SOME THOUGHTS ON THE ESTABLISHMENT OF A DOCUMENTATION CENTRE FOR THE GREEK FAUNA

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LEGAKIS: During the last years the research on the greek fauna has increased considerably. An increasing number of greek and foreign researchers study the greek zoological domain.Characteristically, during the five years between 1971 and 1975 there were 416 articles published in greek and foreign journals and written by 295 scientists, number which represent an increase of 33% and 35% respectively from the previous five-year period. These papers cover a large field, from the description of new species up to the control of pests and from animal ecology up to biometrics. Since the fauna of Greece is increasingly in danger from the pollution and the destruction of the environment and from the lack of effective protection and since the protection of crops from their natural enemies is still carried out without adequate planning, any attempt for covering the gaps is a positive contribution. However, the lack of coordination between the scientists, and of an organised collection and processing of the data that are included in these articles, hinders the full exploitation of the benefits, with consequence that many useful data are lost. Such a coordination and planning could lead to the concentration of all data and to a furthermore possibility of an application of more complete scientific and social policies in fields such as the protection of the environment and agriculture, fisheries and public health. The organised work can be carried out by a centre that will have as its aim, the collection, the storage and its processing of informations around the greek fauna. The present study tries to describe the basic ways with which such aims can be reached and examines the possibility of the establishment of such an organisation in Greece.

The whole process of dealing with faunal data can be divided in to these stages : collection, storage and final processing.

A) *Collection*: The collection of data about a regional fauna can be carried out in two ways : either the relevant literature or an actual examination of the material.

The collection of data from the literature needs a) the presence of a complete list of all relevant to the fauna articles that have been published up to date. Such lists for Greece exist for the periods 1800-1950, 1950-1960 and 1960-1966 by Prof. A. KANELLIS and Dr.

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HATSISSARANTOS and a list for 1967-1977 is already in preparation. There are also lists and reviews of articles in "Biologia Gallo-Hellenica" and finally in two government publications, one by the Ministry of Agriculture on applied entomology and zoology and another by the Ministry of Culture and Sciences on the environment.

As far as the future possibilities are concerned, the basic abstracting journals on zoology such as "Biological Abstracts", "Zoological record", "Revue of Appl. Entomology", "Entomol. Abstracts", "Aquatic and fisheries Abstracts," "Bulletin signaletique", and others, can be easily found in Greece. Therefore we can consider that in the future the recording of articles will not be a difficult task for a group of people.

b) The capability of collecting all these articles. As far as the recent and the future articles are concerned they can be requested from the authors. The older ones can be found in the hands of researchers who can provide photocopies. Others can be traced in libraries that can also provide them.

c) A small group of people for the filing of data on cards.

The collection of data by actual examination of the material can be carried out: I) From museums or private collections that contain material from Greece. These museums and the owners of the collections can be traced and asked to provide, if they have, these data. We must note the presence of private collections in Greece whose coordination has never been attempted. II) From research in the field. Groups of people having the necessary knowledge of the subject should be organised to carry out studies of the local faunas. Since under the present conditions in Greece this is very difficult, the only thing that could be possibly be done is contacting local organisations, schools, agricultural bureaus etc through simple questionnaires. An organised research can be complete only when suitable and simple keys are published in greek and only after the interest for biology has grown considerably in Greece, that a sufficient number of scientists can be found to cooperate on this subject.

B) *Storage:* The data that can be produced about the fauna can be of various forms : species, place and date of collection or observation, physical, chemical and biological factors, habitat, age, stage and many more. All these must be stored in a way so that they can be

easily retrieved. The storage of information can be accomplished in two ways, either on cards or in computers. The second method is much faster and easier to use but it needs the presence of suitable equipment and specialised personnel which at this moment are very hard to find and very expensive in Greece.

The storage in cards is a time consuming work especially when the data are numerous. However one can start from card filing and when conditions are ripe for the use of computers the transfer to them will not face unsurmountable problems. In each card, the species, place and date of collection, habitat, name of observer and all the rest can be noted, and using this card file as a basis, various indices can be formed for whatever kind of further processing is needed.

C) Processing: The aims of the collection of data about a fauna can vary widely. Basically they start with the formation of a list of Greek species. If the collection of data is complete, such a list is not difficult to appear, especially if work is carried out on animal groups. Already there are such provisional lists and I can mention among others the vertebrates, the protura, the trichoptera, the orthoptera, the lepidoptera. After such a list, work can continue to the search for the occurence of a species at a particular time in a particular place, that is the formation of distribution maps, exact localities for particular species and lists of species from particular localities. Such a study as well as more complete studies from zoogeographical and ecological points of view need more specialised personnel and the additional data that were mentioned previously. The collection of zoogeographical and ecological data, apart from its purely scientifc value, helps the monitoring of the condition of the fauna, especially for species in danger of extinction and needing protection, as well as for species that are harmful of beneficial for agriculture, fishing and public health and the pollution of the environment. Up to now the processing of data has been carried out on a very specialised level and only whenever the need arises as for example in the case of the olive fruit fly, or other pests, or whenever there is interest on a personal basis : Such detailed work can forsee the various changes that can take place within a fauna and that can have serious effects on the economy.

Under the present conditions in Greece, the only thing that can be done is a centre such as the one mentioned in the beginning to give a spark or push to the specialised researchers so that they can collect

the data that they have in the form of simple keys, lists of species, distribution maps, bibliographies and whatever other form might promote the further study of the subject.

Finally and taking into account all that has so far been said, we can summarize the possibilities that exist today in Greece regarding the formation of a centre for the processing of biological data. A small group of researchers, can record the bibliography from the abstracting journals, and request the articles from their authors and from libraries or other relative organisations. At the same time the group can come in contact with museums and owners of private collections that contain greek species as well as scientists that come to Greece in order to study and collect greek material. It can also start forming questionnaires relative to local fauna to be sent to agricultural stations, schools, natural history societies and other local authorities and organisations. All the data that is collected can be stored in cards. Finally, specialised scientists can be requested to make keys, lists of species and other such condensed works. For some animal groups such as the vertebrates and the lepidoptera where work has advanced, the processing in collaboration with the specialised scientists can proceed in depth.

This centre can start its functioning either under an existing organisation such as the department of zoology of the Universities or the biological unions or societies or it can be started separately by the people interested and request financial and practical assistance from the government, the Universities or the organisations. The only thing that is needed is sufficient interest from a lot of people in order to set the first stones on which a correct organisation can be built to study in more depth and detail the fauna of Greece. It will be for the benefit of all of us and especially of the greek fauna itself.

ASPÖCK: I think this is a very good basis for a discussion. The most important questions: Who will carry out this project and, are the methods proposed by you really the best ones?

MATSAKIS: Il me semble que l'on a bien fait le tour de la question. Personnellement, je releverais 5 points, qu'il me semble utile d' aborder successivement. 1°. Est-ce qu' il y a des systèmes qui fonctionnent efficacement et dont l'utilité a pu être appréciée par les scientifiques? 2°. Dans le cas de la faune de Grèce, quels