

Prehistorical and early historical distribution of Roe deer *Capreolus capreolus* (L.) in Norway

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Bone materials from more than 800 Norwegian pre- and early historical archaeological sites have been analysed. A total of four Roe deer bones are identified from three sites. This indicates that a Roe deer population was present in south-western Norway 6600—5300 BP and south-eastern Norway 7900—6700 BP. The lack of Roe deer bones in the other sites indicates that the species never had a wide distribution in the past. The present wide distribution of Roe deer in Norway is of recent date and probably caused by other factors than climate and vegetation alone.

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INTRODUCTION

Bones found at archaeological sites can give valuable information on the past distribution of animals. The prehistorical and early historical distribution of Roe deer *Capreolus capreolus* (L.) in Norway are poorly known. Written sources from the 16th and 17th Century mention occasional visits of Roe deer from southern Sweden to the Oslofjord region (cited in Collett 1912). Friis (1613) mentioned that numerous «raadyr» (= Roe deer) lived on the island Vikna in Nord-Trøndelag county. According to Collett (1912) the word «raadyr» might be a misconception for «raudyr» i.e. the Red deer *Cervus elaphus* (L.). By the end of the 19th Century, Roe deer increased their range in Norway (Collett 1912). Nowadays, the species is found in most regions, except some parts of western Norway and some islands in Troms county (Cederlund 1991, Haugerud 1989). In this paper I discuss the information bones from archaeological sites may give on past distribution of Roe deer in Norway.

MATERIAL AND METHODS

The Zoological Museum, University of Bergen, is the central institution for receiving, analysing and storing subfossil bone remains from archaeological sites. At present, material from more than 800 sites has been analysed. The remains have been identified according to a reference collection of recent bones.

The age of the culture layers in which the bones are found has been determined either by radiocarbon dating or by archaeological typology.

RESULTS

Subfossil Roe deer bones have been found at only three sites in Norway (Fig. 1). Two burned bones, a phalang-I and a pisiform, were found on a stone age site at Saugbruks, Halden, Østfold county (59°08' N, 11°23' E) (Hufthammer 1991). The bones are found in culture layers radiocarbon dated to 7900—6700 BP (Lindblom, pers. comm.)

One burned bone, phalang-III, was found in the rockshelter «Salthelleren», Ognå, Rogaland county (58°31' N, 5°46' E). The culture layers in the site are radiocarbon dated to 6470 ± 100 BP (T-3591), 6110 ± 90 BP (T-3590), 5460 ± 90 BP (T-3589) and 5470 ± 130 BP (T-3588).

One unburned bone, a tibia, was found in Oslo in deposits dated to 13th Century (Lie 1979).

DISCUSSION

Subfossil bone finds indicate that the Roe deer population was large enough to be hunted in southern Sweden (Västergötland) 9000 years ago (Lepiksaar 1986, p. 59). Archaeological findings from Hallunda in eastern Sweden indicate that the species was present

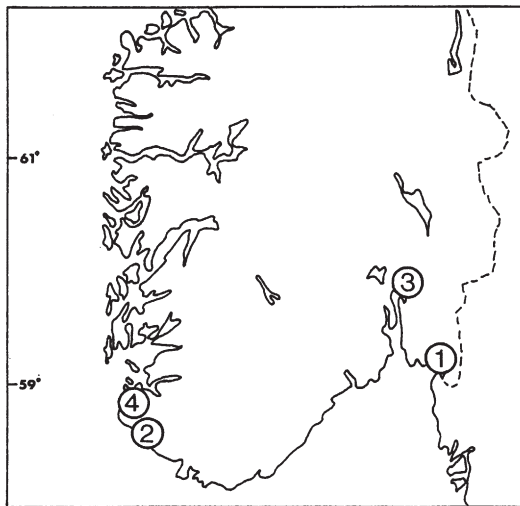


Fig. 1. Archaeological sites that indicate the presence of a prehistorical population of Roe deer in Norway. Roe deer bones have been found in the localities 1—3:1 — The site Saugbruks in Østfold county. 2 — The site Salthelleren in Rogaland county. 3 — The locality Oslogate 7, Oslo. 4 — Prehistorical rock-paintings in Rennarsundet, Rogaland county.

a least as far north as 59°N in the period 3500—2500 BP (Ekman 1987). Until about 500 years ago the Roe deer was present in most regions of southern Sweden. During historical times, 500—150 years ago, the population was very small in Central Scandinavia (Lepiksaar 1986, p. 66). In the eighteenth and nineteenth Centuries Scania was the last stronghold of the Roe deer in Sweden (Ekman 1973, p. 62).

