BOOK REVIEWS

greater vigour. Obviously, the jury is still out on this critical issue.

Finally, guppies have provided valuable support to the idea that the evolution of female mating preferences and male sexual traits are interdependent. These two traits have thus tended to evolve in parallel across populations and covary genetically within at least some local populations. This is, however, in striking contrast to certain other species of fish like the swordtails or the Tungura frog where female preferences and male traits do not coevolve but arise independently. A triumph, once again, for biology – the science of diversity – that stubbornly refuses to be reigned into conformity.

Anne Houdé concludes her labour of love with an excellent chapter that summarizes succinctly our current state of knowledge about mate choice and sexual selection in guppies, and frankly highlights the glaring lacunae that have yet to be filled in. We still need to discover, for example, the sensory basis for female mating preferences, the behavioural rules that females use in selecting their mates, whether female mating preferences invariably lead to sexual selection on male traits, and, perhaps most surprising, the underlying reason why guppy colour patterns are so polymorphic. She also includes an appendix that provides practical details for designing tests for mate choice experiments and outlines methods for measuring male colour patterns and mate mating success – a most welcome addition to this excellent treatise.

Houdé’s own work addresses a number of areas that are of interest in sexual selection, including the remarkable degree of plasticity and evolutionary liability of sexual behaviour in guppies, geographic variation in mating preferences, possible mechanisms for the evolution of female mating preferences, and the role of sexual selection in speciation. Given her remarkable range of research interests and,

above all, her love for this small unique fish swimming actively in the sun-drenched shimmering waters of a Trinidaid stream, it is not surprising that we have here a brilliant account of a model system – a must for the bookshelves of both, a student of sexual selection as also the mature guppy researcher.

Anindya Sinha
National Institute of Advanced Studies,  
Indian Institute of Science Campus, 
Bangalore 560 012, India


In the context of India’s commitment to inventory, monitor and conserve our precious faunal diversity, the Environmental Information System (ENVIS) Centre on Faunal Biodiversity, set up by the Ministry of Environment and Forests, Government of India in the Zoological Survey of India (GSI) at Calcutta, has taken up this stupendous task of collecting and collating the available information as a state-of-the-art publication on Faunal Diversity in India as a commemorative volume in the 50th year of India’s independence.

This is a sequel to the pioneering attempts by the Zoological Survey of India on two previous significant publications, viz. The State of Art Report: Zoology and The Animal Resources of India in 1980 and 1991, respectively. A total of 57 articles contributed by experts provides an up-to-date information on the status, distribution, biological diversity, endemism, value, threats and conservation strategies of protozoa followed by all over phyla of the animal kingdom. Each chapter is appended by selected valuable references pertinent to the respective group. These accounts are preceded by an overview of faunal diversity incorporating information on biogeographic zones and biotic provinces in India, estimated number of described species with estimated percentages of endemism, as well as the number of experts both in and outside the ZSI on different faunal groups. A one-page black and white figure in a blue background giving an idea of morphological dimensions of the respective taxa adds to the value of the book.

It is unfortunate that, in spite of painstaking efforts by the editors, omission of some important groups like e.g. Ephemeroptera (mayflies) is conspicuous. I hope this will be included in future publications.

This compendium is a veritable source of reference for teachers, researchers and environmentalists, who are committed to check the continuous and ongoing depletion of valuable faunal diversity due to natural and man-made impacts on their habitats and life history.

K. G. Sivaramakrishnan
Department of Zoology, Madura College, Madurai 625 011, India