

of crocodylians. We are also told that snakes "spend most of their time half-asleep, and the only stimuli that can rouse them from their state of torpor are hunger-pangs (due to a previous period of fasting, due in turn to laziness) and sex".

On the other hand, there is no serious discussion of the physiological significance of cutaneous respiration in Amphibia; the origin of the cleidoic egg is barely mentioned; adhesion of the gecko's foot to smooth surfaces is explained without reference to friction; the ability of *Chrysopelea* to glide is stated without comment; and physiological thermoregulation in reptiles barely mentioned. The problem of the coloration of coral snakes is not analysed and no reference is made to Mertensian mimicry in this context. Nor can I accept the argument that, as the colours of chameleons are most cryptic when the animals are relaxed, their function is not so much for defensive reasons, but rather to give them a chance to attack a prey unseen.

Portraits of the Lepidoptera

"KILL not the moth nor butterfly" wrote Blake, and three recently published books reviewed here echo his sentiments, though they are in defence of conservation (or just sheer artistry) rather than because "the Last Judgment draweth nigh". All three have superb illustrations and none refers to the killing bottle or setting board.

Robert Goodden's *British Butterflies: A Field Guide* (David and Charles: Newton Abbot and London, £4.50) is perhaps the best organised. It really is a field guide, and starts with a section on the life-cycle, breeding and conservation of British butterflies, and one can see from it how much there is still to be learnt about their habitats. Every species is photographed alive and with each there is a rough distribution map. For the beginner difficulties of size are overcome by the charts at the front and back of the book, which show the insects (the common ones at the front and the rarer ones at the back) at approximately three-quarters their size. There is advice on how to encourage butterflies to visit gardens and an exhortation for the enthusiast to join the British Butterfly Conservation Society in Leicestershire. The book is for the uninitiated of all ages, and for the old hand is a "must" simply for the breathtaking photographs.

Umberto Parenti, in *The World of Butterflies and Moths: Their Life-Cycle, Habits and Ecology* (Orbis: London, £5.95) looks at some of the many facets of the world of butterflies and moths. The photographs are of unbelievable beauty, and it seems churlish to have to criticise them by saying that they are arranged

The two sections into which the book is divided are provided with introductions which explain clearly how each class has evolved to its present status. These sections are followed by accounts of structure, physiology, reproduction, behaviour, ecology, and classification. A detailed bibliography of relevant books is included. The text of some 60,000 words is illustrated by over 200 colour photographs and drawings, but the latter are not always related to the text and are of inferior quality to those of the Collins' *Field Guide*: some are distinctly crude and inadequately labelled. The index too is incomplete. Despite such comparatively minor inadequacies, the book provides an excellent introduction to amphibians and reptiles and can be confidently recommended as a Christmas present that will give interest and pleasure.

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often randomly, both geographically and for the text, and that there is no indication of the actual size of the insects. The book is at its best in the information which it gives about the evolution of the Order, its anatomy and physiology, the methods of reproduction and the way the insects adapt to their environments, with sections on mimicry, camouflage and pheromones. The least satisfactory section is the classification, which is difficult to take in, and being necessarily short is over-compressed for such a vast subject. In spite of some unevenness the book is strongly recommended, and would make a splendid Christmas present.

Stuart McNeill's examples of British butterflies and moths, in *Butterflies and Moths* (Michael Joseph: London, £11.95) have been selected from the famous series of Christian Sepp and his son, the engravings first being published in Holland in 1762. The introduction explains the technique of copper engraving and gives a history of the Sepp family. The text relating to the insects is up to date, and one notes that the Peppered Moth was true to its name in the Sepps' day—the "dark, Satanic mills" which were to bring industrial melanism being still in the future. The book is recommended more for bibliophiles and nature lovers than for either beginners or specialists in the Lepidoptera. The restrained beauty of the plates makes the exuberance of the colour photographs in the other books seem vulgar, and yet it is interesting how accurately both can portray the insects.

Cyril A. Clarke

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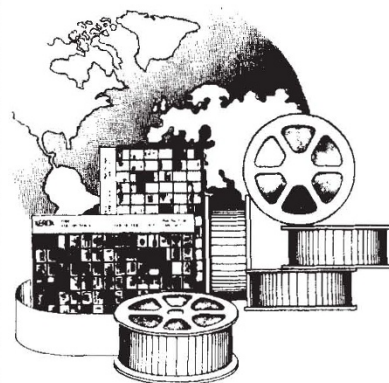
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