

## BIRD BONES FROM CHELM'S COMBE SHELTER, CHEDDAR, SOMERSET

by

C. J. O. HARRISON

N.G.R. ST 46345447

### ABSTRACT

As a first contribution towards the re-evaluation of the Late Pleistocene and Holocene find-spot of 'Chelm's Combe Shelter' fresh identifications are presented for all those Pleistocene age birds so far traced.

The 6 m long north-facing rock overhang termed 'Chelm's Combe Shelter' disappeared as a result of quarrying in 1964. It was situated on Tutter's Hill, just north of the entry to Cheddar Gorge. At an altitude of about 111 m. it was not far beneath the plateau of Mendip (Barrington and Stanton, 1977, p. 50).

The scree which had accumulated by disintegration of the cliff above the 'shelter' were sounded to a depth of 22 ft (about 6.8 m) but not bottomed (Balch, 1927). They were examined in horizontal spits, numbered top to base, and each, except the topmost, one foot (roughly 0.3 m) thick.

Bones of domestic species were identified from as deep as spit 5 (Jackson in Balch 1927, pp. 119-120). No pottery or artefacts of types normally associated with farming communities were found below this spit.

Mammal species known locally only from Pleistocene contexts were recovered from spit 6 and below. This fauna, presently being studied by A. P. Currant, includes much Reindeer. Individual fossils of this species from spits 7 and 12 are dated to about 10,000 years ago (Burleigh, 1986). It remains to be demonstrated, however, that the whole of the fauna recovered below spit 5 is of Pleistocene age.

Evidence for human activity from deeper within the scree than this spit takes the form of flint flakes, reported (Balch, 1927) but so far all untraced, human fossils (Cooper in Balch, 1927, pp. 101-106) still to be sought, and a detached Red Deer antler tine from spit 8 (cf. Clark, 1958, fig. 5B).

The bird bones identified here are all from deeper within the scree, spits 10-13, than any reported human artefacts or fossils.

E. T. Newton (in Balch, 1927) listed the bird species that he had identified. There were more species and many more specimens, and he refers to material ranging from spit 3 to spit 21. The presence of single specimens for Eagle Owl and Barnacle Goose suggests that the Wells Museum specimens were included in this list but they no longer have the spit numbers. It is possible that the other untraced material may have been a part of that destroyed at Bristol during the Second World War. The species are listed here at the end of the text.

The Chelm's Combe Shelter bird bones studied here are relatively small in number, but most species are represented by several elements. Specimens preserved in the Wells Museum collections are now unstratified: the remaining material, which is marked as having come from spits A10 to A13, is in the Cheddar Caves Museum.

The bird species (TABLE I) give some limited information on the prevailing environment during their lifetime. Gamebird species, Galliformes, are usually good indicators of local conditions as they do not normally travel any great

TABLE 1—Levels of specimens examined; each spit represents a depth of about 0.3 m. Spit numbers in parentheses are from Newton's list.

spits	unstratified	10	11	12	13
Barnacle Goose <i>Branta leucopsis</i>	*(11)				
Kestrel <i>Falco tinnunculus</i>		*			
Ptarmigan <i>Lagopus mutus</i>	*	*		*	
Willow/Red Grouse <i>L. lagopus</i>	*	*		*	
Hazelhen <i>Tetrastes bonasia</i>					*
Little Auk <i>Alle alle</i>	*(3, 9)	*			
Eagle Owl <i>Bubo bubo</i>	*(12)				
Blackbird/Ring Ousel <i>Turdus merula/torquatus</i>			*		
Song Thrush <i>Turdus philomelos</i>		*	*		

distance. The Hazelhen, the only bird species from A13, normally indicates the presence of woodland with undergrowth. The occurrence of Ptarmigan in A10 and A12 indicates the presence of tundra-type conditions, although these may have been limited to the higher ground of Mendip (as is the case in the Cairngorm region of Scotland at the present day). In A10 and A12, the presence of Red Grouse suggests willow scrub or heather in the vicinity.

A10 and A11 produced remains of Song Thrush, a species of woodland cover—though not necessarily of any great extent; and if that habitat was present then the associated species might be Blackbird rather than Ring Ousel which prefers barer rocky places. Spit A10 combines Ptarmigan and Red Grouse with Song Thrush and Kestrel. These forms could occur together today in the northern part of the Boreal forest zone of Scandinavia.

