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communities, and emphasize the critical needs for surveys, training and education under the umbrella of conservation/development strategies.

Thus, we have an impressive, well-illustrated volume with a wealth of facts, ideas and feasible recommendations, which offer real hope for the effective conservation of tropical rain forests—a real must for anyone in any way involved or interested.

David J. Chivers, Sub-dept. of Veterinary Anatomy, University of Cambridge, UK.

The Ecology of Sulawesi

A. J. Whitten, Muslimin Mustafa and G. S. Henderson

Gadjah Mada University Press, Yogyakarta, 1987, 777 pp Copies are currently available from Heffer's Bookshop, Cambridge, at a cost of approximately $\pounds 18.00$.

The island of Sulawesi, approaching the United Kingdom in size, lies in the deep waters between the Sunda and Sahul shelves. As such, it has been isolated for a long period of geological time and its fauna and flora are less diverse than those of the continental islands from which they are derived. Endemism in the flora is relatively low, but the fauna, derived from both the Asian and Australian continents, is highly endemic. This is particularly true for the vertebrates where 68 per cent of mammals and 32 per cent of the resident birds are unique to Sulawesi.

The island has a population of 11 million, but the people are relatively unevenly distributed and until 1980 about 55 per cent of the island was still forested. However, the expansion of logging, the destructive impacts of shifting cultivation and the establishment of new settlements by colonists from Java, Madura and Bali are all contributing to the increased pressures to which the natural ecosystems of the island are subject. In theory Sulawesi has a comprehensive system of protected areas, but in practice few of them receive adequate management and many are under threat. Outside of the protected areas much of the remaining forest land will be converted to agriculture or logged within the next decade or so.

Decisions taken in the next few years will determine whether or not a reasonable sample of the 260

ecosystems of the island is conserved, and will also dictate the extent to which the use of the rest of the land is sustainable. If the correct decisions are to be taken, it is important that the people taking them have a sound understanding not only of the ecology of the island, but also of the basic ecological constraints that operate in tropical ecosystems. This book provides both. The authors have undertaken the ambitious task of presenting a comprehensive account of the natural history of the island in the context of good basic presentation of the latest thinking in conservation biology. Although a wealth of information is presented in the book's 800 pages, the text is easy to read and is greatly enhanced by numerous illustrations. There is an excellent bibiliography and index.

Inevitably, it has been difficult to achieve balance in such a comprehensive book. The choice of issues in the concluding chapter on 'Resources and the future' is somewhat arbitrary. The three pages devoted to the future of forestry deal at some length with the International Tropical Timber Agreement, probably of little immediate relevance to Sulawesi, but give scant attention to the more urgent issues of the delimitation of the island's forest estate, the allocation and management of concessions and the vexed question of stumpage fees.

This book could provide a valuable basis for the elaboration of sound development strategies for Sulawesi. It does, however, tend to ignore the fact that if all the existing laws, policies and plans relating to the management of Indonesia's forests were properly applied to Sulawesi, the prospects for the island's future would be good. The problem is that there is a basic conflict between what is good for the individual in the short term and what is good for the population at large in the longer term. The structures do not yet exist in Sulawesi to ensure that the latter prevails. Ninetyfive per cent of the income generated in central Sulawesi comes from forestry, but this is almost exclusively obtained at the cost of a deterioration of the resource base. The potentially important long-term benefits of forested watersheds and biologically diverse natural ecosystems are grossly undervalued by everybody from the shifting cultivator on one hand to the international development assistance planners on the other.

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An Indonesian language edition of the book has been published, and if this succeeds in contributing to the appreciation of these problems by the next generation of Indonesians the book will have performed a valuable function.

Jeffrey Sayer, Senior Programme Adviser, Tropical Forest Conservation, IUCN, Switzerland.

A Feast in the Wild

Russell Kyle Kudu Publishing in Wildlife Management, 1987, 203 pp, HB £15.95, PB £9.95

The expanding economy of deer farming and the relative popularity of venison as 'healthy' lean meat gives support to Russell Kyle's thesis that wild animals can and should be harvested. The argument is that, just as the wild aurochs is preserved in its descendant, the domestic cow, so other wild species could be saved from extinction by their domestication or by efficient ranching, sometimes in favourable new regions.

The author of this worldwide review of animals that could be economically exploited is persuasive, but the experimental ranching of wild ungulates over the last 30 years has not proved to be practical except with deer, saiga, and a few other species in localized instances. This is because of difficulties over the slaughter and distribution of carcasses, personal taste which makes people hesitant to try new meats, thereby creating a market only for pet foods, and the inevitable poaching that follows once a financial inducement is provided for the killing of any animal.

The ranching of wild ungulates in Africa received much publicity in the 1960s when the proposition was put forward that domestic cattle, sheep and goats were exotic species whose condition seldom matched that of the indigenous wild animals. Therefore, why not harvest these wild animals in preference to the domestic, which are so much more prone to starvation and disease?

Now, 20 years later, with the detailed studies of agriculturalists and anthropologists, it is realized that domestic livestock have been in Africa for very nearly as long as they have been in Eurasia, that pastoralism is an integral and well-adapted part of many African economies, and that Book reviews

because cattle can be both milked and driven to an abattoir, this outweighs the apparent advantages of the more sleek wild animals. This has been discussed by Keith Eltringham in his book, *Wildlife Resources and Economic Development* (1984, John Wiley & Sons), and it is regrettable that this work is not included in Kyle's bibliography.

Nevertheless, A Feast in the Wild is aptly named for it should be possible, with efficient management, to harvest the meat from a great variety of wild animals, from capybaras to kangaroos, and this very readable book should give encouragement to a broadening of attitudes and tastes, especially with the recipes at the back. Perhaps the inclusion of a recipe for turtle meat is questionable, but those for wildebeest in beer, roast guinea-pig, and casserole of grasscutter should add much to international cuisine.

Russell Kyle has been interested in wildlife management since 1971; his involvement with publishing begins with this book, and we must wish him success with his important new venture. Juliet Clutton-Brock, British Museum (Natural History), London, UK.

The Natural History of the USSR

Algirdas Knystautas

Century Hutchinson Publishers, London, 1987, 224 pp, $\pounds 14.95$

Zapovedniki SSSR: Zapovedniki Dal'nego Vostoka, in Russian, (Nature Reserves of the USSR series: Nature Reserves of the Far East.) V.E. Sokolov and E.E. Syroechkovskii, general editors Mysl', Moscow, 1985, 319 pp.

Okhranyaemye Prirodnye Territorii Mira: Natsional'nye Parki, Zapovedniki, Rezervaty, in Russian (The Protected Natural Territories of the World: National Parks, Nature Reserves, Reservations)

B.A. Borisov, L.S. Belousova and A.A. Vinokurov Agropromizdat, Moscow, 1985, 310 pp

Following Gerald and Lee Durrell's *Durrell in Russia*, the book to accompany their TV series on the nature reserves of the Soviet Union, a young Lithuanian biologist, Dr Algirdas Knystautas, has written the first book to appear in English 261