

Reports and Journals

The International Zoo Yearbook, Vol. 5, edited by **Caroline Jarvis**. Zoological Society of London, £5 5s.

A sign of the times in this excellent new edition of a now standard work is an article by Kai Curry-Lindahl entitled "Conservation of Nature: A Duty for Zoological Gardens", in which he states emphatically that the four main functions of a zoo are conservation, research, education, and public recreation, *in that order*. "To work for conservation is the obligation every serious institution must undertake if it exhibits living animals," and his programme for doing it is sufficient to keep the planning staff of any zoo hard at work well into the foreseeable future. There is a large section of articles on breeding, and an interesting note on a herd of twenty-one nyala at the New York Zoo, built up without any new blood from one pair bought in 1939—and with no ill results that could be attributed to in-breeding. On educational activities, William G. Conway describes the New York Zoo's creation of a Department of Exhibition under the direction of an artist-designer. "It is not simply the amassing of a thousand species of animals which makes a zoo park of value, but the way the collection is interpreted to the zoo visitor," he writes. A. P. G. Michelmores describes the educational activities of the Paignton Zoo. The invaluable reference section includes the IUCN list of rare mammals.

Proceedings of the First European Meeting on Wildfowl Conservation, St. Andrews, Scotland, 1963, edited by **J. J. Swift**. Nature Conservancy, 19 Belgrave Square, London, S.W. 1, 24s.

The proceedings of this admirable conference, organised by the International Wildfowl Bureau together with the Nature Conservancy, provide a valuable conspectus of the status of wildfowl in Europe and the problems of conserving them. It is of great interest that we now possess fairly complete counts of the world population of two species and three subspecies of geese wintering in Europe—the barnacle, pink-footed, dark-breasted brent, western greylag, and Greenland white-fronted geese. We also know the European wintering population of the pale-breasted brent pretty accurately. The great majority of these birds winter wholly or predominantly in the British Isles. But our ignorance of the total population of other geese, swans, and ducks wintering or breeding in Europe is profound. Not until we can estimate the size of a population can we know whether it is increasing or decreasing, and this knowledge is fundamental to a sound conservation policy. It was good to have this first conference to show how little we really know, despite all the recent advances; the efforts of IWRB must now be bent on filling in some of the gaps before the next one.

Report of the Nature Conservancy for the year ended September 30, 1964. H.M. Stationery Office, 13s.

In these days when financial upheavals make us feel like a small and backward country in need of international aid, it is encouraging to have evidence that in some spheres we still lead the world. One of them is research into the conservation of natural resources, and the evidence comes in this rather slim volume, under such unpromising headings as "Mineral nutrients in the ecology of mountain plants", and "Microbiology of moorland soils". For this is the scientific basis of conservation, which is the maximisation of the

energy flow in a given habitat, and we cannot ultimately hope to preserve rare or indeed any species without knowledge of how they fit into the ecosystem. No other country, not even the USA, has produced so advanced and tightly knit a research programme as we have.

The range of the Conservancy's activities is impressive, and a tribute to its Director General, Max Nicholson. The 111 national nature reserves, important as they are, are only the beginning. Scientists are studying problems of the contamination of the environment by pesticide residues, the loss of soil fertility due to excessive moor burning, the spread of cord grass *Spartina townsendii* as a potent factor in coastal ecology, the factors controlling grouse numbers on a moor, and many others. Some may appear to have no immediate practical relevance, but many great discoveries have come out of scientific research at which practical men scoffed, or would have done had they known of it. What could the Nature Conservancy not do with one-hundredth of the money squandered on aircraft development?

East African Wildlife Journal, Vol. 2. E. African Wild Life Society, P.O. Box 20110, Nairobi, Kenya, 17s. 6d.

The main paper in this volume, by Dr. H. F. Lamprey, is an estimation of the large mammal densities, biomass, and energy exchange in the Tarangire Game Reserve and the Masai Steppe in Tanganyika, from which "the outstanding fact that emerges", says the author, "is that the 'standing crop' of wild animals, measured in terms of biomass, on African savanna grassland and woodland is higher than that found on any other type of range in the world." In some areas, of which this study shows the Tarangire to be one, it "exceeds by a wide margin" the carrying capacity of cattle range land under the most advanced management in Kenya and North America.

