusually satisfactory.

"From the time the ice leaves the lakes until the first of August, when the young birds are fairly grown," reported Mr. Hull to the Survey, "I do not permit anyone to venture on the lakes where the swans nest. I do not go on the nesting ground myself, fearing the sun's rays may injure the embryo within the uncovered eggs; also for fear that an overcast sky or storm may chill them before the swans return to the nest. I am sure nothing gladdens our hearts more than to know that the trumpeter swans here are at least holding their own."

"The voice of the trumpeter swan has a horn-like quality, very low in key," says Allan Brooks. "When a flock is passing overhead, the calls do not seem to be particularly loud, but long after, from miles away, the low resonant trumpet comes back clear and insistent. I do not think the clear whistling shout of the whistling swan will carry half the distance."

"They presented the most impressive spectacle in bird life ever seen in North America," stated Edward H. Forbush, describing avian migration. Above all the lesser migrant waterfowl, "higher still in the glowing firmament rode the long 'baseless triangles' of the swans, sweeping across the upper air in the exalted and unswerving flight, spanning a continent with the speed of the wind, their forms glistening like silver in the sunset glow."

With a lineage older than ours, with a beauty unrivalled by that of almost any other living form, the trumpeter's right to exist is inherently as fully justified as our own. Collectively we are doing all that administration, science, and alert technology can do to perpetuate their race. But as individuals, will our respect for wildlife and our self-restraint be such that success will reward these efforts?

It is definitely known that during one hunt-

ing season prior to the creation of the refuge several swans were killed either by design, or because they were confused with snow geese, the excuse commonly given by hunters.

The outstanding fact remains, however, that in 1938, despite the addition of fifty-five young, the total number of this species in the United States fell from 158 to 148. Wildlife counts cannot be entirely accurate but they afford a close index. Without doubt a vitally important percentage of the pitifully few remaining are killed each year by persons ignorant of the identity of the birds or wantonly disregardful of the situation. So long as there continues to be an open season on snow geese in this comparatively small area, that fact will serve as an escape, or at least as a mitigating circumstance, in the case of those guilty of the destruction of swans. The position of this elegant species is too precarious to warrant delay. Education is needed, but education is lamentably slow—too slow.

A great effort and a great expenditure are being made in the development of the refuge programme. The success of what would unquestionably be one of its crowning accomplishments must not be jeopardized by irresponsible persons. Any one with the slightest appreciation of the values involved might reasonably be expected to refrain from any act that might possibly bring danger to the species. Unfortunately this is not the case. It is therefore the considered opinion of this writer that a closed season upon snow geese should be declared by the proper agencies throughout the Red Rock—Henry Lake—Yellowstone area, and that it should be kept in force there over whatever length of time may be required for the swans to pass this most critical stage in their recovery.

It is not the "swan song," the death-song of the trumpeters, that we would hear, it is those living, far-carrying voices from the skyways to which we would listen. When their mighty snow-white pinions again go winging down the flyways of America, when their trumpet voices come back to us again long after their passing, we shall realize more fully than now that none could replace them. When once more we behold them, traversing like angel squadrons the vast, uppermost lanes of the sky, we shall know how empty that blue vault would have been without them. Let us resolve that Red Rock and their few other last refuges shall not be merely the scenes of a final tarrying, but truly the road of their glorious return.

HEADQUARTERS, RED ROCK. Note Observation Tower.

[Photo, "Nature Magazine."]

