

"An underwater or fish's eye view of *Pelamis* floating at the surface. Note the conspicuous coloration of the tail. This and the bright yellow ventral surface are probably a warning to potential predators." [Photograph by Dave Hamilton, *Pennsylvania Mirror*, reproduced from *The Biology of Sea Snakes*]

of a substantial upgrading of the quality and quantity of our knowledge. The present volume represents the work of 19 authors writing 23 chapters. Many of the contributors had the opportunity to collaborate on their sea snake research during two cruises of the *Alpha Helix*, in the eastern Pacific in 1970 and in tropical Australia in 1972-73.

The volume is encyclopedic in scope and will be the starting place for all sea snake research in the future. The papers are not uniform in scientific quality, and I had the feeling that in a few cases there just are not enough data to justify the writing. Among the better chapters are a detailed review of the serological relationships among a number of sea snake species and their elapid terrestrial relatives, by Minton and da Costa; a summary of the biochemistry of sea snake venoms, including the amino acid composition of a number of venom components, by Tamiya; and a thorough review of the diving physiology, including cutaneous respiration, which appears to be highly developed in sea snakes, by Heatwole and Seymour. In this last chapter the authors argue convincingly for the remarkable conclusion that essentially sea snakes have no unique physiological adaptations for diving and that many terrestrial reptiles basically are preadapted for marine existence. A chapter on clinical aspects of sea snake bites by Reid should be in every medical library. Cogger provides a comprehensive zoogeographic review of Australian sea snakes, with a useful comparison of his generic classification with those of the major previous systematic works by Smith, Voris, and McDowell.

The information contained in chapters 5 through 9, which discuss sea snake natural history along limited geographic sections of northern and eastern Australia, could have been included in Cogger's account, trimming the book somewhat.

A chapter by Punay on the commercial sea snake fisheries in the Philippines is full of interesting information, including a number of recipes for preparing sea snakes as aphrodisiacs. Unfortunately, Punay does not comment on their efficacy. He claims that 500,000 sea snake skins a year are exported from the Philippines for leather manufacture and calls for conservation measures.

Additional chapters discuss sea snake feeding behavior, fouling organisms, salt regulation, geographic distribution, predation, salt balance, and sense organs, among a variety of other subjects. Reproductive behavior generally receives little attention, although Heatwole in his chapter on attacks by sea snakes on divers indicates that he has seen courtship and mating. It is to be hoped that his information on the subject will be published.

There are a number of instances of poor editing. A statement that sea snake gall bladders are eaten to strengthen the eyes appears in a paragraph on reproduction. Some photographs are repetitious or unclear or contribute little information. *Enhydrina schistosa*, the species responsible for most human bites, is not illustrated. Many authors felt obliged to make some general comments about the pelagic species *Pelamis platurus*, creating a redundancy when this species is discussed in detail in a separate chapter.

Careful editing could have easily reduced the size and price of the volume without affecting its information content materially. Certainly this would have helped it reach a larger readership.

