

## FOREWORD

The present special volume of *Acta Theriologica* represents the proceedings of the meeting "Ecological Genetics in Mammals – Current Research and Future Perspectives" held at the University of Łódź in the first week of September 1992. It was the aim of this meeting to bring together mammalogists with special interest in population biology and population geneticists working with mammals in order to exchange ideas and to promote the development of concepts for interdisciplinary studies on mammalian populations. Having received most of the titles for presentations we recognized that the interests of the various contributors concentrated on three major items: The association of genetic diversity with morphological variation and developmental homeostasis, the relationship between genetic variation and social organization, and the various genetic problems associated with the preservation of populations and species. The theoretical and empirical contributions to the first of these topics led to the conclusion that in spite of considerable data sets available at single organismic levels (e.g. various kinds of morphological characters, proteins, mitochondrial DNA) the degree of correspondence of variation among characters is still poorly known. Ambiguity in interpreting results of the comparatively few interdisciplinary studies available so far arises to a remarkable extent from insufficient comparability of data. Detailed knowledge about the representativeness of the various 'marker systems' used for assessing overall genetic variation of populations is an essential prerequisite for the biological relevance of studies in conservation genetics. The data presented at this meeting demonstrated that rather than overemphasizing a particular approach being in fashion at the moment, a differential and problem oriented application of the various molecular tools available is the method of choice. Furthermore, although a comparatively large number of mammals already proved to be genetically depleted, interdisciplinary studies evaluating the biological consequences of reduced genetic variation are largely lacking. The urgent need for sufficient comparable data in marker systems used for characterizing genetic variation within and among populations became most obvious in the section devoted to relationships between genetic variability and social organization. Too many fascinating theoretical considerations await to be tested by synoptical empirical approaches. Needless to say that the results obtained from investigations in each of the three topics emphasized here have considerable implications for the two other fields and a lot of additional disciplines. We sincerely hope that the kind of meeting reported here provided some profit for all participants and we are planning to make it a *jour fixe* for all colleagues interested in interdisciplinary population genetic studies in mammals every two years.

Since not all oral presentations of the past meeting were made available for publication by the authors, some papers in the present volume were invited on decision of the editors, taking into account the relevance of the respective contribution for the general topics concerned. Finally, the editors would like to express their sincere thanks to all the colleagues having assisted in bringing about this special volume of *Acta Theriologica*.

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