

Wetland wastage

P. J. S. Olney

FOR centuries man has been engaged in altering his environment and in particular those areas known as wetlands which can be drained or used merely as dumping grounds for waste products. As our population grows and the more materialistic approach to life advances, so the number of wetlands left, and especially those in the Northern Hemisphere, rapidly declines. Wetlands, which can be defined as those areas which are covered with shallow and sometimes temporary water, are particularly vulnerable to man's deliberate modifications. The belief that marshes and other wetland habitats are only wastelands is widespread, and little account has been taken of any values that the marsh may have in its natural state. There is a danger that this type of habitat may disappear altogether if the rate of exploitation goes on at the pace it has now.

A meeting sponsored by three international bodies, to discuss the problems involved in wetland conservation and management, was held in November 1962 at Saintes-Maries-de-la-Mer in the Camargue in the south of France. This was a most appropriate place in which to hold such a meeting, for the Camargue as part of the Rhone delta is one of the most famous large wetland areas left in Europe. An area of great intrinsic beauty, it is a place of inspiration for poets and painters, sun-worshippers and scientists, and has many problems of conservation and management. The importance of the conference was emphasised by the fact that over 80 delegates from at least 16 different countries attended, including 16 representatives from Great Britain. Most of the international and national conservation organisations were represented and in many cases by their chief officers—the Wildfowl Trust being represented by Peter Scott, Dr. G. V. T. Matthews and P. J. S. Olney. Much of the success of this conference was due to the untiring and efficient organisation of Dr. Lukas Hoffmann, Honorary Director of the Station Biologique de la Tour du Valat, and to the hospitality of Dr. Hoffmann and his wife.

The conference had three main purposes—to publicise the scientific, economic and moral importance of wetlands, to assemble and to reduce to a convenient form technical material which would then be available to all those concerned with the conservation of wetlands, and to compile a thoroughly documented list of wetland areas the conservation of which is of international importance. Some 50 papers were submitted by experts from Europe and North America and formed the basis of often lengthy and energetic, but rewarding discussion. Papers from the Wildfowl Trust included: "The development of a national plan for wildfowl refuges in Great Britain" and "The role of reservoirs in wildfowl conservation" by G. L. Atkinson-Willes, "Wildfowl and agriculture in Britain" by Janet Kear, "Artificial restoration of wildfowl populations" by H. Boyd and "Gravel pits as waterfowl reserves" by P. J. S. Olney.

It was emphasised by a number of speakers, and underlined by Peter Scott in his introductory remarks, that wetlands should be evaluated, and not necessarily always in terms of money, for their aesthetic qualities as well as their economic and scientific values. It was pointed out that we have a duty to leave alone areas of natural habitat where our descendants can see and appreciate the inherent splendour and interest of the landscape and of the animals and plants that live therein.

Attention was drawn to cases of ill-conceived drainage schemes, many of which have been abandoned after much money has been wasted and irredeemable damage has been done to the habitat and consequently to the animal and plant life of the area. The classic example is the well-documented case of Lake Hornborgasjön in central Sweden. For thousands of years it had been a shallow lake some 10 square miles in area, with a luxurious vegetation and a rich fauna. Attempts to drain it in 1803, 1850 and 1870 incurred "grave financial losses", and yet in 1903 another drainage scheme was begun with the promise of a farming profit of nearly 200 per cent. During 1932-35 a further lowering of the water-level took place. Today, after the equivalent of nearly £600,000 has been spent in draining this shallow lake, it is still no more than a marsh. The gross profits from the first 25 years of operation amount to only one tenth of the capital investment. Even now the costs of maintenance are likely to be more than the agriculture profit. This disastrous piece of stubbornness has resulted in the loss of extensive fishing (which alone was equivalent to the expected agriculture profit), the loss of water power valued at £130,000, the loss of important wildfowl shooting resources, and not least the loss of the lake as an object of scientific research and general education. Possibly, this case is exceptional as an example of prolonged monomania, but there are many other instances of drainage projects which have been left unfinished with much money—often from public sources—forfeited and the loss of valuable habitat.

