

on the part of host institutions, which often borders on the cavalier—all points that are mentioned and documented in the presentation—have damaged not only the standing of student-abroad programs but the general overseas reputation of American higher education. These are all points which should be made, but it should also be said that in making them the author has failed to make certain other points which would have formed a logical part of the chapter.

One all too obvious point, at least for American educators living abroad, is the existence of what might be termed semilegitimate student-abroad programs, promoted by private individuals or groups for their own profit, not connected with any recognized American institutions but given a loose cover of academic respectability by utilizing instructional programs offered by European institutions, supplemented by lecture series, theatre and music subscriptions, and other cultural-cum-educational activities. Such programs, which each year draw a sizable number of American students, are at best an opportunity to spend an expensive and chaperoned year abroad and at worst actually dangerous for the students in them.

Another point, which appears worthy of some consideration, is the scant attention paid to the possible use of student-abroad programs for the purpose of educating American students for overseas assignments. Certainly it is an odd and interesting fact that the need for such education is barely touched on in the book, although the work of the project has shown clearly that the lack of Americans with competences for overseas work is one of the principal deficiencies of our entire overseas effort. It is understandable that a discussion of this nature might have been considered as out of place in a book dealing primarily with program operations, but there still remains a valid question about why education in this area has received so little attention.

### Technical Assistance

The third major section of the book (and judging by the space devoted to it, the one considered by the author to be the most important) deals with the types of American programs that are concerned with technical assistance. Such programs embrace a large number of contracts by which American univer-

sities supply specific types of instruction that forms a part of the educational programs offered in foreign countries; there is another group of arrangements under which foreign students study at American universities in order to achieve a specific technical or professional qualification. These programs, supported either by foundations or by governments, utilize American colleges as contractors who supply services that are directed toward specific goals. According to the examples given, the extent of the services vary all the way from programs for the training of tractor drivers and service men to the development of professional schools, and from 1- or 2-year contracts to programs planned on a long-term basis.

There can be no doubt about the importance of these programs, for in fact the commitment, through programs of this type, which American higher education has made to world education (as distinct from the commitment of American higher education to American education) has become so large that it constitutes, in and of itself, one of the world's larger systems of higher education. When it is viewed as a system, which is what is done in *The World Role of Universities*, it becomes clear that it is piecemeal, widely scattered, often staffed and administered on an ad hoc basis, sometimes poorly planned, and at present probably unduly expensive in terms of provable results. But it is also clear that this program, with all its faults, is one of the most important undertakings of our time. It is building institutions, developing methods, establishing programs, training teachers as well as technicians and specialists, and introducing ideas on a scale that no other single program approaches. It is an undertaking which commands attention, and which, in commanding attention, has, in a sense, forced *The World Role of Universities* into a form clearly different from the one intended.

In praising what the author (who was also director of the entire project) has accomplished, it is not out of place to express a tempered regret over the superabundance of the material that has been drawn into the book. The repetition of examples bearing on the same point and the reuse of the same example to prove different points make for heavy reading—for example, a program of veterinary medicine in Mexico, which involves the University of Pennsylvania, is mentioned in different contexts on pages 121, 123, 124,

174, and 200. The use of a style that involves many different points, some of which are fairly minor, buttressed by repeated examples, operates to smother findings, evaluations, and suggested criteria. Further, the facts are so omnipresent that they prevent detachment or generalization—I found myself repeatedly wishing the author had winnowed his facts down to two or three of major importance and had undertaken to show their relationship to one another. Admittedly the decision to do so is difficult when, as in the case of all writings dealing with international problems, the facts are so hard to come by in the first place that their sacrifice becomes an almost unbearable act.

In coming to the end of *The World Role of Universities*, and particularly in reading the careful and detailed final chapters entitled "An agenda for American universities" and "An agenda for foundations and governments," the reader is left with the strong impression that Weidner has exercised too much restraint in writing his report—that he has avoided generalizations to stay close to documented facts, that analyses and insights have been left unwritten—in short, that he has more to say than he has said. We may hope that this is so, for, while we need the facts and findings with which he has presented us, we have even greater need of the judgments and observations that he is so obviously and so well prepared to give us.

### Ornithology

**Handbook of North American Birds.**  
vol. 1, *Loons Through Flamingos*.  
Ralph S. Palmer, Ed. Yale University Press, New Haven, Conn., 1962.  
xx + 567 pp. Illus. Plates. \$15.

This handbook was planned to fill the need in North America for a compendium of information on the species of birds that occur entirely or in part in the New World north of Mexico. An immense effort has been expended by the editor and his many collaborators in assembling information. The general subjects dealt with are systematic categories and their characterizations, plumages, distribution, geographic variation, field identification, voice, habitat, migration, reproduction, habits, and food. Other topics are covered where appropriate to the species concerned, although items on special struc-

tural adaptations and on physiologic attributes are given scant attention or, in many instances, they are omitted. The bird groups involved are the six avian orders from the loons through the flamingos of Wetmore's sequence. To complete the work, many years of further effort will be required, and it seems likely that ten volumes will be needed to publish the series.

