

SUBFOSSIL BIRD-FAUNAS FROM GREECE AND TURKEY

Dr. Dénes Jánossy

Abstract

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Faunal lists of Classical Greek-Middle Age birds from Greece (Torone, Peninsula Sithonia) and of more recent ones from SW-Turkey (shore of Lake Sugla) are presented. The Greek material yielded data about the winter range of some European waterfowl (swans, Black-throated Diver, Goosander etc.) and new data about the ancient range of some other species (Great Bustard, Demoiselle Crane). In Mediterranean fossil and subfossil bird faunas the rock partridges (*Alectoris* spp.) play an important role. The hitherto known fossil, subfossil and recent distribution of this group was compiled in a range map (see fig.1).

Excavations carried out in 1990 and 1991 by the Australian Archeological Institute of Athens, under the direction of professor A. Cambitoglu in the locality Torone (southern part of the Peninsula Sithonia) yielded much osteological material aged as classical Greek to Middle Ages. S. Bökönyi, the director of the Archeological Institute in Budapest, who assisted in the excavations and in the determination of the bones of mammals, handed over to me the ornithofaunistical remains.

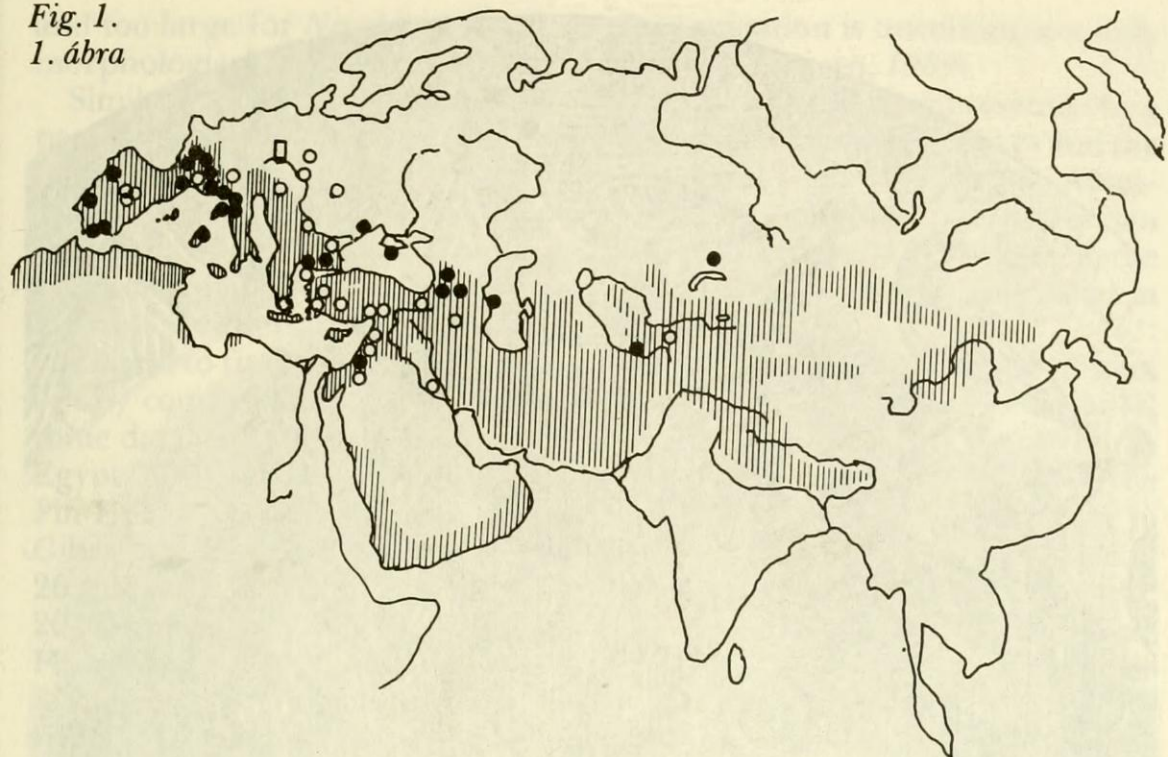
I determined the rich fauna (37 species) as follows (with the number of bones):

