

ATOLL RESEARCH BULLETIN

ATOLL NEWS AND COMMENT

No. 119

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Atoll News and Comment

NEWS

In this section we will continue to give news items of possible interest to ARB readers. We will appreciate being informed of activities of our colleagues, expeditions, investigations, meetings, and other events pertaining in any way to coral islands or reefs.

ARB Resumes Publication

We are glad to be able to announce that we are back in business, now under Smithsonian Institution auspices. We enjoyed our 15 years of association with the Pacific Science Board and very much appreciate the support provided by the Coral Atoll Program including ARB by the Office of Naval Research. Because of the interest of the Ecology, Oceanography, and Systematics programs of the Smithsonian we have at least our next year's support advanced. The Bulletin will continue to be distributed gratis to those individuals who are actively engaged in research in some way related to reefs and islands, or administrative agencies with responsibilities related to islands, to appropriate educational institutions, and to libraries whose collections are available for use of the scientific public. Requests to be placed on the mailing list should be accompanied by information showing that the requester fits into one of the above categories. Otherwise they will not be considered.

To provide greater flexibility in accepting papers offered, the scope of the Bulletin is being broadened somewhat. Papers may be accepted that deal with other types of tropical islands, other elevated coral islands or partially or wholly volcanic islands if they relate in some way to coral and/or reef ecology. It should be clearly understood that papers on low islands and reefs will have priority over those on high or volcanic islands.

Issued by

THE SMITHSONIAN INSTITUTION

Washington, D.C., U.S.A.

November 15, 1967

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The editors would appreciate in exchange publications in the general fields of island biology and geology, marine ecology and geology, and on the tropics generally. Such publications may be noted or even reviewed in the ARB when appropriate.

The editing and distribution of the ARB is being resumed as a part of the Smithsonian's Program in Tropical Biology, which, it is hoped, may continue to stress coral atoll ecology.

We wish to express our appreciation for the concern voiced in the many letters from readers that followed our announcement that we had suspended publication, also for the many offers to subscribe if ARB could be continued

on a subscription basis. We are happy to be able to continue, at least for the present, to send it gratis.

Gilbert Islands - SPC Health Conference in Tarawa

The South Pacific Commission is holding a seminar on Health Problems of Coral Atoll Populations at Tarawa, Gilbert Islands, May 1-11, 1967. Representatives from a number of jurisdictions in the Pacific have been invited, as well as a number of consultants, including the editor of ARB. It is gratifying that the SPC health authorities regard ecology as of sufficient concern to have included an ecologist in their list of consultants.

British Indian Ocean Territory

By an order (S. I. No. 85 of 1965) signed by the Queen dated 8 November 1965, the British Government created The British Indian Ocean Territory, a new political entity. The territory includes the Chagos Archipelago, the Farquhar Islands, the Aldabra group, and Desroches Island. These islands, formerly under the jurisdiction of Mauritius and the Seychelles, will henceforth be administered for the Crown by a Commissioner appointed by the Queen.

The purpose of this action, it is rumored, is to make possible the use of the islands for military or other establishments without any likelihood of objection by political entities (Mauritius and the Seychelles) which may at some time become independent. The islands comprising the new Territory are so sparsely populated that no such problems are anticipated. For the present the laws and enactments in force under the previous jurisdictions will remain in force until modified by orders issued by the Commissioner.

Chagos Archipelago:--Diego Garcia Expedition

According to The Times (London), May 1, 1967, "A Royal Navy survey ship carrying a joint team of U.S. Navy and British Defence Ministry experts is sailing this summer to investigate the possibilities, for defence purposes, of a small chain of "islands" in the sun.

"H.M.S. Vidal will set off in about six weeks to Diego Garcia, a part of the Chagos Archipelago, in British Indian Ocean territory. . ."

Several British and U.S. scientists will be included in the group. We have only rumors as to who they will be, but at least our correspondent, David Stoddart, of Cambridge University, seems certain to go. We hope to have an account of the results for our readers after they return. After the Diego Garcia visit is finished, at least some of the scientists will go on the Vidal to Aldabra on the first part of the Royal Society Expedition to Aldabra. This expedition will have two parts, one in the dry season this summer, the other in the wet season next February. This is a follow-up of the British Broadcasting Company Royal Society Expedition to Aldabra last summer, reported in ARB 118, in this issue.

Caroline Islands

Vern Carroll is returning to Nukuoro in May to continue his anthropological studies there. We have a good series of herbarium specimens from him, representing the plant species that the local people consider "pre-contact," that is, existing on the island before it was first visited by Europeans. He hopes to be able to get the "post-contact" species on this trip.