My reactions to this first volume are mixed. I am at once grateful for the many useful features of the handbook and the dedication of the editor in making it a life work. On the other hand, when I see its limitations and defects, I am disturbed by the authoritative position this volume will, by its very nature, assume in the literature. The many nonprofessional students of ornithology, and even those professionals who use it when delving into matters distant to their particular competence, will be inclined to accept uncritically the condensations and selections of facts and be guided inappropriately by some of the general, underlying concepts adopted by the editor. The danger in this direction is enhanced by the statement that the handbook is sponsored by the American Ornithologists' Union. It is true that that organization strongly encouraged the development of the handbook, but it had no effective review of the decisions made by the editor. Indeed, no representative editorial appraisal of the text, or of the policies reflected by the text, was made by the Union or by its Committees.

The most unfortunate feature, for which the editor has taken responsibility, and which is contrary to widely held opinions, is the nomenclature used for plumages and molts. The names adopted imply a doubtful homology and evolutionary system of plumages proposed rather recently by Humphrey and Parkes and which sets aside a series of usages long understood and embedded in the extensive and important literature on molt. The right to propose new interpretations and nomenclature in a paper in a journal, I would defend with vigor, but to adopt for use in a handbook a system of nomenclature which has been severely criticized and whose dubious elements have not yet been resolved by research workers in the field is indefensible. The tragic confusion that will arise from this usage in the handbook is deplorable.

The scientific and vernacular nomenclature of the species treated in this volume does not depart greatly from that of the fifth edition (1957) of the Amer-

ican Ornithologists' Union's *Check-list of North American Birds*. Where it does so in respect to scientific names, the pertinent references and reasons are usually indicated. More changes are to be found in the Procellariiformes than in the other orders. Several improvements in vernacular names are made, and earlier usages are noted in the text to facilitate use by the amateur.

Distribution is recorded, chiefly on maps and with varying degrees of success. For species that have large ranges, the general distribution is indicated but with so much sacrifice of detail, or with the linework so obscured by overlays, that the value of the maps is reduced. Perhaps the only solution to such a problem of presentation is to resort to a number of sectional maps. A stereotyped plan of symbols leads to the use of many large question marks on the maps. Of course, uncertainties should be reflected, but the standard legend used for these queries is "see text." One then encounters much difficulty in pursuing the questions, as apparently they are not all dealt with, are not cross-referenced to the map, and relate to discussions scattered through several subsections.

I find incongruous the refined statistical treatment of the sizes and shapes of eggs when measurements of the specimens of the birds themselves are reported only as means and extremes, often of small samples drawn only from the literature and thus derived from authors whose measuring techniques vary considerably. Better data on size and variability could have been presented, for sufficient specimens of most species are now available in museums. The inclusion of a special statement that gives the number of each species banded and recovered has very limited value. Recoveries of marked birds are to some unknown degree incorporated into the accounts of range and migration, but the mere record of bird-banding effort seems to be without biologic significance.

The treatments, in telegraphic style, of reproduction and habits vary in value according to the ability of the compiler of the particular section with respect to his grasp of the subject and his facility for expression. Thus, one finds a good, authoritative condensation for the slender-billed shearwater, which was written by Serventy, the leading investigator of its biology, but some other accounts lack perception or depend too much on literature of poor quality, such as that of the

early writer, W. Leon Dawson. Disparity in accounts cannot be avoided entirely in an undertaking of this kind; nevertheless, it could have been less pronounced.

In sampling sections of the book, one encounters, not rarely, apparent inconsistencies or errors. For example, we find the report that there are six species of flamingos, but in the sections that follow a merging of forms is adopted which would reduce the total to five. The statement is made that the slender-billed shearwater ranges or straggles south on the North American coast only as far as Monterey in central California; but the map shows it extending south to the tip of Baja California, and the literature cited, based on specimen evidence, indicates the southern limit is in northern Baja California. In the treatment of the Laysan albatross, the important findings of Frings and others about salt excretion are not incorporated, although space is given to the rather pointless comment that "the source of crop and gizzard stones is a mystery."

The most valuable aspect of the handbook, in my judgment is the indication of sources of data. A conscientious user will, through the good bibliography, trace down facts, check on them, and form his own opinions. It is hoped that enough warning has been sounded to establish the need for this, so that the serious worker will use the handbook effectively as an introduction to subjects but not as a definitive assemblage of facts and, least of all, not as an interpretation of them.

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## A Limited Edition

**Experimental Embryology.** Techniques and procedures. Roberts Rugh. Burgess, Minneapolis, Minn., ed. 3, 1962. ix + 501 pp. Illus. \$9.25.

Teachers of experimental embryology will welcome this new edition of Rugh's useful manual. The text has been revised superficially by limited rewriting, by adding new references and deleting some older ones, and by slightly rearranging the material. There are new chapters on dissociation and reaggregation of cells, basic tissue culture techniques, and the use of mouse embryos. Some new plates have been added, and