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SOUTHEAST ASIAN FRESHWATER FISH DIVERSITY

FOREWORD

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The last 15 years have witnessed a strong increase of ichthyological research in Southeast Asia. On the 16th June 2005, a checklist of the fishes recorded from the inland waters of Southeast Asia includes 6,313 nominal species, of which 2,681 are considered valid (Kottelat, unpubl.). The covered area extends from the Irrawaddy to the Red River drainages (from the sources to the estuaries), Indonesia (except Irian Jaya), the Philippines, and Andaman and Nicobar Islands; inland waters include estuaries in which may flow some marine water such that a number of species which are only occasional or accidental visitors in inland waters also appear on the list.

The exploration and discovery phase is still far from complete. Out of these 2,681 species, an estimated 400 species new to science have been described since 1990. Several hundreds still await discovery or are already present on museum shelves and should be formally named in the near future. Descriptions of 23 new taxa are published in the present volume.

Exploration is not restricted to the discovery of new fishes, but also includes, among others, inventories of poorly known areas, the study of habitats with unique ecological functioning or biological processes, and observations on the ecology, behaviour or life cycles of the fishes.

The Raffles Museum of Biodiversity Research has developed as an important player in the documentation of Southeast Asian fish diversity, as demonstrated by the growth of its reference collection and numerous publications. The present issue of the *Raffles Bulletin of Zoology* illustrates the main domains of ichthyological activities of the staff and associates of the museum, or based on the museum holdings.

This volume starts with a translation in English of a paper in which Pieter Bleeker described the genesis of his *Atlas ichthyologique*. Bleeker can be regarded as the founder of Southeast Asian ichthyology and this paper is important to understand how the *Atlas* was prepared. An important but largely overlooked piece of information is that the plates of the *Atlas* are often not based on the type material, or may even be based on several specimens.

Several of the present articles describe new taxa; one is a monographic treatment of the fighting fishes of Malaysia, Singapore and Brunei; and one documents the diversity of labyrinth fishes of Sumatra. Two contributions report on results of surveys of the Rajang River and the Kapuas Lakes, both on Borneo. These surveys result in a sharp increase of the number of species known from their respective basins.

The Kapuas Lakes survey also includes information obtained from the local fishermen on food, reproduction and habitats of most species, as well as their use by the local population, including a recipe of *Sundasalanx* crackers. *Sundasalanx* are quite typical of the state of our knowledge of many Southeast Asian fishes. They are tiny, transparent fishes observed throughout Southeast Asia. In suitable habitats they can be extremely abundant, to the point that special nets have been developed to catch them. Despite this abundance, they became known to science only in 1981.

At the other extreme of the size ranges, *Himantura chaophraya*, a 2-meter diameter stingray of the Mekong basin, was already reported in 1885 but has only been rediscovered by science and formally named in 1990. These two examples illustrate that our knowledge of fish diversity is still poor and that its exploration is still a promising field …. if fishes survive the on-going large scale destruction of their habitats.