

up with the trappings of wealth (and therefore becoming more than a bit off-putting for that vast majority, including me and most of you, who didn't). Its level of insignificant detail, clouding and obscuring generalities in the manner of the worst descriptive monograph in taxonomy, reminded me of the classical genre of the retired English vicar: the comprehensive history of his parish.

I am interested in Walter Rothschild, his life and his works, but I do not care about the tea parties and social graces of every fourth cousin. I would even have waded through these details with equanimity if the important personal insights needed for understanding the man had been dispersed among them. But Miriam Rothschild is a dutiful niece, silent or impenetratingly discreet just when it really matters—and you will learn next to nothing about the suicide of Walter's brother and fellow zoologist, about his personal life with women, or about the persistent blackmail that clouded his life and eventually led to the sale of his beloved bird collection (now in New York).

For those (that is, nearly all of us) who grew up in ordinary circumstances, Miriam Rothschild's pervasive assumption that wealth is a natural state and upbringing provokes both offense and amusement. Thus, for example, she speaks of her unfortunate sister-in-law, who grew up "as poor as the proverbial church mice," as proved by the deprivation that her father could only provide an allowance of £50 per year (an amount that I could never hope to reach at the prevailing rate of 2¢ per returned pop bottle). I was particularly amused by the silliest *ad hoc* argument for biological determinism that I have ever read. Miriam Rothschild traces interest in animals through the Rothschild pedigree, notes the rarity of such a trait among "Jews in the ghetto, virtually isolated from wild life for a thousand years," then assumes that this supposed trait results from a single gene and that Walter and his brother Charles received it either as "odd mutations—or perhaps the expression of a recessive gene due to the double first cousin marriage of their parents." Many of the Rothschilds loved animals, and Miriam therefore concludes that the genealogy "must convince the most skeptical environmentalist that an interest in animals and plants was probably an hereditary character." I don't know. As I scan the genealogy, one property is even more widespread, and I doubt that anyone would care to postulate a specific gene for it: great wealth.

Walter Rothschild was a big man who made a big difference. He had courage and means to do just as he liked. He lucked into the second, but controlled the first. The world survived with one less banker; it is far richer for a million more butterflies.

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Endangered Primates

The Barbary Macaque. A Case Study in Conservation. JOHN E. FA, Ed. Plenum, New York, 1984. xviii, 369 pp., illus. \$49.50. Based on a conference, Gibraltar, June 1982.

The genesis of this volume was a conference on the status of both wild and managed populations of the Barbary macaque (*Macaca sylvanus*), a vulnerable species once widespread in Europe and North Africa but today reduced to relatively small and disjunct forest pockets in Morocco and Algeria. The effects of human interference on the Barbary macaques maintained by the British Army on Gibraltar, site of the conference, prompted John Fa, both a primatologist and a Gibraltarian, to organize the conference.

The book represents a dual approach to species conservation in that protection of wild populations and their habitats and captive propagation (ultimately for reintroduction to the wild) are viewed as complementary. Elsewhere the extent to which conservation moneys should be diverted from habitat protection to captive breeding remains a topic of debate. The Barbary macaque is identified as one of only three primate species with potentially viable captive populations. Three tourist parks with large enclosures have been established for the species in France and Germany, and in 1980 over 200 macaques from the two French parks were reintroduced into Morocco. No details are provided in the present volume that would bear on the debate over captive propagation, however.

Part I contains six chapters that define the status of the Barbary macaque in the wild, including a 4000-year historical survey of the human contribution to the decline of the fragile Mediterranean forest ecosystems in North Africa and examinations of the current pressures exerted on forests by grazing livestock and the way in which human overuse of a forest ecosystem can lead to overt con-

flict between humans and macaques. Such factors prove important in ranking Barbary macaque habitats according to priority for conservation.

Part 2 contains five chapters that examine the genetic, social, and environmental factors necessary for self-sustaining populations of Barbary macaques in zoos and semi-natural environments, including Gibraltar. The book concludes with a series of recommendations for conservation action largely derived from those formulated at the Gibraltar conference.

Some general conclusions reached in the book include the following: (i) Conservation efforts should be maximized by protecting populations in less disturbed and larger areas, rather than protecting all known populations irrespective of their viability (a "triage system"), though marginal populations in unique ecosystems may receive priority ranking to facilitate determination of the limits of a species' behavioral plasticity; (ii) Populations of threatened monkeys generated in captivity should not be established as a source of laboratory animals since such use could become a potential threat to wild monkeys, especially if the captive populations were to decline; (iii) To be successful, species and habitat conservation must be integrated with programs of socioeconomic development for human populations.

The holistic approach taken in this book to the situation of the Barbary macaque may well serve as a model for studies of other threatened species and their ecosystems.

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Island Biota

Biogeography and Ecology of the Seychelle Islands. D. R. STODDART, Ed. Junk, The Hague, 1984 (U.S. distributor, Kluwer Boston, Hingham, Mass.). xii, 691 pp., illus. \$115. Monographiae Biologicae, vol. 55.

The Seychelles Republic consists of a unique and complex group of islands in the western Indian Ocean. They are very small and isolated both from each other and from major land masses. Three ecological types are represented: granitic islands, low sand cays, and elevated coral limestones. The granitic group consists of some 40 islands rising from the Seychelles Bank, where depths are less than 60 meters. Low sand cays on sea-level

coral reefs on the bank include Bird and Denis. The other islands of the Seychelles are isolated from the bank by depths of 4 to 5 kilometers and include the elevated reef limestones of the Aldabra group, together with St. Pierre. As one might expect, the ecology and biogeography reflect the complex composition of the Seychelles.

The largest part of the volume (69 percent of the pages) is concerned with the relatively well-known vertebrate fauna. Marine invertebrates receive 16 percent and plants only 7 percent, with the remainder of the volume devoted to the geology, the climate, and the human population of the Seychelles.

The chapters on amphibians, snakes, lizards, and tortoises are particularly interesting. Amphibia are confined to the high granitic islands, where no fewer than seven species of caecilians are found (only about 180 are known worldwide). Some lizards have also undergone radiation within the Seychelles, as have the giant land tortoises. Bour reviews the taxonomy and history of the land tortoises and shows that the Aldabra land tortoise, *Dipsochelys elephantina* (= *Geochelone* = *Testudo gigantea*), belongs to a group of species representing a tortoise radiation within the Seychelles that included the granitic islands. Coe and Swingland review the biology of the Aldabra tortoise.

Other authors summarize for different groups what is known from historical records in an attempt to determine the original distribution of species within the islands. Almost all the authors provide information on the ecology of individual species. This information is much more valuable because it is based on the authors' own fieldwork in the region. Thus the ecological sections are stronger than those dealing with biogeography.

The available data on phylogenetic relationships and distribution of taxa in the Seychelles are insufficient for anything beyond a narrative approach to biogeography. Most authors conclude only that affinities are Oriental, Malagasy, or tropical African, for example. There is a conspicuous (and pleasant) absence of controversy on biogeographic methods—Croizat is not cited, and I was unable to locate the word "vicariance" anywhere in the 654 pages of text. This fact plus the excellent natural history and the thousand-plus references make it a worthwhile volume.

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