<i>Gavia arctica</i> (Linné), 3	<i>Aythya ferina</i> (Linné), 1
<i>Podiceps ruficollis</i> (Pallas), 1	<i>Mergus merganser</i> (Linné), 2
<i>Puffinus puffinus</i> (Brünnich), 1	? <i>Neophron percnopterus</i> (Linné), 1
<i>Phalacrocorax carbo</i> (Linné), 7	<i>Aegyptius monachus</i> (Linné), 2
<i>Phalacrocorax cf. aristotelis</i> (Linné), 2	<i>Falco tinnunculus</i> (Linné), 2
<i>Ardea cinerea</i> (Linné), 1	<i>Gallus gallus</i> (Linné), 1
<i>Cygnus cygnus</i> (Linné), 1	<i>Alectoris graeca</i> (Meisner), 4
<i>Cygnus olor</i> (Gmelin), 1	<i>Otis tarda</i> (Linné), 1
<i>Branta</i> sp., 1	<i>Anthropoides virgo</i> (Linné), 2
<i>Anser anser</i> (Linné), 3	<i>Grus grus</i> (Linné), 1
<i>Anas platyrhynchos</i> (Linné), 16	<i>Scolopax rusticola</i> (Linné), 4
<i>Anas clypeata</i> (Linné), 1	<i>Columba palumbus</i> (Linné), 12
<i>Anas aff. acuta</i> (Linné), 2	<i>Columba cf. livia</i> (Gmelin), 7
<i>Anas crecca</i> (Linné), 2	<i>Athene noctua</i> (Scopoli), 12
<i>Anas querquedula</i> (Linné), 1	<i>Asio otus</i> (Linné), 1
<i>Anas penelope</i> (Linné), 3	<i>Pyrrhocorax graculus</i> (Linné), 7
<i>Tadorna tadorna</i> (Linné), 1	<i>Pyrrhocorax cf. pyrrhocorax</i> (Linné), 2
<i>Casarca ferruginea</i> (Pallas), 1	<i>Sturnus vulgaris</i> (Linné), 30

