

Coots (*Fulica atra*), twelve White-winged Black Terns (*Chlidonias leucoptera*) and a Black Tern (*C. nigra*).

This implies that Lake Stymphala is possibly the best place for waterbirds in Greece south of Corinth. Doubtless these also once included most of the species which still survive on the larger lakes such as Prespa to the north, in which case there was once probably a mixed breeding colony of pelicans, cormorants, herons and ibises and possibly another of gulls and terns within sight of the Classical acropolis beside the lake, where judging by the appearance of the birds on the coinage they were probably conserved, if only for the pot. They doubtless made a spectacular outcry when they were disturbed, but are hardly likely to have attacked anyone. They would have been more interested in the fish than the crops, though these may also have been taken by wintering flocks of cranes and geese while they were growing and food was scarce in the early spring. It would not really be necessary to call upon Heracles to discourage them.

It seems likely that the classical Greeks would have recognised that he was poaching in one of the first nature reserves.

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Ancient knowledge of the birds now known at Lake Stymphalus

There seems to be no record of what the ancients knew or believed about birds actually at Lake Stymphalus, apart from the legend of the Stymphalian Birds, and the representations of birds on Stymphalian coins—one perhaps a Great Crested Grebe, and one not identifiable as any species—which have been discussed in previous notes in *JHS*;¹ but it will perhaps be of interest to see what knowledge ancient authors show of the birds which Dr Bourne saw at the lake and notes above.

Aristotle *Historia animalium* viii 593b1–12, 15–24 gives a list of the birds of lakes and rivers which includes most of the groups of birds mentioned by Bourne, though it is frequently not possible to identify Aristotle's birds with individual species. Thus Aristotle mentions grebe (*κολυμβίς*), heron (*ἔρωδιός*), ducks (e.g. *νήττα*, *βόσκας*), coot (*φαλαρίς*), goose (*χίην*), an ash-coloured gull (*λάρος* . . . *σποδοειδής*) and a cormorant (*ὁ καλούμενος κόραξ*, the size of a stork but with shorter legs, web-footed and black, which perches and nests on trees).² Most of these names refer, so far as we can tell, to groups of birds, not single species; however, the size of *κόραξ*, and its nesting in trees, identify it as the common Cormorant (*Phalacrocorax carbo*);³ and *νήττα*, which is the commonest duck-name, and a standard of reference in describing other

¹ S. Benton, 'Note on sea-birds', *JHS* xcii (1972) 172–3; J. K. Anderson, 'Stymphalian and other birds', *JHS* xcvi (1976) 146.

² The identifications of these ancient bird-names are those accepted by D'Arcy W. Thompson, *A glossary of Greek birds*² (London/Oxford 1936), and by J. Pollard, *Birds in Greek life and myth* (London 1977), and seem certain. (The whole of this note is heavily indebted to these two works, and I do not indicate every obligation to them.)

³ The Shag (*Phalacrocorax aristotelis*) is nearly as large, but does not nest in trees. See S. Cramp *et al.* (edd.), *Handbook of the birds of Europe* i (Oxford 1977) 205, 212.

duck,⁴ should refer primarily to the most familiar duck, presumably the Mallard (*Anas platyrhynchos*). *φαλαρίς*, too, which is evidently connected with *φάλαρος*, 'having a patch of white', can hardly refer to any species but the Coot (*Fulica atra*).

κολυμβίς in this passage of Aristotle could denote any or all of the grebes; but particular kinds do seem to be referred to by other authors. Athenaeus 395d, quoting Alexander of Myndus, mentions *ἡ μικρὰ κολυμβίς*, the smallest of aquatic birds, which must be the Little Grebe (*Tachybaptus ruficollis*);⁵ and it has been suggested in previous notes in *JHS*⁶ that the 'Thracian birds' and *δυτῖνοι* mentioned by Dionysius *Ixeuticon* ii 14 were Great Crested Grebes (*Podiceps cristatus*) and Black-necked Grebes (*Podiceps nigricollis*).

ἔρωδιός was applied to herons and bitterns in general, and ancient writers knew that there were several species. It seems likely that the Purple Heron (*Ardea purpurea*) plus the Grey Heron (*Ardea cinerea*, the species familiar in Britain) are meant when Aristotle calls one kind of Heron *ὁ πέλλος*, the dark or dusky,⁷ and when Dionysius says that some are *ποικίλοι καὶ μείζονες*.⁸ Others, says Dionysius (*ibid.*), are *βραχεῖς* . . . *καὶ λευκοί*, and Aristotle speaks of *ὁ λευκός* which nests in trees;⁹ and one of the species they meant was probably the Squacco Heron (*Ardeola ralloides*), which appears white in flight (though buff when at rest), is small for a heron and often nests in trees.¹⁰ Aristotle's third heron, *ὁ ἀστερίας*, is traditionally identified with the Bittern (*Botaurus stellaris*); all he says of it is that it is lazy (*τούτων ἀργότατος*),¹¹ and if that refers to its skulking by day in reed-beds or other vegetation, then it would be applicable to the Little Bittern (*Ixobrychus minutus*) and Night Heron (*Nycticorax nycticorax*) also.¹²

