

**Conference Report:**

**Species differentiation of fishes in tropical lakes  
— The Seventh MEDAKA Symposium —**

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This meeting was the seventh MEDAKA Symposium which has been annually held since 1987 (Fish Biol. J. MEDAKA 4: 49). The title of the present symposium was originally brought to us by the late Professor Uwa of Shinshu University, who had organized an international research group on "Phylogeny and species differentiation of *Adrianichthyoidei* in Indonesia" supported by a grant under the Monbusho international science research program (1992–94).

Seven species of *Oryzias* fishes, about half of the genus, as well as three *Adrianichthyoidei* species, inhabit separate lakes in the Sulawesi island in Indonesia. There is no other place where so many *Oryzias* species live in such a restricted area, and therefore it is very interesting to study the phylogeny and speciation of these fishes in Sulawesi. With this in mind, Dr. Uwa organized the research group to survey the fishes and to analyze their different environments in Sulawesi. In this symposium, the results of the research program were reported, and the research on the fishes in Lake Tanganyika in Africa was also introduced. On the basis of these reports, the mechanism of the formation of a highly diversified fish community in the tropical lakes was discussed.

With 51 people in attendance, presentations and discussions were carried out under the chairmanship of Professor Iwamatsu of Aichi University of Education as follows.

The characteristics of inland water in Sulawesi island as habitats of *Oryzias* fishes. (T. Okino, Shinshu Univ. and C. Sihotang, Riau Univ., Indonesia)

Distribution of the inland water fishes and the *Adrianichthyoidei* of Sulawesi island, with special speculations upon the endangered species situation in lake Poso. (B. Soeroto, F. Tungka, and E. Reppie, Sam Ratulangi Univ., Indonesia)

Phylogeny and species differentiation of *Oryzias* fishes in Sulawesi island. (K. Naruse, Tokyo Univ., M. Sakaizumi, Niigata Univ., A. Shima, Tokyo Univ., H. Uwa, Shinshu Univ.)

Species differentiation and evolution of nursing behavior of Cichlid fishes in Lake Tanganyika. (T. Kuwamura, Chukyo Univ.)

Drs. Okino and Shihotang reported the limnological characteristics of lakes and rivers in Sulawesi and indicated a highly divergent nature of these inland waters. Drs. Soeroto, Tungka, and Reppie demonstrated the results of the survey of *Adrianichthyidae* fishes on Sulawesi island and illustrated the distribution of these fishes. Drs. Naruse, Sakaizumi, Shima and Uwa clarified the phylogenetic relationship between 11 species of fish (7 *Oryzias*, 3 *Xenopoecilus*, 1 *Adrianichthys*) based on the nucleotide sequence of the two mitochondrial genes, cytochrome *b* and 12S rRNA. Dr. Kuwamura is a member of another international research group which has been organized by Professor Kawanabe of Kyoto University on the ecological study of Cichlidae fishes in Lake Tanganyika. Dr. Kuwamura introduced the diversified nature of the fish community in the lake, and then he discussed about the evolution of nursing behaviors in Cichlid fishes compared with their phylogeny.