Other subjects covered include field immobilisation of young wildebeest, observations on the biting flies that caused such havoc in the Tsavo in 1962, the zoogeography of African butterflies, and the rearing of young African elephants—"an extremely difficult, expensive, and time-consuming task which should not be undertaken lightly." Research notes include an extraordinary story of elephant devotion after a shooting, a census of game in the Ngorongoro Crater by Turner and Watson, the use of branding for long-term marking of game animals, and observations on lions in the Serengeti by G. A. G. Adamson, husband of Joy Adamson. He describes the release of tame or even wild lions into the wild—a field in which "I have gained some experience"—as exceedingly difficult. "The chances of a lion under one year set free and left to its own devices would be practically nil."

Proceedings of the First World Conference on National Parks, Seattle, 1962, edited by **Alexander B. Adams**. US Government Printing Office, \$1.75.

This 471-page volume is the monument to a notable enterprise, organised by IUCN (the second volume of whose new series of publications it is), and co-sponsored by UNESCO, FAO, the US National Park Service, and the Natural Resources Council of America. While suffering from the unsuitability as bedside reading common to all conference reports, it is nevertheless a splendid quarry from which can be hewn a vast amount of information about the national park idea and individual parks all over the world. Readers of Oryx will be especially interested in Lee Talbot's paper on the international role of parks in preserving endangered species. National parks have saved from extinction, among others, the Indian lion, North American bison,

bontebok, mountain zebra, and great Indian rhino. Some thoughtful contribution on almost every aspect of park administration or research is here, and the result thoroughly justifies the energy and effort which Harold J. Coolidge, as Chairman of the National Parks Commission of IUCN, put into the organisation of the Seattle conference.

The Ecology of Man in the Tropical Environment. IUCN Publications new series No. 4, Morges, Switzerland (1964).

At the ninth Technical Meeting of the International Union for Conservation of Nature and Natural Resources held at Nairobi, Kenya, from September 17th to 20th, 1963, thirty-eight experts from all parts of the world read papers on the general subject "The Ecology of Man in the Tropical Environment". They were divided into four groups: Pre-Industrial Man in the Tropical Environment; Ecosystems and Biological Productivity; The Impact of Man on the Tropical Environment; and Ecological Research and Development. Most of the work discussed related to Africa, but papers concerning Australia, America, and Asia were included. They are mainly in English, with a minority in French, and each English paper has a French summary, and *vice versa*. The papers are quite short, and each gives a generalised picture of its subject. Few if any contain any substantial amount of new information, and most are short accounts of work which the authors have published, often some years ago in more detail elsewhere. This book may be of some value in broadly sketching out the field, and in directing the reader to other, more authoritative sources.

There is a brief account of the discussion at each session written by the *rapporteur* concerned. No doubt the discussions were of more value to the participants than they will be to the reader. I must confess to having been most struck by this phrase in Dr. Fraser Darling's account of the session on Ecological Research and Development: "The discussion in this section was eager and forthright and gave the impression that a lengthy symposium with much deeper penetration would produce concrete results."

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Kingfisher, News and Comment about Wildlife and Conservation at Home and Abroad, edited by **Richard Fitter**. Subscription, 15s. a year for nine issues. 1 Bedford Court, London W.C. 2.

The first issue of this informative newsletter, edited by the Hon. Secretary of the FPS, contains a full-page account of the FPS and its work, in addition to fifteen pages of news from all parts of the world.

NEWS FROM WEST AFRICA

Nigeria has plans to declare another small nature reserve near the new River Niger dam. This will be a total reserve, like the Yankari Game Reserve, where, according to the author of a recent wildlife survey, Sylvia K. Sikes, most species are on the increase. The general destruction has made most parts of Nigeria "beyond reclaim", she says, writing in *African Wildlife*.

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The Republic of Niger in West Africa last year prohibited all hunting for two years. Another decree prohibited the sale and export of wild animal trophies. Leopards are among the animals in danger of extinction in Niger.