

BIRD REMAINS FROM GOUGH'S OLD CAVE CHEDDAR, SOMERSET

by

C. J. O. HARRISON

N.G.R. ST 46685388

ABSTRACT

Specimens collected in 1954-58 at 6 to 10 feet depths in deposits near the cave entrance in Gough's Old Cave, Cheddar, include 23 bird species. There has been a considerable mixture of material and three mammal bones give dates between 12,300 and 9,300 bp, with the most recent in the lowest stratum. The avifauna is mainly typical of warmer conditions, with Ptarmigan *Lagopus mutus* as the only good indicator of cooler conditions. Bird species include some requiring the presence of trees, and others typical of open grassy places.

INTRODUCTION

Gough's Old Cave is the earlier of the two caves opened to the public by R. C. Gough in the late 19th. century. Although related to the cave that is now known simply as Gough's Cave, it is separate from it, and is very much smaller. Its entrance lies at a slightly higher altitude only about 50 metres west of the entrance to Gough's Cave.

During 1954-1958 intermittent excavations of deposits within Gough's Old Cave yielded a number of vertebrate bones. The general results of the excavations were described by E. K. Tratman (1960) and in an appendix R. J. G. Savage listed the vertebrate fauna. Only the mammals were specifically identified, and bird bones were merely listed as being present in all layers.

In the list of material in this appendix 'large bird bones' are noted at 7 ft. and 8 ft. depths, each followed by the note '(with Owl)'. The statement that an owl, not specifically identified, occurs in these layers is repeated in the appendix text. To be large bones they would have to be those of Eagle Owl *Bubo bubo*. There are at present no owl bones in the samples. Either they have been identified and removed, or bones of geese or Bustards had been mistaken for those of a large owl in the absence of more exact identification.

In the present study bird bones from 6 ft. to 10 ft. layers were examined. A horizontal grid had been used, and samples bear the label 'Gough's Old Cave. M17. N/11' except for the 10ft. layer which is given as N/10. In the appendix list it was stated that for both the 7 ft. and 8 ft. layers there were both small bird bones and large ones; but only sample of larger bones was found, labelled for the 8 ft. layer. All specimens were identified by comparison with skeletons in the avian osteological collection of the Sub-department of Ornithology, British Museum (Natural History). Twenty-three species were recognized, but two of these represent closely-related species-pairs where osteological separation was not possible.

ENVIRONMENTAL INFORMATION

Within the 6 ft. layer a bone of a Horse *Equus ferus* has been dated at c. 12,400 bp. This would indicate that it was within the Windermere (Allerød) Interstadial occurring near the end of the Devensian Glaciation. The mammal

list includes the presence of Reindeer *Rangifer tarandus* and Lemming *Lemmus lemmus* in layers 10 ft., 9 ft. and 5 ft. indicating colder conditions at times, possibly associated with the final brief Loch Lomond Readvance.

However, the antler-base of a Reindeer dating from the Loch Lomond Readvance at c. 10,190 bp is in the 9 ft. layer in M17. N/11, three feet below the Windermere Interstadial Horse; while a Beaver *Castor fiber* mandible in M17. N/11 in the 10 ft. layer is dated only c. 9320 and is Flandrian. There has obviously been a very considerable mixture of material during or prior to deposition which would appear to invalidate the stratification other than to indicate that the specimens are likely to be from Windermere Interstadial to early Flandrian.

In examining the small bird fauna prior to the evidence on dating, the occurrence in separate layers of different bones of species that are relatively uncommon in these cave deposits had aroused a subjective and unproven suspicion that the same individual might be involved. The Golden Eagle *Aquila chrysaetos* and an apparently immature male of the Great Bustard *Otis tarda* in both the 7 ft. and 9 ft. layers are examples; although the presence of Hobby in both the 7 ft. and 10 ft. layers involves two different individuals.

Of the birds identified, the Ptarmigan *Lagopus mutus* is associated with tundra-type conditions but may persist on high ground when conditions have ameliorated to some extent at lower levels. Other species breeding in cooler conditions—Goosander *Mergus merganser*, Fieldfare *Turdus pilaris*, Redwing *Turdus iliacus* and Snow Bunting *Plectrophenax nivalis*—may have been present as winter visitors, being species that occur as such at the present day. The geese and ducks are indicative of water nearby. In addition to Hobby and Black Grouse, the Greater Spotted Woodpecker *Dendrocopos major* and the thrush species would all be associated to some degree with the presence of trees; while Common Partridge *Perdix perdix*, Great Bustard and Lapwing *Vanellus vanellus* indicate open grassland.

