

A SUBFOSSIL GREAT AUK - *PINGUINUS IMPENNIS* (L.) FROM THE NETHERLANDS

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Received 7 november 1977

In the spring of 1977 a nearly complete skeleton of a Great Auk was recovered during the excavation of a Roman site at Velsen (prov. North Holland) by the Albert Egges van Giffen Institute for Pre- and Protohistory (I.P.P.) of the University of Amsterdam. The find can be dated approximately in the first century A.D. It is the first time that remains of a Great Auk have been found in the Netherlands.

CIRCUMSTANCES OF THE FIND

The skeleton was found at ca. 60 cm below surface level (ca. 1.90 m below N.A.P.) in a ditch with a dark humic filling containing first-century Roman pottery. The ditch was covered by a layer of washed-out sand (also containing Roman pottery) and a late medieval clay layer.

The faunal remains from Velsen so far examined belong to domestic animals (cattle, pig, sheep/goat, horse, dog), hunted animals (red and roe deer, beaver, badger, hare) and birds (chicken, several ducks, goose, swan, crane). All the bones had been broken for marrow extraction, indicating that they constitute the food remains of the Roman settlement.

DESCRIPTION OF THE FIND

A total of 42 bones were found in the ditch. After the skeleton had reached the Institute and its importance had been recognised, an intensive search for the remaining bones was made, but unfortunately without success.

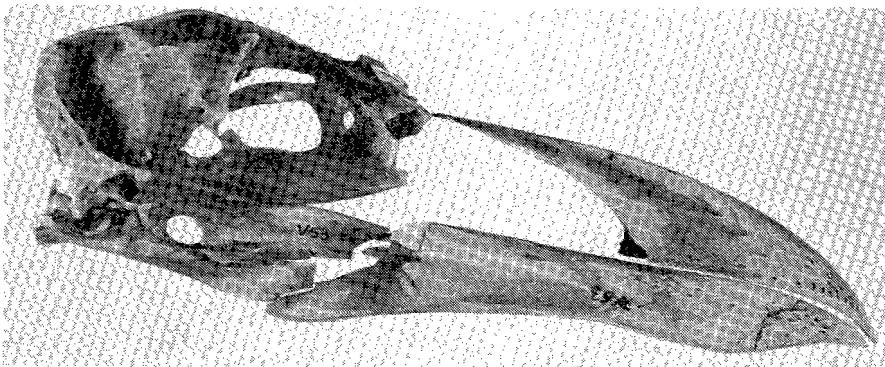


Fig. 1. Skull and mandibles of *Pinguinus impennis*, $\frac{1}{4}$ of natural size. Photo I.P.P.

The 42 bones comprise:

- a complete skull with a loose upper mandible and a fragmentary lower mandible (Fig. 1).
- 7 cervical and 4 thoracic vertebrae, the sacrum, 13 ribs and the sternum (Fig. 2).
- the furcula, left and right coracoid, left scapula, and left and right humerus (Fig. 3 and 4).
- left and right pelvic bone, femur and tibia and the right fibula (Fig. 5 and 6).

Absent are: a number of vertebrae, one scapula, one fibula and the lower parts of both the wings and the legs.

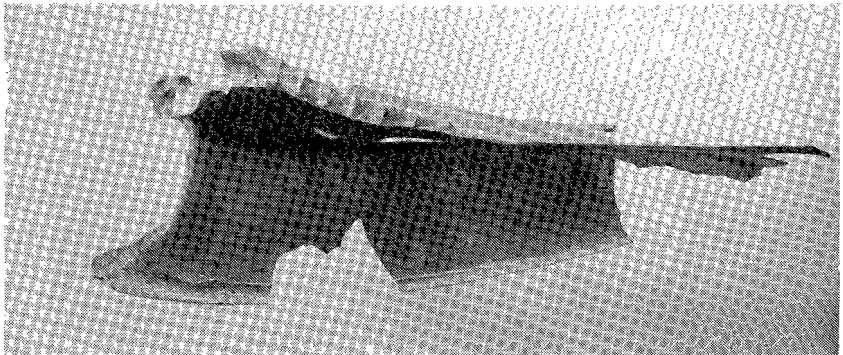


Fig. 2. Sternum of *Pinguinus impennis*, 1:2. Photo I.P.P.