Domestic animals were introduced in Norway 5000—4000 years ago and gradually they became more important in Man's diet. This is reflected in the archaeological bone finds. In finds younger than 2500 years wild mammal species are rare. We may therefore assume that older finds better reflect the mammalian fauna than finds from more recent time. The Roe deer was most likely valued by Man both as food and for its hide. Thus, if the species had been common it would probably have been hunted by Man and the bones would have been deposited at the settlements.

Due to geological, climatical and topographical factors, prehistoric bones are rarely preserved in eastern Norway. From the

chronozones Atlanticum (8000—5000 BP) and Subboreal (5000—2500 BP) subfossil bones in greater numbers have been found only at 6 sites or groups of sites in the Oslofjord region. Roe deer bones were found in only one of these.

The single bone found in 13th Century deposits in Oslo (Lie 1979) may not belong to an animal hunted locally. At that time animal carcasses were transported over long distances into the towns.

In Rogaland county, south-western Norway, mammalian bones in any number have been analysed from 24 sites dated to 8000—2500 BP. The best known is the Viste cave (Svarthola) (Degerbøl 1951) about 55 km north of the Salthelleren site. At the cave, bones from 15 terrestrial non-domestic mammalian species were identified, but Roe deer was not found. The species list include such rare species as the Wild Cat and the Hedgehog (Degerbøl 1951). Most bones were found in cultural layers dated to 8000—6000 BP (own unpubl. radiocarbon datings).

However, there are indications that the Roe deer at some time in prehistory was present in the Viste region. Two deer figures, probably Red deer, are illustrated in some not dated prehistoric rock-paintings in Rennarsundet, about 20 km south of the Viste cave (Bang-Andersen n.d.) (Fig. 1).

At several prehistoric sites on the western, north-western and northern coasts of Norway, numerous terrestrial mammals have been identified, but not Roe deer.

To conclude, until about a hundred years ago the Roe deer was a rare species in the Norwegian fauna, and the present widespread distribution is of recent date.

Several authors (cited in Pulliainen 1980, p. 31) have emphasized that the migratory routes of the Roe deer follow sea and lake shores. Thus, it may be significant to stress that from Norwegian prehistory, Roe deer bones have been found only at coastal settlements.

Both climate and vegetation have undergone changes in the Holocene period (Hafsten 1960, Iversen 1973, Mangerud 1990 p. 141—143). Formozow (1946) and Danilov (1979) have held out snow cover as a limiting factor for the spread of Roe deer. However, in the Holocene there have undoubtedly been periods with both more and less snow cover than in the last hundred years. Climatical and vegetational factors alone probably have not

prevented a wider distribution of the Roe deer in the past. The present wide distribution of Roe deer in Norway is of recent date and probably caused by other factors than climate and vegetation alone.

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SAMMENDRAG

Førhistoriske og tidlig historiske funn av rådyr i Norge

Rådyrets utbredelse i Norge i middelalderen og i førhistorisk tid er undersøkt med utgangspunkt i subfossile beinfunn fra arkeologiske utgravninger. Bein av rådyr er funnet i boplasser fra atlantisk tid (8000-5000 år før nåtid) i Østfold og Rogaland og fra det 13de århundre i Oslo. Kun 3, av de vel 800 beinfunnene som er undersøkt, inneholder bein av rådyr.

Resultatene tyder på at rådyret hadde liten utbredelse i Norge før 1600-tallet.

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Short communication

THE LANDSNAIL *EUCONULUS FULVUS* (GASTROPODA: PULMONATA) FOUND ON WILLOW GROUSE (*LAGOPUS LAGOPUS*)

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A find of a fullgrown specimen of *Euconulus fulvus* (Müller) was made during an ectoparasitic investigation of grouse on Tranøya, Troms county, northern Norway.

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The land gastropod species of Fennoscandia have very different distributions. Some species are boreal. Others are arctic-alpine, a considerable number of species are ubiquitous and occur from the southernmost to the northernmost part of the area whereas many species have a western (atlan-