Mr. Edward R. Murray, a Peace Corps volunteer, has been for the past few months on Kapingamarangi. He has set up a weather station and is recording daily observations. He has also taken a complete census of the population, and is making other observations of ecological interest.

ORIGINAL OBSERVATIONS

It will be the policy of the editors to include in this section any short notes or papers that total not more than three pages of text. The authors' names will, of course, be given. This is the interests of economy, as to make separate numbers of such papers involves considerable extra work and some expense.

The Identity of the Rats on Heron Island, Capricorn Group, Queensland, Australia

F. I. Norman, Department of Zoology and Comparative Physiology, Monash University, Clayton, Victoria.

Moulton (1961), when discussing the fauna of the island, mentioned that old 'reef heron nests are at times filled with partially gnawed Pandanus fruits, probably by the island rat Rattus exulans'. Troughton (1962) mentions the species only in regard to its similarity with a specimen from the Albrolos, which Tate (1951) considered strongly resembling R. exulans. Troughton, however, thought that it should be provisionally accepted as a species, R. glauerti. Tat (1951) gives examples of only two occurrences of R. exulans within Australia: a male from Adele Island, northern Western Australia and an adult from Lagrange Bay and notes that a subspecies also occurs at the Aru Island Group, Ceram and Amboina. Thus it was doubted that the species at Heron Island was, in fact, R. exulans.

In May 1965, during a ten days' stay on the island it was noticed that the eggs of the green turtle, Chelonia mydas, were hatching and the young moving downwards, at night, to the sea. On two occasions small groups of two and three young were found dead with the soft parts of the neck ripped open. Damaged individuals were also noticed, the majority with bleeding flippers, and rats were seen in the immediate neighborhood. Six rats later caught were identified as R. rattus, an opinion later confirmed by B.J. Marlow of the Australian Museum, Sydney (in litt.). No other species of rat was caught, or seen, and it is thought that the 'island rat' is, in fact, Rattus rattus.

References

- Moulton, J. M. (1961). Some observations on the Heron Island fauna. Atoll Research Bulletin, 82:15-16.

- Tate, G. H. H. (1951). The rodents of Australia and New Guinea. Bull. Am. Mus. Nat. Hist. 97:187-430.
- Troughton, E. le G. (1962). Furred animals of Australia. Angus and Robertson, Sydney. 7th Ed.

PUBLICATIONS

We intend to continue to publish announcements or brief reviews of books and other publications with a bearing on atolls and reefs, and on islands in general if there seems to be some relation to the ecology of coral atolls. As can be seen from the notices below, we interpret this very broadly. How many such publications are noted and the thoroughness with which they are reviewed will depend very much on what is brought to the attention of the editors and how much time the editors can take to read and review them. Reviews by others, if not too lengthy, will be accepted and published at the editors' discretion.

Brown, W. L., Jr. (ed). - Pilot register of zoology. Cards 1-20. Cornell University, Ithaca, New York. 1964. This is a new departure in publication of taxonomic information. Admittedly an experiment, it is an attempt to put the original descriptions and illustrations, as well as new combinations, reductions to synonymy and, probably, critical discussions, on large cards with perforated edges for key-sorting. The cards are substantial, well printed, perforated for binding in three-hole ring binders. To explain the plan, the following three paragraphs are reproduced from the information sheet sent out with the trial set of cards.

"The series of twenty cards enclosed for your departmental library represents a new experiment in publication in the field of systematic zoology, the Pilot Register of Zoology, sent you with the compliments of the Department of Entomology and Limnology, New York State College of Agriculture at Cornell University. The cards are intended to demonstrate the advantages of publishing basic taxonomic information by employing species and genera as modular units that can be used to build a register file (card catalog). Possibilities for improved retrieval of information are embodied in the keysort margin of the card. The top edge, for instance, is designed to take punching for a card serial number of up to nine digits. The right, left and bottom margins are free for punching according to any system of coding the user cares to develop, including those based on morphology, taxonomic affiliation, behavior, ecology, geographical distribution, or others.

"The entries published on these cards are validly published under the International Code of Zoological Nomenclature, and the new species described are intended to be available for purposes of homonymy and synonymy; they have not been published elsewhere. The Register is distributed to over 1,000 institutions and individuals in all parts of the earth. Additional sets of this issue are available for the cost of mailing, \$0.25 USA, upon application to: REGISTER, DEPARTMENT OF ENTOMOLOGY, CORNELL UNIVERSITY, ITHACA, NEW YORK, USA.