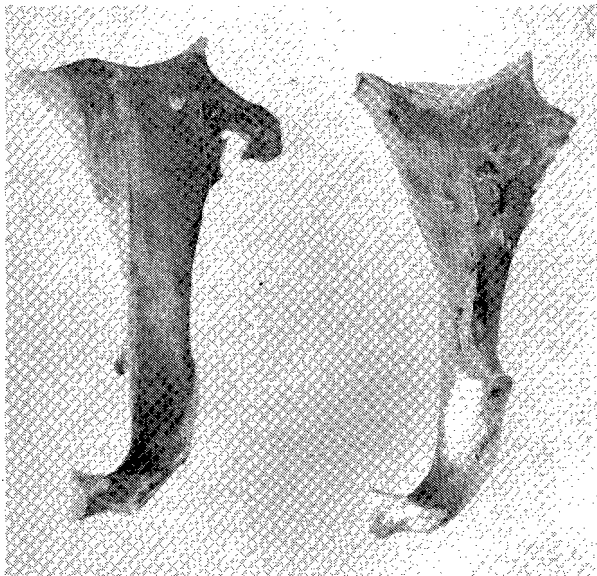


Fig. 3. Right and left coracoid of *Pinguinus impennis*, 1:1. Photo I.P.P.

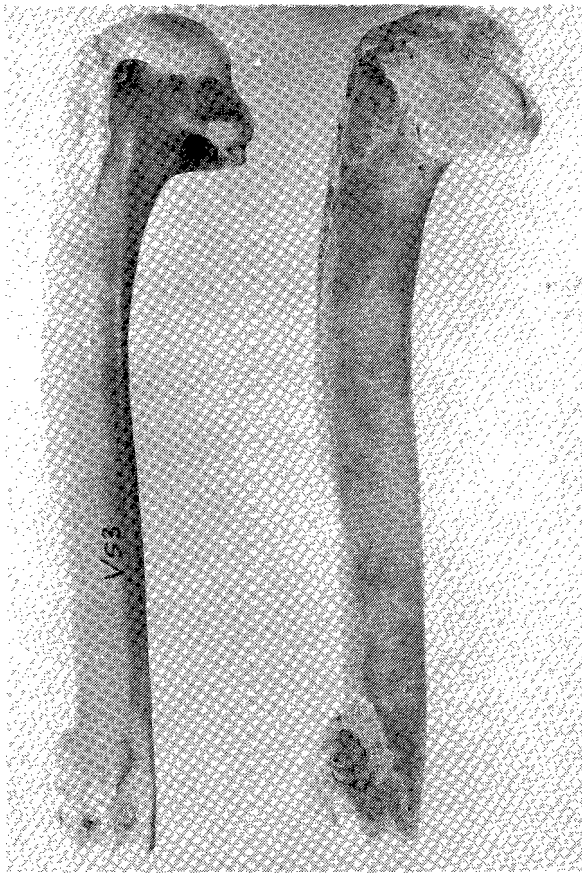


Fig. 4. Right and left humerus of *Pinguinus impennis*, 1:1. Photo I.P.P.

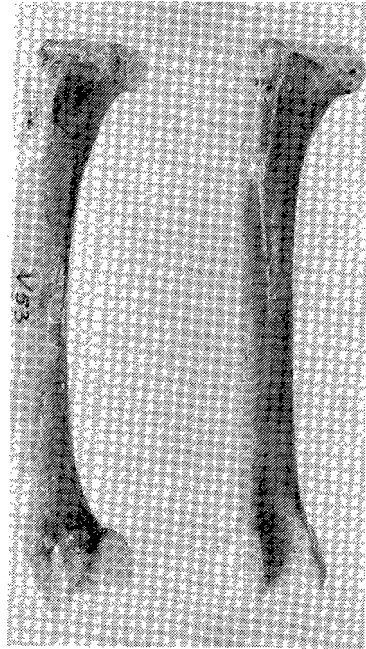


Fig. 5. Right and left femur of *Pinguinus impennis*, 1:1. Photo I.P.P.