Fig. 1. Recent distribution (hatched) and fossil-subfossil localities (full and open circles) of *Alectoris spp.* The following Upper Pleistocene - Holocene localities (open and full circles) listed below: Portugal: Grotte de Furninha (Leiria), Grottes de Fontainhas, Zambuhál (Torres Vedras, NW Lissabon) and further cca. 10 localities enumerated by Hernandez (1993), not given in the map Spain: Parrajero (Prov. Cadiz), Cerro de la Tortuga, Toscanos (Prov. Malaga), Cabezo de San Pedro (near Huelva), Cueva de Nerja (East from Malaga), Muniga-Sierra Morena, Purunella, Monachil (Prov. Granada), Motillas del Azuar (Ciudad Real), Cabo de la Nao, Sarsa (Prov. Valencia), Cabezo Redondo (near Villena, Prov. Alicante) and further cca. 80 different localities in Spain, enumerated by Hernandez (1993), not given in the map. Gibraltar: Forbes Quarry, Devils Tower France: cca. 30 Pleistocene and Holocene localities from the southern part of France, enumerated by Chauviré, 1975 (only a part of them given in the figure) Monaco: Grottes de Grimaldi, Grotte de l'Observatoire. Italy: Grotta dei Colombi, Buca del Bersaliere (Isola Palmaria, Spezia); Buca del Tasso, Caverne di Equi (Alpi Apuane) Switzerland: Burg Schiedberg (between Illanz and Chur) Austria: Drachenhöhle bei Mixnitz (near Graz); Schusterlucke (Waldviertel Niederösterreich, near Krems) Bohemia: St. Ivan cave, near Beraun Hungary: Puskaporos (Bükk-Mountains, N-Hungary), sculptures on an old Christian plate (see text) Roumania: Cvína Turcului, Casanele Mari (Iron Gate). Bulgaria: Bacho-Chiro cave (Pass of Sipka, near Kazanlik), Nikopol ad Istrum (North from Veliko Trnowo) Greece: Petralona, NE from Tessaloniki (see text); Torone; Grotte de Kitsos (Attique, Lavrion) Ukraine: Odessa (see text); Kara Koba Cave (Krim Peninsula). Turkey: Bergama (Pergamon, W-Turkey); Sugla-Lake (see text); Hassek-Höyük and Lidar-Höyük (SE-Anatolia, Valley of northern Euphrates=Firat); Elazig (E-Anatolia); Altinova (Depression between Elazig and Euphrates) Iran: Bastam; Takht-i-Suleiman (NW-Iran, Azerbaidhzan) Iraq: Uruk-Warka (Baghdad-Range) Caucasus: Treugolnaja-Cave (N-Caucasus, Urup-River); Kudaro I. (Transcaucasia, Ossetia); Gwardshilas Klde (Imeretia, between Kutaisi and the Lesser Caucasus); Binagady (near Baku, Apsheron Peninsula) Jordan: Tell-Hesban (Hisban, Hesbon, NE from the Dead Sea) Libanon: Antelias-Cave (E of Beyruth) Israel: Oum-Katafa (Range of Jerusalem-Bethlehem); Kebara-Cave (S from Haifa), 'Ubeidia (S from the Lake Tiberias, Middle Pleistocene, described as *Alectoris barjosefi* Tchernov 1980). Uzbekistan Teshik-Tash (Range of Bajsun-Shirabad=Sherabad) Kirgizia: Sjurpris-Cave (uncertain determination, Ammoperdix) Kazakhstan: Karaungur, Dshambula (N from the Lake Balhash)

1. ábra: A szirtifogoly fajok (*Alectoris spp.*) jelenlegi elterjedése (sávozott) és fosszilis-szubfosszilis lelőhelyei (fekete és üres körök). További felső pleisztocén-holocén lelőhelyek (üres, illetve fekete körök):

Fig. 1.
1. ábra



The other material, with which I wish to deal here, originates from South-Western Turkey, between Antalya and Konia, from a rock-shelter near the shores of the Lake Sugla („Sugla Gölü”). The collector in 1991 was Onur Özbek, member of the *Turkish Speleological Society* (MAD) and the material was handed over to me by *J. Hir*, paleontologist (*Museum of Pásztó*, N. Hungary), to whom are due sincere thanks. *J. Hir* determined the remains (except for birds) as follows:

Celtis caucasica

Anura indet. (predominating)

Rhinolophus hypposideros (Bechstein)

Rhinolophus euryale (Blasius)

Apodemus mystacinus (Danford and Alston)

Microtus guentheri (Danford and Alston)

Microtus arvalis (Pallas)

Capra sp.

According to literary data all the members of this list are living today in the wider territory of the locality. Thus, in the deposit of the cave this matter is rather superficial, the age may be given as „sub-recent”.

Among birds I identified the following:

Fulica atra (Linné), 2

Falco tinnunculus (Linné), 7

Alectoris graeca (Meisner), 10

Fringillida gen. et sp. indet., 2

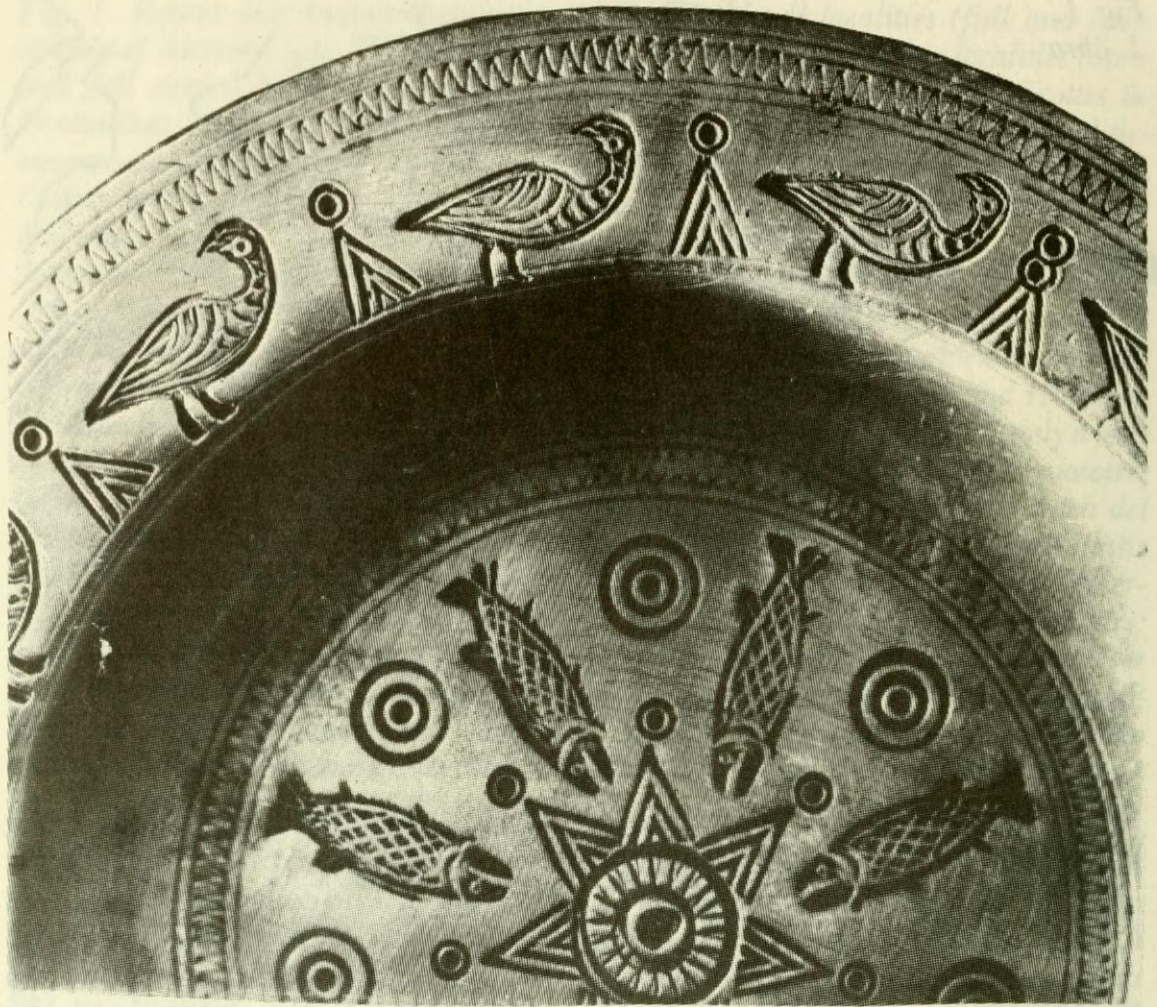


Fig. 2. Part of old Christian silver late with depiction of Rock Partridges from the 2nd century [Kismákfa, county Vas]
 2. ábra Ókeresztény ezüsttál részlete a szirti foglyok ábrázolásával. [kb. a II. századból kismákfai (Vas megye) lelőhelyről]

Considering the fact that Holocene bird faunas from the Balkans and from Asia Minor are not numerous, I wish to mention here some occurrences of species which are faunistically, ecologically and climatically significant.