In America the abandoned drainage scheme for the 30,000 acre Mattamuskeet lake in North Carolina had the happy result of the whole area of 50,000 acres being bought by the United States Government and a National Wildlife Refuge being established. This was however only after twenty years of misguided plans and millions of wasted dollars. Now the area is one of the most important wildfowl refuges in the United States and annually attracts many thousands of visitors, both human and avian.

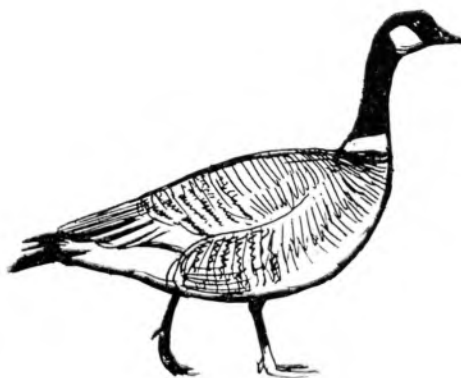
In Great Britain where the wetlands are comparatively small, there have been no failures of such magnitude, yet this does not mean we should be any less diligent in trying to preserve at least part of this vital type of habitat.

There are indications that some authorities are beginning to realise that wetlands may have more value by being left undrained. The Dutch Government, for instance, has recently decided to stop subsidising the reclamation of the few remaining inland marshes and peatfields. This may have been partly because there were at that time 10,000 tons of butter and cheese awaiting buyers but also because it is now appreciated that the remaining wetlands have a potentially high value for reed growing, fishing and shooting rents and for other recreational activities.

The conference closed with a number of recommendations being adopted. These included the recommendation that the International Union for the Conservation of Nature (I.U.C.N.) should compile a list of all European and North African wetlands of international importance which would be available for governments and all interested organisations; that I.U.C.N. should publish a leaflet in which the educational, scientific, cultural, economic and recreational values of wetlands would be explained; that I.U.C.N. should also publish a brief guide to the basic legal procedures and administrative methods used in setting up and managing reserves, and also a guide to the technical management of such reserves. The conference also recommended that governments and other

bodies responsible for the drainage of wetlands should consider the values of wetlands, both tangible and intangible, before carrying out such projects.

It is hoped that this conference will help initiate a number of projects which will cause governmental and other bodies who are responsible for wetlands, to realise that at least some of our wetlands must be preserved for posterity. Like so many things, our marshes and fens will not be missed until they are gone—and then it will be too late.



Buldir Island, site of a remnant breeding population of Aleutian Canada Geese

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Summary

RECENT observations of the once abundant Aleutian Canada Goose *Branta canadensis leucopareia* are reviewed. The introduction of Blue Foxes to the breeding grounds and increased hunting pressure are suggested as reasons for the decline of the race, with a note concerning the production potential of the Blue Fox. An expedition to Buldir Island, where no fox introduction had been made, is recounted along with a discussion of the island's topography, climate, avian and mammalian populations. Reestablishment of the Sea Otter at Buldir Island is noted. A breeding population of *B.c. leucopareia* was observed and the conditions of the habitat are discussed.

Ancestrally, a large population of a subspecies of small Canada Goose bred in the Aleutian Islands from about Yunaska Island at 52° 40' N and 170° 40' W to and including the islets off Attu, the westernmost of the Archipelago (Nelson, 1883; Turner, 1886; Murie, 1959). This sub-species has been designated by Delacour (1954) as the Aleutian Canada Goose *Branta canadensis leucopareia* (Brandt). Clark (1910) described the bird as abundant on Agattu, but Murie (1959, p. 67), in his account of observations made in 1936 and 1937, states that, "... they had disappeared on most of the islands, and our total observations indicated that only a few pairs remained in the Aleutians." Recent observations support this gloomy view.