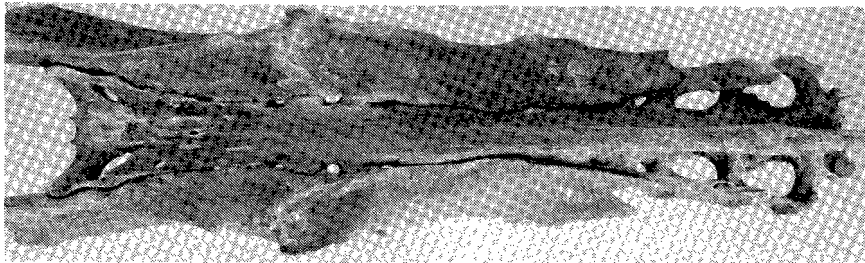


Fig. 6. Pelvis of *Pinguinus impennis*, 1:1. Photo I.P.P.

With the exception of the lower mandible, the sternum and the furcula, the bones are undamaged and show no cutting marks.

DISCUSSION

Before it became extinct in the middle of the 19th century (the last pair being seen on June 3rd, 1844) the Great Auk had a subarctic distribution with its main breeding grounds on either side of the Atlantic Ocean. The archaeozoological record indicates however that in Mesolithic times it bred as far south as the Danish coast (Greenway 1958). Until the beginning of the 19th century occasional specimens were caught around the British Isles (Grieve 1885) and near Cherbourg in France (Scherdlin 1926), but no report has ever been made with reference to the Dutch coast.

It is a matter of speculation whether the bird was caught at sea or taken when beached in a weakened condition. However, it seems unlikely that a Great Auk in sound condition could have been caught at sea, as these birds were obviously very agile swimmers and divers. The fact that it was discarded in a ditch might indicate that it was found on the beach and considered unfit for consumption on account of putrefaction.

In 1855, when Grieve wrote his monograph on the Great Auk, around 80 mounted specimens, 75 eggs and 10 mounted skeletons were known throughout the world. The Institute of Taxonomic Zoology (I.T.Z.) of the University of Amsterdam possesses one mounted male bird (Fig. 7) and one egg. The Rijksmuseum van Natuurlijke Historie at Leiden also possesses a mounted specimen and an egg.



Fig. 7. Head of mounted *Pinguinus impennis* in the Institute of Taxonomic Zoology at Amsterdam, $\frac{1}{3}$ of natural size. Photo I.T.Z.

A detailed morphological study of the Great Auk skeleton was made by Owen in 1866. Since then the number of skeletal remains of the Great Auk has been substantially augmented on the one hand from various expeditions to Funk Island near Newfoundland (Bisseling 1938), and on the other hand from the excavation of faunal remains from archaeological sites (Greenway 1958) as, for example, from Velsen.

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SAMENVATTING

Bij de opgraving van een Romeinse nederzetting bij Velsen in 1977 werd een bijna volledig skelet van een Reuzenalk gevonden. Het bevond zich in een greppel waarin ook aardewerk uit de eerste eeuw werd gevonden. Vrijwel alle botten waren gaaf. Alle andere dierlijke botten, voornamelijk afkomstig van huisdieren, vee en jachtwild, waren echter gebroken om het merg te kunnen bereiken. Hieruit werd geconstateerd dat de Reuzenalk dood op het strand werd aangetroffen en niet meer voor consumptie geschikt was.

Voordat de Reuzenalk in het midden van de vorige eeuw werd uitgeroeid, had deze een subarctische verspreiding, met de belangrijkste broedgebieden aan beide zijden van de Atlantische Oceaan. Tijdens het Mesolithicum broedde de soort zelfs aan de Deense kust. Voor het begin van de 19e eeuw werden enkele exemplaren gevangen bij de Britse Eilanden en bij Cherbourg, maar er werd nooit melding gemaakt van een Reuzenalk aan de Nederlandse kust. — R.M.T.

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