All species enumerated in the list, given from Torone are nesting today or migrating through the Southern Balkans, i.e. the „mainland” of Greece. Some species on the list, noticed as new for the territory are known from the rich faunas of Crete [e.g. Shearwater and Shag, (Weesie, 1978)], – but this island has since the beginning of the Pleistocene been isolated from Greece and belongs only administratively to this country but zoogeographically is not. These are all complementary data about some species otherwise widespread in those times in the islands of the Mediterranean (Alcover-Florit-Mourer-Chauviré – Weesie, 1992).

An ulna-fragment, morphologically nearest to birds of prey, in the material of Torone, shows the features of vultures, too small for a *Gypaetus*

and too large for *Neophron*. Thus, the determination is uncertain, not only morphologically, but also zoogeographically (see *Jánossy, 1989*).

Similarly in the bone material of Torone a small crane is represented by a proximal fragment of tarsometatarsus. The morphological features and the measurement (proximal width 17.0 mm) suggest Demoiselle Crane. According to literary data this species nests today in some places in the Iberian Peninsula and in Algir and Morocco, in the eastern parts of Europe, in the Ukraine and in Moldavia. It has vanished from its former breeding range in Dobruja and Bessarabia.

I failed to find literary data about the subfossil occurrence of this species, but by courtesy of *T. Tyrberg* (Kimstad, Sweden), I obtained, with thanks, some data from the Crimea (Murza-Koba, *Grimm, 1970*) and from Gizeh in Egypt (*Boessneck, 1986*). *Cowles (1981)* gave some fossil occurrences from the Pin Hole Cave in England and Eastham (1968) from the Gorham's Cave in Gibraltar. A fragment of a tarsometatarsus of *Grus grus* (proximal width cca. 26 mm, the same measurement in my recent osteological material [n=6]: 20-22 mm) shows the usual large dimensions of the Crane in the European Holocene at all.

An entire tibiotarsus of a female of *Otis tarda* shows together with remains from the Canary Islands, from S-England, Spain, Northern Africa to Greece the wide distribution of the Great Bustard in the Holocene of the Mediterranean Area (see also *Chauviré, 1981*).

Torone yielded the remains of the two chough- (*Pyrrhocorax*) species, – also at first in Greece, – these are winter visitors to the cliffs of sea-shores, and are otherwise rather members of the fauna of high mountains.

Last but not least I wish to deal with more details concerning the origin and diffusion of the rock-partridges (*Alectoris spp.*), – in time and space, – predominating in the fauna of the shore of Sugla-Lake and always present in the Greek Holocene at all.

The number of occurrences gathered together to such a degree means that we can orientate ourselves on this matter. I deal with the different species of *Alectoris* (considered in the recent literature often as „semispecies“) as a homogenous unit, because the climatical-environmental demands seem to be very near for the different forms (*Alectoris graeca, kakelik, barbara, rufa* etc.). All are considered as mediterranean (turkestanian) elements of the European bird fauna. To evaluate relationships I compiled an area map of the recent, subfossil and fossil occurrences of rock-partridges (without the aim of completeness!). The data from Asia are partially uncertain and therefore to be considered only as a sketch.

According to our present knowledge *Alectoris* seems to be absolutely native in Europe. This statement is supported by Upper Miocene *Alectoris bavarica* *Ballmann 1969*, relatively very north (49°N) in Germany. This follows the Lowest Pleistocene remains from Odessa: *Alectoris pliocaenica* *Tugarinow, 1930*. In the Lower Pleistocene *Alectoris* was seemingly widespread in Europe, the remain of Senèze (*Stehlin, 1923*) is proof of this. In the Lower-Middle Pleistocene there are findings from France (8–10 localities,

Alectoris graeca mediterranea and *A.g. martelensis*, Mourer-Chauviré, 1975), Greece (Kretzoi, 1977) and the Northern Caucasus (Baryshnikow-Potapowa, 1992).

