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First data on the Avifauna of Rhodopos Peninsular (W. Crete)

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This work gives data on the bird species that were observed during automn 1987 and spring 1988, throughout the peninsular of Rhodopos and the exact dates of observations.It is connected with a conservation program titled:"Registration of the wetlands and the other important bird areas of Crete"(University of Patras).

The Rhodopos peninsular is situated on the northwestern part of Crete.There are only some villages at the base of the peninsular and the rest of the area is deserted.The peninsular is crossed by some rural roads,one of them leads to the onyx mine.The grazing is intense but no other activity seems to disturb the area.

The highest hills are Onyx (748m) and Mouri (747m).

There are five basic types of biotops that we encountered:
A) Areas around human habitation with gardens,fields,hedges etc.
B) Rocky and earthy coasts and ravines.C) Semi-abandoned fields, meadows.D) Territories dominated by maquis and phrygana.E) Small forests by Querqus sp.

Among the above mentioned species,some are winter visitors,others are residents and most of them are passage migrants and summer visitors.

Comments

This is the first time that a study of the avifauna of Rhodopos peninsular is to be attempted.It seems to have a great importance for the migration of birds,as it serves as a restiring and feeding station for them.The number of migratory birds which were observed during our visits proves that it is situated on a migration road passing from Crete and continuing either to Kythera-Peloponnisos or to Cyclades.

The variety of biotops is adequate for the migration and probably breeding of passering birds.

The absence of human activities (out of grazing) establishes the peninsular ideal for the feeding and migration of raptors.We observed 7 species of raptors,5 of which are endangered and protected by the directive 74/409/CEE.

The list of the species and the dates of observations

1.Egretta garzetta(B)2/10,20/4
2.Buteo buteo(F)22/4
3.Buteo rufinus(F)22/4
4.Aquila chrysaetos(F)22/4
5.Gyps fulvus(F)22/4
6.Hieraaetus pennatus(F)22/4
7.Pandion haliaetus(F)22/4
8.Falco tinnunculus(F)22/4
9.Alectoris chukar(D)22/4
10.Coturnix coturnix(D)22/4
11.Larus argentatus(F)3/10,20,22/4
12.Streptopelia turtur(E)22/4
13.Apus apus(A)20,22/4
14.Upupa epops(D)22/4
15.Oriolus oriolus(D)22/4
16.Anthus pratensis(C)22/4
17.Delichon urbica(A)20,22/4
18.Hirundo rustica(A)20,22/4
19.Corvus corone cornix(F)20,22/4
20.Corvus corax(F)3/10,22/4
21.Troglodytes troglodytes(B)22/4
22.Galerida cristata(C)20,22/4
23.Lullula arborea(C)22/4
24.Passer domesticus italiae(A)3/10,20,22/4
25.Muscicapa striata(C)22/4
26.Ficedula albicollis(D)20,22/4
27.Ficedula hypoleuca(D)20,22/4
28.Cettia cetti(D)20/4
29.Sylvia melanocephala(D)20,22/4
30.Sylvia hortensis(D)22/4
31.Phyllosc. collybita(E)20,22/4
32.Saxicola torquata(D)22/4
33.Saxicola rubetra(C)22/4
34.Phoenicurus phoenicurus(G)22/4
35.Phoenicurus ochruros(D)22/4
36.Oenanthe oenanthe(C,D)20,22/4
37.Oenanthe hispanica(C)20,22/4
38.Erithacus rubecula(A)20/4
39.Luscinia megarhynchos(D)22/4
40.Turdus merula(D)20,22/4
41.Turdus philomelos(E)20/4
42.Monticola solitarius(B)20,22/4
43.Parus major(A,E)3/10,20,22/4
44.Fringilla coelebs(A,D,E,)20,22/4
45.Carduelis chloris(A)22/4
46.Card. carduelis(A,D,E)20,22/4
47.Acanthis cannabina(D)20,22/4

A,B,C,D,E : Types of habitats encountered,see preceding page.
F : The birds were observed only in Flight.

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Morphological differentiation in Albinaria populations (Gastropoda, Pulmonata) from the Aegean Region

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Data have been assembled on 36 different quantitative characters (mainly different lengths and angles of the shell) for 18 populations belonging to 8 species of the genus Albinaria. In every population 20 individuals were measured. The populations were collected from several localities in the Cyclades, in Ikaria, Psara and Crete islands and Mt. Hymettus. The dendrogram, based on these measurements, did not coincide with the one provided from the electrophoretic study of 27 genetic markers. (Mylonas et al 1987, Ayoutanti et al 1987, Ayoutanti et al, in this issue). The genetic markers permitted the construction of a tree reminding grossly the actual geography and probably having a good correspondance with some paleogeographic aspects, thus indicating that the information they conveyed is related to historical processes rather than to ecological similarities. The morphological characters seem to depict these last ones, since they provide a "patchy" tree, without correspondance to the actual geography neither to the presently accepted taxonomic delineations of the Albinaria species. A further analysis of the morphological characters was pursued.

Morphological characters could be strongly correlated. From the inspection of all possible correlations, we were able to join them in 6 groups. Members within each group are correlated but there is no correlation between members belonging to different groups. There are two major groups. The first consists of most of the length measurements and the second of most of the angle measurements. Thus all 36 measurements should not be taken as independent (all of them providing the same amount of information) when considered in their totality.

Inspite of the apparent discordant results between electrophoretic and morphological data we decided to investigate the possible concordance of every morphological character apart with the pattern exhibited by the electrophoretic data. Correlation coefficients were computed first between the distances provided by the electrophoretic data (genetic distances) and those with every morphological character, then between the value of the first principal component of the electrophoretic data (this component exemplifies even more closely the "historical" pattern) with the mean value of every morphological character at a time. Three characters only showed moderate correlations (0.25 to 0.52) in both series, with electrophoretic data: the angle of the apex of the shell and two (correlated between themselves) measurements of the prolongation of the shell mouth. This should not necessarily be interpreted as originated by a historical process: the correlation is not very strong and the electrophoretic pattern indicates a loose east to west pattern which could be related to an ecological gradient.

On the contrary correlations between geographic latitude and mean values for every morphological character were stronger for two of them: the angle formed by the suture of the last whorl and the axis (0.49) and the number of stries per mm (-0.61). For this last character smooth shells (without stries) are commonest in the north, while striated ones in the south. The same gradient is encountered in altitude. It is quite probable that these gradients are the result of natural selection. For the exact mechanism of its action several hypotheses could be formulated.

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