

ADDITIONAL RECORDS OF *NATRIX NATRIX* FROM THE BRITISH PLEISTOCENE, INCLUDING THE FIRST RECORD OF A BRITISH COLD-STAGE SNAKE

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INTRODUCTION

Recently, Holman (1991) summarized the British fossil record of *Natrix natrix*. Since that time, two past fossil records of this species have been brought to my attention and I have identified new material from a Devensian cold-stage pocket at the Shropham Site, Norfolk.

Thus far, the British Pleistocene cold-stages are represented by only three herpetological genera, *Bufo*, *Rana*, and *Lacerta*, amongst which only *Rana temporaria* and *Lacerta vivipara* have been identified to the specific level (Holman, 1990). Therefore, the recent recovery of fossil *Natrix natrix* vertebrae from a Devensian pocket at the Shropham Site, Norfolk, is noteworthy.

CHROMERIAN INTERGLACIAL

Two early Middle Pleistocene records of *Natrix natrix* from the Cromerian Interglacial stage were not included in the Holman (1991) summary.

Sugworth, Berkshire – Stuart (1980) detailed the geology and vertebrate fauna of the Sugworth, Berkshire Site (near Oxford) which he assigned to Cromerian Zone Cr IIIb. He identified two fragmentary vertebrae as cf. *Natrix natrix*.

Little Oakley, Essex – Lister, McGlade and Stuart (1990) detailed the geology and vertebrate fauna of the Little Oakley, Essex, Site which they suggest is “. . . of early Middle Pleistocene age in the middle to late part of the ‘Cromerian Complex’ . . .” They believe that the Little Oakley deposit may be somewhat younger than the West Runton Freshwater Bed Site, Norfolk, which has yielded *Natrix natrix* (Holman, 1991) and the Sugworth Site above. The authors assign a caudal vertebra to *Natrix natrix*.

DEVENSIAL GLACIAL

Shropham, Norfolk – Fossiliferous beds yielding small vertebrates occur in the Minn's Aggregates Company Pit near Shropham, Norfolk, (TM 005938). A preliminary report on the stratigraphy and herpetological fossils of the site was given by Holman and Clayden (1990). Vertebrate fossils at Shropham come from two Pleistocene stages: Ipswichian (temperate) and Devensian (cold). The Ipswichian fauna comes from a detritus mud layer below Devensian gravels and muds at the top of the site.

Fossil herptiles come from two pockets within the Devensian stratum. “Pocket 1” contained detrital sediments that yielded a cache of anuran bones collected by Martin R. Warren of the Cromer Museum, Norfolk, in 1985. These bones were identified as *Rana sp.* and *Rana temporaria* (Holman, 1990). “Pocket 2” contained detrital sediments that yielded *Rana temporaria* bones and two snake bones collected by A.J. Stuart of the Castle Museum, Norfolk, in 1991. Because of the absence of records of snakes from cold-stages in the Pleistocene of Britain, I present the following information.

Natrix natrix (Linnaeus, 1758)

Grass Snake

Locality and Age: Minn's Aggregates Pit Site near Shropham, Norfolk, (TM 005938); “Pocket 2”, detrital sediments of Devensian glacial age.

Fossil Material: Two trunk vertebrae collected by A.J. Stuart, Castle Museum, Norfolk, and housed in the Shropham fossil collection at the Castle Museum, Norfolk.

Other British Fossil Records: Holman (1991) has recently summarized the fossil records of *Natrix natrix* in Britain where it has previously been recorded only from interglacial sites.

Identification: These vertebrae were identified using the criteria presented in Holman (1991, p. 8 and Fig. 1). The vertebrae were of the elongate variety that typically occupy the middle part of the trunk series of vertebrae in modern *Natrix natrix*.

Comments: This is the first fossil record that I am aware of a British Pleistocene cold-stage snake, although a lizard, *Lacerta vivipara*, has been reported from the Nazeing, Essex, Site (Holman, 1990). The Grass Snake just reaches the Arctic circle in Sweden today (Arnold and Burton, 1978), but occurs well below the Arctic circle in the rest of its European range (Arnold and Burton, 1978; Bannikov et al., 1977). The other two cold-stage species (*Rana temporaria* and *Lacerta vivipara*) identified from Britain occur within the Arctic circle in western and in eastern Europe (Arnold and Burton, 1978; Bannikov et al., 1977).

Stuart (pers. comm. Sept. 4, 1991) mentioned that the Shropham Devensian "Pocket 2" might represent early Devensian times. But whether the Shropham *Natrix natrix* fossils indicate warmer climates than occurred at other British herpetological cold-stage sites (Holman, 1990) will only be determined when the entire Devensian fauna at Shropham is detailed.

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