Of the three ducks mentioned by Bourne, the Mallard was probably the Greek *νήττα* (see above). No Greek duck-name seems to have been referred to the Pochard (*Aythya ferina*); but Athenaeus 395c, quoting Alexander of Myndus, mentions *τὸ λεγόμενον γλαυκίον διὰ τὴν τῶν ὀμμάτων χροῖαν*, and this has been taken to refer to the Ferruginous Duck (*Aythya nyroca*), of which the male has a conspicuously white eye.¹³

⁴ E.g. *HA* viii 593b17 f., *βόσκας* is *ὁμοίος μὲν νήττη, τὸ δὲ μέγεθος ἐλάττων*. Cf. similar phrases in Athen. 395d–e.

⁵ So D'Arcy Thompson 158. Pollard 70 seems to suggest that *κολυμβίς* on its own means the Little Grebe; but I can see no reason for assuming this, except when it is qualified by *μικρὰ*.

⁶ J. K. Anderson, *Θρᾷξ, Δυτῖνος, Καταρράκτης*, *JHS* xcii (1972) 171–2; J. Buxton, 'A further note on sea-birds', *JHS* xciv (1974) 170–1; and Benton (n. 1).

⁷ *HA* ix 609b22, 616b33.

⁸ *Ixeut.* ii 9.

⁹ *HA* ix 617a2–5.

¹⁰ They certainly also meant the Little Egret (*Egretta garzetta*), which is pure white, small and tree-nesting, presumably also the Spoonbill (*Platalea leucorodia*) and the Great White Egret (*Egretta alba*); though that is almost as large as the Grey Heron and normally nests in reeds; and, if they knew it, the Cattle Egret (*Bubulcus ibis*; nowadays, at least, only a vagrant in south east Europe). (Aristotle clearly mentions the Spoonbill as *λευκερωδιός* at *HA* viii 593b2, referring to its long, broad bill.) On these herons see Cramp *et al.* (n. 3) i 273 ff., 352 ff.

¹¹ *HA* ix 617a7.

¹² See Cramp *et al.* (n. 3) i 247, 256, 263.

¹³ So Pollard 66. D'Arcy Thompson 76 suggests other species of duck.

Of Bourne's other birds, there seems to be no known Greek name for the Moorhen (*Gallinula chloropus*)¹⁴—a fairly small bird, which spends a good deal of time hidden in thick vegetation. (We know the Greek names for two related birds, but both seem to refer to single, larger species: *φαλαρίς*, the Coot [see above]; and *πορφυρίων*, the Purple Gallinule [*Porphyrio porphyrio*].)¹⁵ Nor is there any evidence that the ancients knew two other small species mentioned by Bourne, the Black- and White-winged Black Terns (*Chlidonias niger* and *C. leucopterus*). In their winter plumage both could easily be confused with other terns; but in the breeding season they are conspicuously black birds which haunt fresh water, quite distinct from Dionysius' *καταράκτης* and Homer's *εἰναλίη κήξ*, although both are terns, since *καταράκτης* is white and both are sea-birds.¹⁶

Bourne mentions three other birds or bird-families which ancient authors certainly mention, though they are not in the Aristotelian list to which I began by referring: the Glossy Ibis (*Plegadis falcinellus*), pelicans and cranes. Herodotus ii 75–6 and Aristotle *HA* ix 617b27 ff. mention *ἴβις*, but only as an Egyptian bird. Both speak of two species, black and white; and D'Arcy Thompson (108–10) argues convincingly that the two species mentioned by Herodotus are respectively the Bald Ibis (*Geronticus eremita*) and the modern 'Sacred Ibis' (*Threskiornis aethiopicus*), neither of which is known in Greece. However, Pollard (66) points out that Aristotle's 'black ibis' is confined to Pelusium in the Nile delta, so should be not the Bald Ibis, which is normally a desert bird, but the marsh-haunting Glossy Ibis—the species seen by Bourne at Lake Stymphalus. So it is a puzzle whether ancient authors knew the Glossy Ibis as a Greek bird.