According to the lists of Lambrecht (1933), Brodkorb (1964), Burchak-Abromovich (1975), Piehler (1976), Mourer-Chauviré (1975) and much scattered literary data (in some territories the great number of localities was not possible to represent – e.g. in France or Spain, see Fig. 1., and in the eastern part the picture is only a row sketch!) the main area of the range has since the Pleistocene the Mediterranean territory. Somewhat enigmatic but very few points are the occurrences in the Holocene of St. Ivan-Cave near Beroun, Bohemia (cca. 50° N) and in the „mixed” matter from the Schusterlucke, Waldviertel Nieder-Österreich (48°30'N) and the Holocene of the rock-shelter Puskaporos (48°07'N) in N. Hungary. Otherwise it should be mentioned that rock-partridges are absent not only from the northern parts of Western Europe, but also from Hungary and the whole of the Southern Russian Plain (Woinstwenskij, 1967).

Alectoris species have been since the earlier Holocene a convenient food and later pet species strongly connected to man and a puzzling picture of introduction in Europe can be registered. There are in the literature data about the successful introduction to Great-Britain in the 18th century (54°-55° N), to Germany, Valley of Mosel, 16th century (50°20'), the Crimea and many Mediterranean islands (as well as the Canary Islands, Azores, Madeira etc.), Alcover et al., (1992) assume that the lack or very late appearance of the rock-partridges in Mediterranean islands, – today nearly all populated by these birds, – is connected to artificial introduction by man.

Searching for archeological data, I found an interesting item. In Western Hungary, Kismákfa (County Vas) an early Christian silver plate was found (10 cm diameter) with thirteen engraved, absolutely well identifiable rock-partridges. The exact location and origin of the silver plate is unfortunately unknown. According to archeologists, these may be the symbols of the twelve apostles and of Christ (one symbol is different from the others, Thomas et al. 1980).

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Szubfosszilis madármaradványok Görög- és Törökországból

Dr. Jánossy Dénes

A Földközi-tenger medencéje keleti részének szubfosszilis (az elmúlt 10000 évből származó) madárfaunájáról szóló ismereteink meglehetősen hézagosak. Éppen ezért jelentős az Akadémiai Régészeti Kutatóintézetől hozzám feldolgozásra eljuttatott – Sithonia görög félszigetről származó –, klasszikus görögközépkori időkből származó anyag. Feltűnő a fajok nagy száma (37 faj, lásd a listát az angol szövegben), melyek

jelentős része vonuló vízimadaraktól származik (pl. hattyúk, sarki búvár, nagy bukó) továbbá egyes alakok egykori elterjedéséről ad kiegészítő információt (pl. túzok, pártás daru).

A másik itt tárgyalásra kerülő anyag DNY-Törökországból származik – *Hir Jánostól* került a Magyar Természettudományi Múzeumba – és inkább szórványeletnek tekinthető. Két európai faj mellett a szirti fogoly leletei dominálnak. Ez utóbbiakkal kapcsolatban összeállításra került az 1. ábrán valamennyi eddig leírt szirti fogoly (*Alectoris spp.*) jelenlegi elterjedése, ami függőleges sávozással szerepel. Fehér téglalap az egyetlen miocén, fekete körök a pleisztocén, üres körök a holocén előfordulásokat jelzik. Az előfordulások nagy száma miatt Európában csak azok egy része van megadva. Az ázsiai előfordulási pontok csak jelzésszerűek és sokat nem mondanak, ezért kissé bizonytalan az a megállapítás, hogy a szirti foglyok Európából erednek, és mindig is a Mediterráneumhoz voltak és vannak kötve. Az összeállításnak érdekes hazai vonatkozása is van: biztos csontlelet hazai előfordulása nem ismert (bizonytalan a bükki Puszkaporos-Kőfülke adata), de a dunántúli Kismákfa római kori régészeti maradványai közt került elő egy ókeresztény ezüst tál, melyen Krisztus és a 12 apostol jól felismerhető szirti foglyok által van szimbolizálva (*Thomas et al. 1980*). A tál biztosan nem hazai eredetű a régészek szerint.