

The Pleistocene Vertebrate Fauna of Sun Hole, Cheddar

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The remains of animals and birds dealt with below have been submitted to me for report by Professor E. K. Tratman, O.B.E., M.D.S., F.S.A. They were obtained in the course of excavations at Sun Hole, Cheddar, between 1926 and 1953. The various bones have been collected from different levels of the Pleistocene strata down to 8 ft., and some interesting forms are included in the series.

AVES

There are some bird bones in the series mainly from the 1st-, 3rd-, and 4th-ft. levels but many require more careful consideration. The most interesting of those so far recognized are Red Grouse and Ptarmigan, the first species from all three levels and the Ptarmigan from the 1st ft.

The occurrence of Ptarmigan is in keeping with its presence in some abundance at Chelm's Combe near Cheddar, Bridged Pot shelter in Ebbor Gorge, Soldier's Hole and Gough's Cave, Cheddar Gorge, and Aveline's Hole, Burrington Combe, in the Mendips; and Merlin's Cave in the Wye valley. It has been recorded from Chudleigh, Devon; and Langwith Cave, Derbyshire, and I have noted its presence at Pin Hole Cave, Creswell Crags. Remains have been recorded from as far south as Jersey. This species inhabits most of the higher mountains of Europe, such as the Alps and Pyrenees, and occurs in Scandinavia. It only occurs in the British Isles in the highest mountains of Scotland and some of the Western Isles, seldom breeding below the 2000-ft. contour.

MAMMALIA

INSECTIVORA

Talpa europea (L.) (Mole). This animal is represented by a humerus from the 3rd ft.

RODENTIA

Lepus variabilis anglicus Hinton (English Varying Hare). This is represented by fragmentary jaws, loose teeth and broken limb bones from 1st, 2nd, 3rd, 4th, 6th, and 7th ft.

Ochotona spelæa (Owen) (Cave Pika). The occurrence of this interesting animal is confirmed by the presence of three mandibular rami from

the 2nd ft. ; a left ramus from the 3rd ft. ; one from the 4th ft. and four from the 6th ft. with two fragmentary skulls.

Apodemus sylvaticus (L.) (Long-tailed Field Mouse). A mandibular ramus comes from the 1st ft. and two rami from the 6th ft.

Lemmus lemmus (L.) (Common Lemming). Mandibular rami of this form come from 1st, 2nd, 3rd, 4th, and 6th ft.

Dicrostonyx henseli Hinton (Hensel's Banded Lemming). Remains of this animal are present in the form of mandibular rami with teeth from 1st, 2nd, 4th, 6th, and 7th ft. Some of these require further study and the other form of Banded Lemming, *D. gulielmi* (Sandford), may be present.

Arvicola abbotti Hinton (Abbott's Vole). The following mandibular rami with teeth belong to this species : two from 2nd ft., four from 3rd ft., two from 4th ft. and two from 6th ft.

Microtus anglicus Hinton (*gregalis* of some authors). Many of the small rodent jaws appear to belong to this form. There are remains from 1st, 2nd, 3rd, 4th, 6th, and 7th ft.

Microtus agrestis (L.) (Field Vole). There are jaws of this from 1st, 3rd, 4th, 6th, 7th, and 8th ft. It is possible that some may belong to the Continental Field Vole, *M. arvalis* (Pallas), but the material is imperfect.

Microtus ratticeps (K. and B.) (Northern Vole). Two mandibular rami from 4th ft. and three from 6th ft. appear to belong to this form.

Evotomys glareolus (Schr.) (Bank Vole). A mandibular ramus from 2nd ft., two from 4th ft., and three from 6th ft. belong to this animal.

UNGULATA

Equus caballus (L.) (Horse). Remains of this animal are scanty and consist of a hoof-core from 1st ft., an astragalus and splint bone from 3rd ft., splinters of leg bones from 5th ft., distal half of humerus, distal end of tibia, two upper molars, two lower molars and one incisor together with a fragmentary mandibular ramus, which shows gnawing by wolf, with three milk molars in place, and fragment of ramus with two premolars in place and two loose premolars, all from 6th ft. The teeth suggest the *robustus* type.

Rangifer tarandus (L.) (Reindeer). A few fragmentary remains belong here. From 1st ft. there is the upper half of a metatarsal, a calcaneum, and some foot bones. From 2nd ft. are fragments of leg bones, including some showing splitting. From 3rd ft. are some broken limb bones including metacarpals, metatarsals, calcaneum, astragalus, phalanges, scapula, femur, radius, ulna and one upper molar. There are also fragments of antler broken, not cut, off the skull. Other bone fragments come from 6th ft., and part of a mandibular ramus with teeth is from a disturbed situation.

Sus scrofa L. (Boar). From 6th ft. is the symphysis of the mandible.

CARNIVORA

Canis lupus (L.) (Wolf). A broken foot bone comes from 3rd ft. and from 6th ft. are three fragments of skull, a fragment of the right maxilla, and the right and left mandibular rami with a few teeth in place. From 7th ft. is a lower carnassial tooth.

Vulpes vulpes (L.) (Fox). Three canine teeth come from 2nd ft., also the proximal end of a radius and foot bones. From 7th ft. is a lower canine tooth. From a disturbed situation are a fragment of a mandible with teeth and other remains. They are probably from 1st or 2nd ft.

Mustela nivalis (L.) (Weasel). From 4th ft. is a left mandibular ramus with teeth in place.

Ursus cf. arctos (L.) (Brown Bear). From 3rd ft. is a phalange with an abscess cavity. From 6th ft. are three phalanges.

COMMENTARY

The fauna listed above is undoubtedly Late Pleistocene in date and compares favourably with that found in many other British caves as well as those on the Continent. The remains of the rodents like the Pika are extremely interesting as they have been found in many caves in the west of England. They have been recorded from Merlin's Cave and other caves in the Wye valley, Forest of Dean; Aveline's Hole, Rowberrow Cavern, Chelm's Combe Rock Shelter, Bridged Pot Cave, Bleadon Cave and Gough's Cave in the Mendip area: Brixham Cave and Kent's Cavern and Chudleigh in Devon, and from the famous Ightham Fissures in Kent. So far no remains have been found in the north of England or in Wales, Scotland or Ireland. The Pika appears to have been a late arrival in England and did not survive long. The fossil Pika is very closely related to, and some think identical with, the form now only living in eastern Russia and Siberia. It is a typical Steppe species. Fossil occurrences are common in continental caves, usually associated with Magdalenian objects.

Other interesting species in the cave fauna with a wider range of occurrences are the lemmings now no longer living in Britain. The common lemming, *Lemmus lemmus*, has a present range through the Scandinavian peninsula and Russian Lapland. The present day relatives of the other lemmings in the list live entirely in the arctic regions.