

figures and tables would be of greater value if they were serially numbered or lettered to permit easy reference in the text.

The author's views regarding the abundance of Whooping Cranes are very interesting. On page 85 he states, "A 'myth of superabundance' has clouded the true facts and may stem from a misinterpretation of some of the early writings on the status of the species. Actually, there is evidence that the Whooping Crane was never observed in large numbers, even one hundred or more years ago." He then points out that the population as of 1869 probably numbered only 1300 birds. According to his calculations we can hope for an increase of only four Whooping Cranes in the next ten years, provided the rate of increase during that period equals that for the years 1940-1949.

A detailed knowledge and understanding of the life-history and ecology of any species is of utmost importance in its successful management. This is especially true in the case of the Whooping Crane, where even a minor error might have disastrous results. The author has taken this into consideration in presenting his suggestions regarding the future management of the Whooping Crane. His recommendations include enlargement of the Aransas Refuge in Texas, minor improvements at the Aransas Refuge to insure further the safety of the wintering birds, development of a refuge on the Platte River in Nebraska, education of the public, and further study.

Some readers will feel that Allen has avoided discussing the issue of placing the remaining Whooping Cranes in captivity in the hope that they might reproduce there satisfactorily. Until further information is accumulated regarding the breeding behavior of these birds, it seems to me that Allen's cautious approach is safest.—Thane S. Robinson.

VOYAGEUR'S COUNTRY: THE STORY OF THE QUETICO-SUPERIOR COUNTRY

*A contribution from the Wilson Ornithological Club
Conservation Committee*

Grand Portage, that mountainous carry from Lake Superior around the rapids of the Pigeon River to Fort Charlotte, was nine miles of as tortured packing as there was on the continent. Even in the old days, it was something to boast about. To say, "I made Grand Portage" set a man apart. The French voyageurs judged a man by the way he took that trail, for two ninety-pound packets was the normal load and no Coureur du Bois who could not take the punishment was worthy of the name. Some men carried bigger loads and bragged of their feats around the campfires of the Voyageur's Highway for years afterward.

Today modern voyageurs again strain sinews in the country of the fur trading days, cruise thousands of miles along the delightful waterways of the international border between Lake of the Woods and Lake Superior. Like the Indians and voyageurs, they too love this country for the beauty of its lakes, its clean glaciated rocks, its tree-lined portages, and fascinating vistas. Primitive maps with great blank spaces are no more. Now there are excellent aerial photographs so accurate that every stream and pond is clearly shown.

Times have changed in the canoe country, but the spirit of exploration and adventure is still there. In spite of logging and fires and exploitation in some parts of it, the area is still surpassingly beautiful and much of it unchanged. There are still the sounds of the wilderness, the wild calling of the loons, the slap of a beaver's tail at dusk. The

White-throated Sparrow still utters its long plaintive notes and the Hermit Thrush makes violin music until dark has settled down. Eagles still soar and scream high above the ridges and back in the pines the Pileated Woodpecker hammers away at old dead snags.

At night the new explorers sit around their fires knowing that the spirits of the men of old are with them. It is still voyageur country, the country of Radisson and Groseilliers, Alexander McKenzie, Verendrye, and a host of others.

The effort to preserve this historic area began forty years ago when W. A. Preston, member of Parliament from Rainy Lake, watched with misgivings the illegal poaching of moose by hunters from the American side of the border. It was he who first conceived the idea of giving protection to the unusual area. Largely through his efforts, Quetico Provincial Park was established in 1909. Shortly afterward, President Theodore Roosevelt created the Superior National Forest directly to the south of the border and adjacent to the Quetico. It was recognized even then that these two areas, a fifth of the Rainy Lake watershed, were a geographical and historic unit even though divided by the International Boundary.

The creation of these two forest preserves gave the entire watershed its present name, "The Quetico-Superior Country." Since that time, there has been a constant effort especially on the American side to keep the Roadless Areas of the Superior National Forest free from the types of exploitation that threatened its uniqueness. The long effort is a remarkable story of the loyalty and devotion of thousands of public-spirited people on both sides of the border, people who realized that here was not only a great economic resource but a spiritual one as well.

When in the early 1920s, roads were proposed into the heart of the Superior National Forest, conservation groups fought them and finally won. As a result the United States Forest Service planned a roadless area of a million acres free from such developments for all time.

In 1925, a proposal was made to create a gigantic power reservoir along the border by building seven dams impounding some of the waters as high as eighty feet. Whole river systems would have been flooded, countless islands, campsites and beaches submerged, thousands of miles of shoreline changed into a morass of dead snags and stagnant water. Arthur Hawkes, newspaperman from Winnipeg and Toronto, was determined that this should not be done. Together with such men as Ernest Oberholtzer of Ranier, Fred Winston, Charles Kelly, and Frank Hubachek, of Minneapolis, they organized Canadian and American support, told the story of the Quetico-Superior to all who would listen. As a direct result of their work, an organization was created known as the Quetico-Superior Council which proposed a long range plan of management based on sound policies of balanced use for all the resources of the area which would perpetuate rather than destroy them. It also proposed a program of land zoning which would preserve the rare wilderness values of the interior lake regions. This plan is now known as the Quetico-Superior Program.

The Canadian and American Legions, aware of the constant threats which faced the area, endorsed this proposal in 1929 and suggested further that the international forest, should it come into being, be dedicated to the war veterans of Canada and the United States who served in World War I.

It was then that the dream of a living memorial was born. This would be different than anything ever proposed, not just another stereotyped monument of concrete and steel, but a wilderness playground dedicated to the youth of the future. Here was something alive and real that would bring happiness to generations, a symbol of the meaning

of freedom itself and the international unity of purpose that had come out of the great conflict.

