

## Summary

For an annual fee, interested members of the public may become Swan Supporters, enabling them to receive information about *Cygnus columbianus bewickii* wintering at reserves of the Wildfowl Trust in the UK and to visit the wintering sites. The paper describes the scheme and develops a proposal for a cheap audio-visual slide programme on swans, intended for wide distribution.

M E EVANS  
c/o The Wildfowl Trust  
Slimbridge  
Glos  
England

## AROUND THE YEAR WITH A DANISH SWAN AMATEUR

E HANSEN

### Introduction

Research on swans in Denmark is organized by the Zoological Museum in Copenhagen and previously also by the Institute of Game Biology. However, most of the work is done by a group of amateurs supported by the Zoological Museum.

From its very beginning, the swan project has been managed by P Andersen-Harild, who has succeeded in gathering around him a group of enthusiastic amateurs. The present paper describes the events of a year, from April 1978 to March 1979, as experienced by the author.

### The Kingdom of Elleore

The Kingdom of Elleore is an islet in the Fjord of Roskilde, only 15 000 cockstrides from the Danish border. The strange Elleorian folk live there for one week in August, while Elleore is populated only by birds for the rest of the year. As most of you have probably never before heard of Elleore and its brave inhabitants, I will offer a short description before returning to the swans. The inhabitants live in exile in Denmark most of the year but early in August the kingdom is established with bureaucracy, military (land militia, navy service and corps of drakes) and a court. The people are extremely fond of uniforms and decorations. Philatelists are familiar with their famous stamps, among which bottle message stamps with the gumming on the front are unique in the world. I could go on with this ethnographic lecture for a long time but I have to return to the swans.

## The swan colony

Elleore houses a colony of *Cygnus olor* and from mid-April to mid-June this colony is visited once a week; all nests are numbered, the swans identified (25% carry neck-collars) and the eggs numbered and measured. When hatching time begins, the swans become so aggressive defending their nests that they can often be caught by hand. The old swans are ringed, while the cygnets are given wing-tags.

During the hatching period the other 30 islets of the fjord are also visited, the populations are counted, ringed swans are identified and others which can be caught are ringed. This tour is very exciting, as 10 000 other birds breed on these very small islets. The broods leave the island colony shortly after hatching and migrate to shore territories where they stay for the rest of the summer. From the shores of the fjord we locate these territories and swans carrying neck-collars are identified.

## Moulting

In July and August 1500 to 2000 non-breeding swans moult in the fjord and are searched for neck-collars. One day is used for catching moulting birds from a speed-boat. We establish a base on one of the small islets and while two men in the boat are catching the swans, three to four others are measuring and ringing them at the base. We normally catch about 70 swans in one day and sometimes the boat brings up to 20 swans at a time to the base. Moulting swans are also caught at other places. At Rødsand we get assistance from local fishermen and here we may catch up to 500 in one day.

The breeding swans moult in August and September and become able to fly again simultaneously with their young. Just before they complete moulting, we spend two days capturing the broods and their parents, exchanging the wing-tags with normal rings.

## Autumn and winter

The autumn is the most relaxed period. We use the time to consolidate the EDP files and study the results.

One out of ten Danish winters is an ice-winter. Our activities are strongly influenced by such winters as 1979, during which we made great efforts in many areas. When the first ice appears just before Christmas, the number of public observations increases. To encourage these it is very important to give a fast response. The masses of swans which come to the harbours, where people feed them with bread, attract the attention of the press. We got a lot of good publicity in that way, and we never forgot to mention the address of the ringing station. These efforts led to nearly 10 000 observations during the winter. When all natural feeding places are

closed by the ice, the swans become very trusting and can be caught by hand, up to 300 in a day. A good part of these are Swedish and Baltic swans. When the winter becomes extremely cold even *Cygnus cygnus cygnus* can be caught. We managed to ring more than 100 of them, with neck-collars.

The ice-winter increased mortality drastically and we actually collected nearly 3000 dead swans in all stages of decomposition. Most of them are still in cold storage, awaiting veterinary and chemical analysis.

## Summary

Swan research in Denmark is organized by the Copenhagen Zoological Museum but largely carried out by amateurs. The paper describes a typical year in the life of a subject of the Kingdom of Elleore, with emphasis on catching of colonial swans and operations in ice-winters.

E HANSEN

Computer Installation  
Risø National Laboratory  
Postbox 49  
DK-4000 Roskilde  
Denmark

## THE USE OF ELECTRONIC DATA PROCESSING (EDP) IN DANISH SWAN RECORDING

E HANSEN

### Introduction

During the ice-winter of 1962/63 the first large-scale ringing of Danish swans was carried out (1500 individuals). In the winter of 1969/70 a further 5000 swans were ringed. In the early 1970s we started catching the moulting swans by boat, and today, after the ice-winter of 1978/79, the total number ringed has exceeded 23 000. In 1971 the use of neck-collars was adopted as a supplement to the normal rings.

The ringing of such large numbers of such big birds in a densely populated area, and especially the use of neck-collars, led to more than 70 000 reports. This caused serious administrative troubles for the ringing centre at the Zoological Museum in Copenhagen.