The Golden Eagle is not unexpected, but is the first identified in the Pleistocene and early Flandrian of southern Britain, other eagle records involving the White-tailed Eagle *Haliaeetus albicilla*. Within southern Britain the Great Bustard and Red-billed Chough *Pyrhcorax pyrrhcorax* had previously only been identified in caves from Early Flandrian material at Port Eynon Cave in the Gower Peninsula, South Wales (Harrison, 1987 a & b), where both occurred; and they seem to be indicative of mild conditions.

MATERIAL

Greylag Goose *Anser anser*. 7th. ft., ulna; 8th. ft., ulna lacking distal end.

Mallard *Anas platyrhynchos*. 6th. ft., distal tibiotarsus; 9th. ft., tarsometatarsus, proximal femur.

Teal *Anas crecca*. 9th. ft., ulna.

Tufted Duck *Aythya fuligula*. 6th. ft., proximal radius.

Goosander *Mergus merganser*. 9th. ft., distal humerus.

Golden Eagle *Aquila chrysaetos*. 7th. ft., carpometacarpus; 9th. ft., proximal radius, basal lower mandible.

Hobby *Falco subbuteo*. 7th. ft., carpometacarpus; 10th. ft., distal carpometacarpus.

Black Grouse *Lyrurus tetrix*. 6th. ft., proximal radius; 9th. ft., humerus, 2 fragments of ulna; 10th. ft., lower mandible, distal tibiotarsus.

Willow/Red Grouse *Lagopus lagopus*. 6th. ft., proximal and distal coracoid, distal tibiotarsus, 2 carpometacarpi, distal humerus, distal radius; 10th. ft., tarsometatarsus, pelvis fragment.

Ptarmigan *Lagopus mutus*. 10th. ft., distal tibiotarsus.

- Common Partridge *Perdix perdix*. 6th. ft., distal coracoid.
 Great Bustard *Otis tarda*. 7th. ft., tibiotarsus, 2 ulnae, radius (? imm. male); 8th. ft., proximal distal and shaft fragments of ulna, distal radius; 9th. ft., humerus (? imm. male), coracoid.
 Lapwing *Vanellus vanellus*. 10th. ft., femur.
 Rock Dove *Columba livia*. 6th. ft., metacarpal, proximal radius; 7th. ft., proximal tibiotarsus, carpometacarpus.
 Greater Spotted Woodpecker *Dendrocopos major*. 7th. ft., humerus, carpometacarpus.
 Blackbird/Ring Ousel *Turdus torquatus*. 7th. ft., distal humerus, carpometacarpus.
 Fieldfare *Turdus pilaris*. 6th. ft., ulna, distal tarsometatarsus, 7th. ft., tarsometatarsus.
 Song Thrush *Turdus philomelos*. 10th. ft., distal tibiotarsus.
 Redwing *Turdus iliacus*. 6th. ft., carpometacarpus.
 Stonechat/Whinchat *Saxicola torquata/rubetra*. 6th. ft., humerus.
 Snow Bunting *Plectrophenax nivalis*. 6th. ft., humerus.
 Chough *Pyrhocorax pyrrhocorax*. 6th ft., 2 proximal and 2 distal humeri, 2 femora, carpometacarpus, distal coracoid (? all juvenile).
 Jackdaw *Corvus monedula*. 7th. ft., ulna, proximal femur (? both juvenile); 9th. ft., incomplete ulna (? juvenile); 10th. ft., proximal femur, tarsometatarsus (juvenile).

All specimens are in the collection of the University of Bristol Spelaeological Society.

ACKNOWLEDGEMENTS

I am very grateful to Roger M. Jacobi and Andrew P. Currant who brought the material to my attention and helped to make it available, and to the former for information on the dating of specimens; also to Graham S. Cowles who is in charge of the collections of the Sub-department of Ornithology, British Museum (Natural History), for access to reference material.

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Dr C. J. O. HARRISON, 48 Earl's Crescent, Harrow,
 Middlesex HA1 1XN, U.K.