In 1931, the Congress of the United States passed a law, the Shipstead-Nolan Act, which gave protection to the shorelines of federal lands from logging or flooding on the Minnesota side of the border. The State Legislature followed with a similar law in 1933 giving similar protection to the state lands within the area.

In 1934, President Franklin D. Roosevelt, aware of the great interest in the area and its preservation, appointed the first President's Quetico-Superior Committee to work toward the realization of the program as proposed earlier by the Council, the adoption of sound policies of resource use and the eventual dedication of an International Peace Memorial Forest.

The same year, after nine years of deliberation, the International Joint Commission denied the long pending application for power development. Lawrence Burpee, Canadian historian, then Secretary of the Commission, advised both governments at that time that nothing should ever be allowed to interfere with the broad policies of management as outlined in the Quetico-Superior Program.

After this period, the United States Forest Service began acquiring private lands within the Superior National Forest. To date through this acquisition program and in many other ways the United States government has evidenced its determination to carry this program to completion. In 1948, the Thyé-Blatnik Bill authorized an additional half-million dollars specifically to purchase private holdings within the Roadless Areas. At the present time almost 95% of the private lands and developments within the wilderness canoe country have been purchased. Remaining are several camps within the canoe country proper, some private cabins and choice lake properties. Negotiations toward the purchase of such holdings are going forward as rapidly as possible. The Izaak Walton League has contributed over \$100,000 during the past eight years toward this program.

The most recent effort to preserve the canoe country was precipitated by the unrestricted use of airplanes to service resorts and to bring fishing parties to the interior. Not only were seaplanes based locally, but they came from neighboring states in ever-increasing numbers. Air traffic became so great that the Forest Service, with the backing of the President's Quetico-Superior Committee, conservation groups, and civic organizations, urged the establishment by Executive Order of an Air Space Reservation over the Roadless Areas of the Superior. President Truman signed the order in December of 1949 and a two year moratorium was given to resorts and flyers before the order went into effect.

On January 1st of 1952, the opponents of the Air Space Reservation announced that they would violate the Executive Order and bring the matter to court. This was done and the defendants appeared before Federal District Court in Duluth. In September, 1952, Judge Gunnar Nordbye rendered his historic decision in which he held that the preservation of the wilderness character of the Roadless Areas was a long established governmental purpose and that the President had the power to issue the order concerned.

Canada has banned from Quetico Provincial Park commercial aircraft flights originating on the American side of the border and it is the hope that eventually other wilderness canoe regions of the watershed will receive similar protection. Both Canada and the United States have seen what unrestricted airplane use can mean to the wilderness character of the interior lakes.

The flyers appealed to a higher court and a hearing was held in St. Louis on March 13, 1953. Pending a decision by the Circuit Court of Appeals, affected resorts will

be allowed air transportation to service their caretakers and to protect their properties, but no commercial use will be permitted. While the flyers and the resorts employing them may carry their fight to the Supreme Court, the Government is confident of ultimate victory.

The utmost vigilance is necessary to preserve this area from continued attacks. Within the past few months a deliberate effort has been made to nullify the gains of the past twenty-five years by proposing that the Forest Service eliminate the 360,000 acres set aside as a No-Cut Area to preserve the last stands of virgin timber along the border, that the land exchange program of the federal government be ended, that the Air Space Reservation be severely modified, that a special use permit be granted for a hydro-electric line into the Roadless Area.

Those who see in the Quetico-Superior Region and its incomparable wilderness interior only an opportunity to exploit its resources, have even suggested recently a modification of the Shipstead-Nolan Law which will permit power development as well as cutting of shorelines.

Until there is an international agreement on wise management and zoning principles for the area, such threats will continue. While the President's Committee, cooperating with the Canadian Quetico-Superior Committee is trying to bring the program to a successful conclusion through study, education, and research, individuals who feel deeply about the region can also contribute much.

During the effort to secure the Air Space Reservation, it was such devoted organizations as the Izaak Walton League, Friends of the Wilderness, Chambers of Commerce, Garden Clubs, Legion Posts, the Ely Rod and Gun Club, Farm Bureaus, and other community organizations which made it possible. The cooperation of such men as Chester S. Wilson, Commissioner of Conservation for Minnesota, Frank Robertson who showed the film "Wilderness Canoe Country" over 500 times, William Magie with his news releases, many of the men of the U. S. Forest Service, and others too numerous to mention, turned the tide.

And so it will be in all future efforts to preserve the area. People who feel deeply that the Quetico-Superior and its wilderness canoe country core is a national heritage worth protecting at all costs, can through their organizations as well as their individual efforts help in achieving the ultimate goal, the establishment of the International Peace Memorial Forest.—SIGURD F. OLSON, *Wilderness Ecologist, Izaak Walton League of America.*

THE SCIENTIFIC VALUE OF A GROUP COLLECTION OF LIVE ANIMALS

BY KONRAD Z. LORENZ

This article is reprinted here, with a few minor changes, from The Fourth Annual Report of the Severn Wildfowl Trust, 1950-1951, with the permission of the author and of the Director of the Trust. In these times when "taxonomy" is often misconstrued by well-intentioned but poorly informed persons, these words of a scientist who has attained singular eminence in the apparently quite different field of animal behavior support and explain progressive systematics very effectively.—Eds.

All biological science has begun its career with *collecting*, and it is worthy of psychological consideration that nearly all really successful biologists have, in their own lives, gone through a period in which they repeated, individually, the history of their science.