The pelican is known in ancient authors as *πελεκάν* or *πελεκίνος*. Aristotle says (*HA* viii 597a9–11) *οἱ πελεκάνες . . . ἐκτοπίζουσι, καὶ πέτονται ἀπὸ τοῦ Στρυμόνος ἐπὶ τὸν Ἰστρον, κάκει τεκνοποιοῦνται*—which suggests that they were not known as a breeding bird in Greece. It is some confirmation of this that Aristophanes makes no use of the comic possibilities of the pelican's enormous beak: presumably his audience did not know about pelicans.¹⁷ Of the crane Aristotle says (*ibid.* 4–6): *αἱ γέρανοι . . . μεταβάλλουσι . . . ἐκ τῶν Σκυθικῶν πεδίων εἰς τὰ ἔλη τὰ ἄνω τῆς Αἰγύπτου*, suggesting that they occurred in Greece only on migration and neither bred nor wintered there. This is confirmed by other authors, from Hesiod and Homer onwards, who speak of the crane's appearance as a sign of autumn, and of its flight (to Africa) to avoid the

winter.¹⁸ With these two birds the ancient evidence, so far as it goes, is against Bourne's suggestion of pelicans breeding and cranes wintering at Stymphalus, though it is not strong enough to exclude the possibility of small numbers occurring there.¹⁹

To sum up: it looks as though the ancients knew most of the species mentioned by Bourne (except for some of the smaller ones); but it is seldom possible to be completely certain, because we seldom have enough information to identify individual species in ancient authors' discussions of birds: they could be referring to any or all of several species. Either they had not examined the birds closely enough to distinguish different but similar species, and used one name, or descriptive phrase, for all of them; or (if they had distinguished the species) they omitted to record adequate descriptions of them in those of their works which survive. The first of these two possibilities is probably true of the herons (see above); the second is probably true, to some extent at least, of the ducks, since we have several apparent duck-names with little or no clue by which we might determine the species meant; for instance, *βόσκας*, *αἰξ* and *πηνέλοψ* in Aristotle *HA* viii 593b17 and 23. Generally speaking, the larger the bird, the more the ancients tell us about it: hence we have useful information about pelicans and cranes, but not an identifiable mention of Moorhen or Black Terns. Ancient authors tend to be unhelpful about where the birds they mention occurred, though it is a natural assumption that in authors down to Aristotle's time (that is, for as long as the area of Greek settlement and culture remained small) most of the birds mentioned occurred in Greece or around the Aegean, or in south Italy or Sicily, unless our authors say otherwise. The nearest thing to a local bird-list that I have come across is from the list of goods (*δὲ ἔστιν ἀγαθὰ Βοιωτοῖς ἀπλῶς*) brought by the Boeotian for sale to Dicaearchus in Aristophanes' *Acharnians* (875–8):

*νάσσας κολοῦως ἀτταγᾶς φαλαρίδας
τροχίλωσ κολύμβωσ . . .
καὶ μὰν φέρω χάνας . . .*²⁰

Of course this is not serious ornithological evidence; but it is perhaps just worth noticing that it (purportedly) relates to an area only fifty miles or so from Stymphalus, and includes four of the birds mentioned above: mallard, coot, grebes and geese.

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¹⁴ As Pollard 70 points out.

¹⁵ On the identification of *πορφυρίων* see D'Arcy Thompson 252 f., Pollard 69. Its dark blue colour and large size distinguish it from the Moorhen.

¹⁶ See Dionysius *Ixeut.* ii 3, Homer *Od.* xv 479. On *καταράκτης* see J. K. Anderson (n. 6) 171, (n. 1) 146; J. J. Hall, 'The bird cataractes', *JHS* xcix (1979) 163–4.

¹⁷ *Birds* 882 mentions *πελεκάντι καὶ πελεκίνω*, but says nothing about them. *Birds* 1155 f., *πελεκάντες, οἱ τοῖς ῥύγχεσιν ἀπεπελέκησαν τὰς πύλας*, is simply a pun on *πέλεκυς*, 'axe', and shows no knowledge of pelicans as birds. (According to D'Arcy Thompson 233 the reference is to woodpeckers, not pelicans.)

¹⁸ Hesiod *Op.* 448 ff; Homer *Il.* iii 3 ff; other passages quoted by D'Arcy Thompson 70–2. Nowadays, no cranes winter in Greece, though some do in Turkey; but most of the cranes of Europe winter in Africa. See Cramp *et al.* (n. 3) ii (1980) 620.

¹⁹ There is no evidence that the ancients distinguished the two European species of pelican, the White (*Pelecanus onocrotalus*) and the Dalmatian (*P. crispus*); nor, apparently, do Greek writers distinguish the Crane (*Grus grus*) from the Demoiselle Crane (*Anthropoides virgo*); though Pliny *NH* x 135 mentions 'minor grus', presumably the latter species. See Pollard 84, D'Arcy Thompson 69).

²⁰ Cf. *Peace* 1004 *χῆνας νήττας φάττας τροχίλους*.