"It is hoped that the Pilot Register of Zoology will point the way toward the eventual adoption and sponsorship by some international agency of a continuing series of register cards more or less like these, that will contain not only all new taxonomic proposals, but will also be extended back in time to catalog in modular form all the taxa with their descriptions, figures and other data from Linnaeus onward. Some cards in the present series illustrate the possibilities in this direction. However, there are no present plans to issue further sets of the Pilot Register of Zoology after this one."

Our impression is that if this system had been used from the beginning of valid zoological publication it would have been excellent. Now, after between one and two million names of animal species (including synonyms) have been published in conventional media, the economics of transferring all of these to cards, especially since a whole card is used per species, whether the description is two pages or two lines long, are to say the least, doubtful. We also have doubts that the publication habits of the thousands of practicing systematic zoologists can be changed so readily as to make this system a success in less than a few generations. The suggestion that "some international agency" might adopt and continue this series leaves us rather skeptical, after some experience with existing international organizations and their financial and organizational problems. No international organization that we are familiar with has the continuity of purpose, combined with assurance of the necessary level of financial support to justify undertaking a continuing project of anything like this magnitude.

We wish this project well but have little optimism.

Whitehill, Joseph. Precious Little. 1-221, Scribner, New York, 1967, \$4.50. - It may not seem appropriate to review a novel in the ARB, and certainly we do not intend to make a practice of it. However, this is a very special novel. It is about an imaginary geophysical expedition to an imaginary island in the mid-Pacific, sent out by an imaginary institute of oceanography. It was a well-conceived and well-planned, if under-financed, expedition, which started out with every chance of success. A mounting series of administrative blunders, against which the men in the field were helpless, led first to frustration and inefficiency, then to disaster and the failure of the expedition.

Those who have never been in the field, depending on home base for support, may find some of what happened hard to believe. Some who have been on such expeditions will feel right at home. The characters are well-drawn, slightly exaggerated, perhaps, but convincing. The island is not too bad for an imaginary place. The account of the expedition shows that the author did his homework, even if he has never been on such a trip.

This book can be recommended to those who have been on expeditions for the feelings it will evoke, to those who expect to go on an expedition as preparation, and to the stay-at-homes as entertainment. It should be required reading for all administrators who ever possibly may have to do with sending a party on a long expedition.

Silvester, R., Coral Reefs, Atolls and Guyots. Nature 207:681-688, 1965.

This paper, kindly sent by the author, presents an entirely new, and entirely unique, theory of the origin of atolls. We do not feel able to

comment on this and can only suggest that the curious look it up and appraise it for themselves.

Barrau, J. An ethnobotanical guide for anthropological research in Malayo-Oceania (preliminary draft). 1-149, [Bangkok 1966]. For years the science of ethnobotany has existed in an indefinite fashion with a horde of amateurs and a few competent professionals as its practitioners. It was even difficult to find an adequate description of the field. Yet it is a field that fascinates practically everyone who does any botanical work in an area where relatively primitive people still live, and that makes a very significant contribution to many ethnological studies.

Barrau, at the request of the Unesco Southeast Asia Science Cooperation Office, as a part of its contribution to the Unesco Humid Tropics Programme, has produced a work that effectively dispels the vagueness that surrounds ethnobotany and presents a comprehensive and adequate definition and circumscription of the field. The guide is a mimeographed document, distributed at the 11th Pacific Science Congress, with a request for suggestions. It is, as stated, a preliminary draft, in extremely rough form leaving about everything to be desired editorially. Its specific subject matter and bibliography concern "Malayo-Oceania," Indo-China, Malesia and the insular Pacific, but its treatment of Ethnobotany serves equally well any region of the world where primitive man or even his archeological remains still exist.

Both the philosophy and the techniques of the science are effectively described and exemplified by investigations on plants and peoples of the western Pacific, where the author is the outstanding authority. An annotated list of the vascular plants of ethnobotanic importance in the region is of much interest. The breadth of his concept is shown by his stressing the taxonomy of the plants as well as their relation to man, the history and geography of man and his plant associates, and the relationships of man to vegetation. Proper methods of collection and preservation of material are explained, the pitfalls of uncritical recording of information supplied by informants, and the need for looking at the ethnobotanical aspects of a culture from within the cultural and linguistic framework, are stressed.

We hope that the response in the form of suggestions and comments is so enthusiastic that the author will get on at once with the preparation of an edited and generally available version. Even after this rough draft, ethnobotany will never again be the same. We will spare our readers our specific comments, but will make them directly to our friend Jacques Barrau. Here we will merely congratulate him on his complete mastery of his field.