Bones of the Little Auk are attributed to A10. The only other claimed record of this species in the British Pleistocene is in E. T. Newton's list of birds from the Chudleigh Fissure in South Devon (Newton, 1923), but the specimen concerned could not be traced in a recent reappraisal of this collection (Harrison, 1980). The Little Auk is a plankton-feeding seabird, normally occurring near sea ice, breeding in burrows and rock crevices—often in talus slopes—in large coastal colonies in the High Arctic and North Atlantic. Its occurrence at Cheddar is interesting. At a time of low sea-level Cheddar would have been some distance from the sea. However, when at sea and not breeding this species tends to be subject to 'wrecks' when large numbers are carried inland by persistent westerly gales. Weakened birds often land almost anywhere, and many die. Such birds would be very vulnerable to predation.

The Eagle Owl, which could have taken any of the species present, is the only serious avian predator for which we have evidence. The Kestrel could have been another prey species in this assemblage, or a resident minor predator.

The Barnacle Goose is another High Arctic breeding species, wintering south in Britain to the Solway Firth, and in southern Ireland on low grassy coasts. It may stray on passage and would have wintered further south in colder periods of the past. In its Arctic breeding it utilises sites on the precipitous sides of rocky gorges and cliffs, so that it is possible that in a cold period it could have been prospecting, or even nesting in Cheddar Gorge. However, while there is evidence of such behaviour in South Wales during the coldest part of the Devensian, conditions seem to have been relatively mild during the period in which the deposition of these specimens occurred.

In view of the milder climate and more wooded habitat suggested by some of the bird species, it is possible that some material from spits 13–10 may

relate to the period of the Windermere Interstadial, c. 12,500–10,800 bp., which tends to create apparent anomalies in many of these late Devensian deposits.

### MATERIAL

Figures with the prefix 'A' are spit numbers of specimens at the Cheddar Cave Museum.

Barnacle Goose *Branta leucopsis*. Wells Museum: incomplete femur.

Kestrel *Falco tinnunculus*. A10: tarsometatarsus.

Ptarmigan *Lagopus mutus*. Wells: 2 tarsometatarsi, carpometacarpus, coracoid, humerus, radius, ulna, femur. A10, 12: 3 tarsometatarsi, 2 carpometacarpi, 2 humeri.

Willow/Red Grouse *Lagopus lagopus*. Wells: 2 tarsometatarsi, 2 carpometacarpi, 2 coracoids, humerus, femur, ulna. A10, 12: 7 tarsometatarsi, 2 carpometacarpi, coracoid, humerus, ulna.

Hazelhen *Tetrastes bonasia*. A13: humerus, ulna.

Little Auk *Alle alle*. Wells: proximal humerus, femur, 2 ulnae. A10: 2 ulnae.

Eagle Owl *Bubo bubo*. Wells: carpometacarpus.

Blackbird/Ring Ousel *Turdus merula/torquatus*. A11: humerus, ulna, femur, coracoid.

Song Thrush *Turdus philomelos*. A10, 11: 2 humeri, 2 ulnae, 2 femora, tibiotarsus, coracoid, 2 tarsometatarsi.

Newton's list (in Balch, 1927) of species and the spits in which they occur includes some species which indicate that more material was available to him. Unfortunately, his errors of identification of bones from other sites make it inadvisable to include his list, based on unchecked material, with the one above. It may however help in identifying the levels of occurrence of some specimens and is listed below with spit numbers:

Barnacle Goose *Branta leucopsis* 11. Mallard *Anas platyrhynchos* 8, 9, 10. Shoveler *Anas clypeata* 9. Kestrel *Falco tinnunculus* 9, 14, 15, 19. Red Grouse *Lagopus lagopus* 3, 7, 8–13, 15, 21. Ptarmigan *L. mutus* 3, 8–10, 12–14, –15, 17. Common Pheasant *Phasianus colchicus* 15. Common Partridge *Perdix perdix* 7, 11, –12, 13–15, –17, 19, 20. Little Auk *Alle alle* 3, 9, 10. Eagle Owl 12. Green Woodpecker 11. Pied Wagtail *Motacilla alba* 11. Meadow Pipit *Anthus pratensis* 8. Blackbird/Ring Ousel *Turdus merula/torquatus* 4, 5, 7, 10–15. Redwing *Turdus iliacus* 9, 11, 12. Song Thrush *Turdus philomelos* 5–7, 9–13, 17. Mistle Thrush 8. ?Blackcap *Sylvia atricapilla* 11. Great Tit *Parus major* 11. ?Chaffinch *Fringilla coelebs*. 11. Greenfinch *Carduelis chloris* 11.

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