



**THIRD ORDINARY GENERAL MEETING
OF SOCIETAS HERPETOLOGICA EUROPAEA**

INFORMATION – PROGRAMME – ABSTRACTS



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The processes of extinction among continental vertebrates during transition period from the Cretaceous to the Palaeogene

1. Extinction during transition period from the Cretaceous to the Palaeogene was markedly selective. New groups of animals of "cenozoic" type were formed long before the end of Cretaceous. Lizards are known since the end of Permian, bony fishes, mammals and lizards of "recent" type since the end of Trias, insects of "cenozoic" type and placental mammals since the Middle Cretaceous. 2. Extinction in the Late Cretaceous did not occur in all groups of the terrestrial vertebrates. Lizards, crocodiles, champsosaurs, and mammals survived in the Palaeogene without any basic changes. In four of the seven main groups of dinosaurs, viz. in prosauropods, sauropods, ancylosaurs, stegosaurus, extinction processes began long before the end of Cretaceous. 3. The fact that the large poikilotherm reptiles like crocodiles and champsosaurs that had been long co-existing with dinosaurs survived in the epoch without any drastic changes disproves the hypothesis that a short abrupt cooling occurred as a result of fall of asteroids during the transition period from the Cretaceous to the Palaeogene. 4. On the whole, the pattern of biota evolution during the transition period from the Cretaceous to the Palaeogene has more in common with ecological replacement of some groups by other ones than with a drastic extermination of groups and formation of other ones under conditions of ecological vacuum.

TRUEB, L. and CANNATELLA, D. - Lawrence, USA

Relationships of recent pipoid frogs

Analysis of primarily osteological data from the genera of pipoid frogs /families Rhinophrynidae and Pipidae/ suggest that monophyly of the family Pipidae is strongly supported. Each of the genera studied seems to be monophyletic. Within the family Pipidae, Hymenochirus is related more closely to Pipa than Xenopus, in contrast to published evidence from the larvae. The monotypic family Rhinophrynidae is the sister-group to the Pipidae. Although published data from the larvae have suggested a well-corroborated monophyly for the Pipoidea, this claim is supported only weakly by characters from the adults. Pipoid frogs may be related most closely to some members of the Pelobatidae.

TUNIYEV, B.S. - Sochi, USSR

Sympatric amphibians of the Yew-box Groove

Seven sympatric amphibian species of Yew-box Groove in Chosta /Triturus vulgaris, T. vittatus, Bufo bufo, Pelodytes caucasicus, Hyla arborea, Rana ridibunda, R. macrocnemis/ were examined. According to Pianka /1969, 1981/, the species diversity results from their division and replacement in

three general niche dimensions and species differences are grouped in certain combination /Ananjeva, 1972, 1981/. Species studied are characterized by different biotopical /choice of breeding summer and wintering biotopes/, seasonal /and daily/, and food niches. The overlap of the seasonal and daily utilization of the common resources, the overlap of the food resources and the predation at different developmental stages have been found. - The hydrological regime is the main factor which determines the distribution and reproduction of the amphibians in Yew-box Groove. The temperature of the ponds is also an important factor responsible for the distribution in the micro-biotopes which influence on the reproduction periods. The relief and the light are of great importance for the existence of the amphibians, too. The diversity of the grooves biotopes and very specific responses of amphibians at a considerable ecological valence of many species promote sympatry of 7 species over a limited area."

UTESHEV, V.K., SHUBRAVYI, O.I., SERBINOVA, I.A., GONCHAROV, B.F. - Moscow, USSR

Breeding of rare amphibian species in captivity

The breeding and maintenance of some amphibian species in captivity can resolve the problem of amphibian disappearing in nature, as well as to satisfy the requirements on the species massively withdrawn from the natural populations with economic teaching, research, and commercial purposes. It has been shown during the first stage of the practical realization of this program that over 30 species of amphibians of different ecological groups can be successfully maintained in captivity under adequate conditions. Moreover, using the hormonal stimulation /with synthetic analog of luliberine for Anura and chorionic gonadotropin for Urodela/, we have obtained the spawning for the following species: Bufo viridis, B. marinus, B. calamita, Bombina bombina, B. variegata, B. orientalis, Rana temporaria, Hyla arborea, H. septentrionalis, H. caerulea, Pelobates fuscus, P. syriacus, Triturus vulgaris, T. cristatus, T. vittatus, T. alpestris, T. montandoni, T. helveticus, Hynobius keyserlingi. In some of the mentioned species, healthy offsprings were obtained and reared through metamorphosis; the species underlined twice were reared through two or more generations. The rearing of young at room temperature and food availability permits to shorten markedly the period of sexual maturation as well as to obtain more than one spawning during the year from seasonal breeders.

UTESHEV, V.K. and VASSILIEV, B.D. - Moscow, USSR
Fire-bellied toads' hybridizations in experimental conditions

In experimental conditions the offspring was obtained from all 9 possible combinations of parents' pairs. Adult animals were stimulated with the chorionic gonadotropin in the quantity of 100-120 units per animal. This resulted in normal development of vocal reactions and amplexus in males and ponding of mature eggs in females. The percentage of fecundated eggs in mixed pairs