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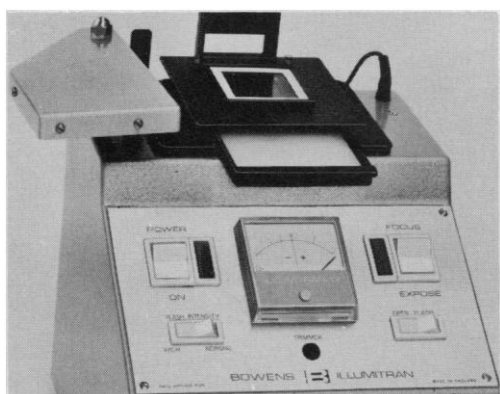
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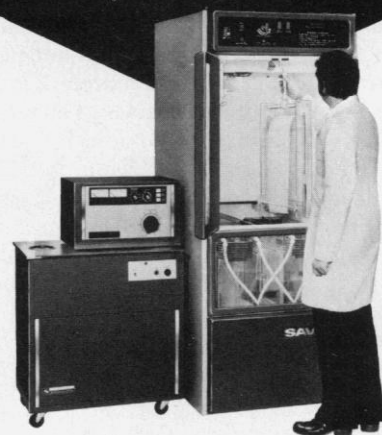
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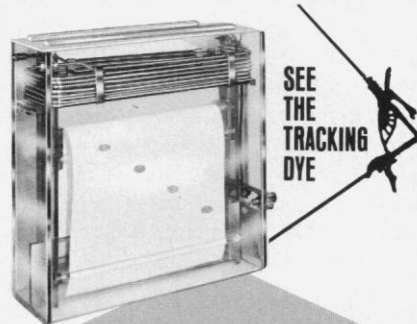
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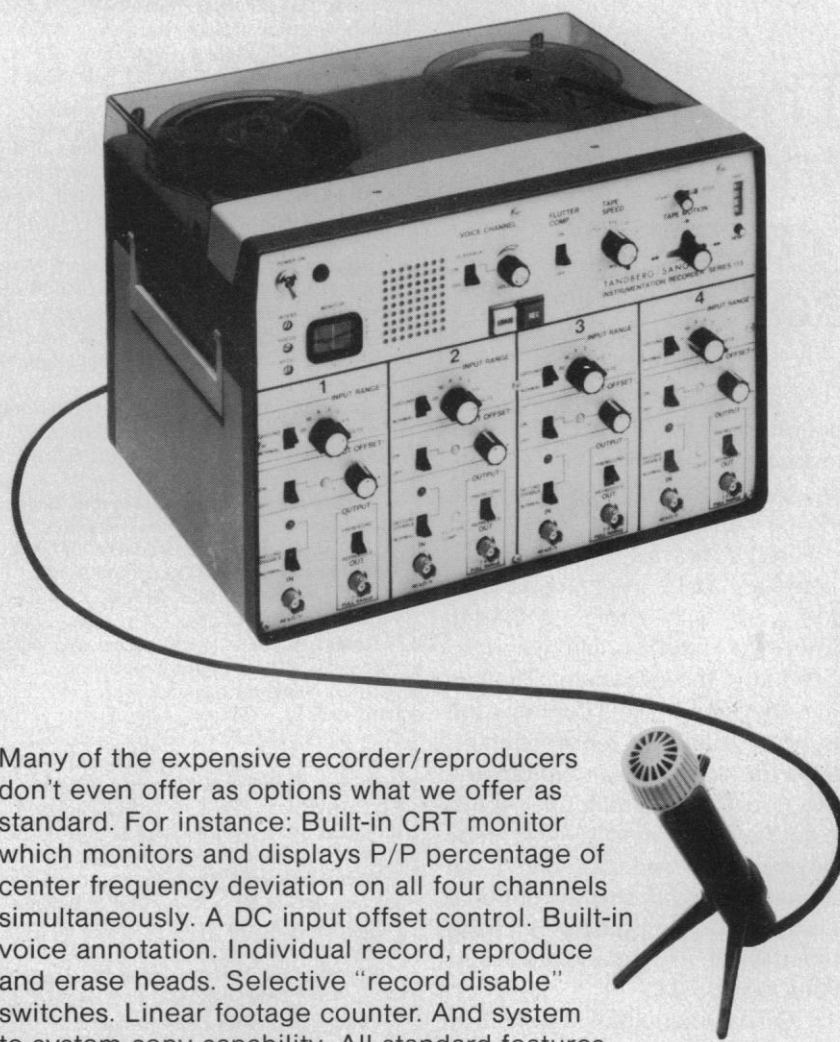
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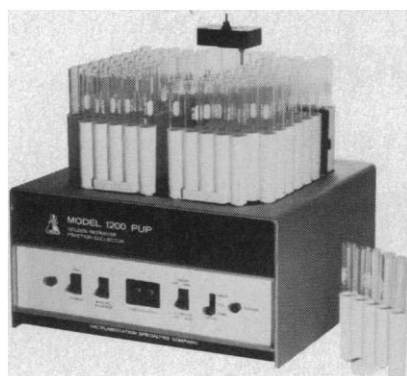
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