

material, which itself greatly influences the results. The amounts and kinds of motion of joints and muscles are reduced considerably in preserved material.

The section dealing with the head is particularly disappointing. The muscles were not studied in detail (admitted by Owre) and might best have been eliminated. The figures of the wing and leg are adequate, but those of the head were reduced too much and the details are lost. I found it peculiar that he would include the discussion of the M. depressor mandibulae with the neck muscles rather than with the jaw muscles. Moreover, he omits any discussion about the possible role this muscle might play in protraction of the upper jaw. The section on the head was especially poor in that he did not use any of the recent papers on cranial kinesis (e.g., those of Zusi, Bock, Simonette) and consequently his analysis suffers. Indeed, the most recent paper cited in this monograph is 1962, which indicates that little effort was made to incorporate recent advances since it was written, over 10 years ago.

Now, in light of the above comments, does this mean Owre's functional analysis is wrong? No, it does not. The anatomical correlations he made with different modes of life may be functionally significant, but insufficient evidence prevents us from making a decision. Owre has done a great deal of work, and he is to be congratulated. Further studies of these birds would be most welcome, and some of the information I mentioned above could be gathered without much additional effort.

Owre recommends that the anhinga and cormorants be placed in separate families, and he believes his study supports this conclusion. Since there is no given level of morphological divergence that signifies family rank taxa, I cannot agree. If he had made the argument that the morphological divergence between these two groups is as great as among the other families of the order, then he would have made a stronger case. But this was a study of morphological adaptation and not of systematics; the latter will have to await a comparative study of the order.—Joel Cracraft.

NOTES AND NEWS

We note with pleasure the addition to the review staff of Joel Cracraft, a research fellow in the Department of Ornithology at the American Museum of Natural History in New York. He will specialize in anatomy, paleontology, higher-level systematics, and zoogeography.

A substantial increase in our printing rates was effective with the January issue. We do not expect to have to reduce the size of issues, nor will we increase dues and subscriptions at the moment. The best way to minimize increases in dues and subscriptions is to increase our circulation further. Anything our readers can do to mention *Bird-Banding* to potential new members or subscribers will help both our readers and the journal. The cost of separates and of extra whole copies for authors have also increased.

As this issue goes to press, we are able to offer quicker than normal publication time for some papers. We have been getting a good flow of papers, but the long issues at present can use several sizeable papers per issue.

The Manomet Bird Observatory is completing its first year of permanent operation, with a continuing banding program and a growing involvement in educational work. A small skin and egg collection and a rapidly expanding library of books, journals and reprints, together with the completion of the banding laboratory, have added to the usefulness of the facility. Inquiries about membership and the use of the Observatory should be addressed to the Director, Manomet Bird Observatory, P. O. Box O, Manomet, Mass. 02345.

Prices and availability of NEBBA mist nets are as stated in the October,

1969 issue; orders should be sent to Mr. E. A. Bergstrom, 37 Old Brook Road, West Hartford, Conn. 06117.

The McCamey chickadee trap (*Bird-Banding*, **32**: 51-55, Jan. 1961) is an excellent single-cell trap, suitable for the feeding shelf, a feeder, or on the ground. The trigger is the best that we have seen. It is sensitive enough to be tripped by a two-gram load, though normally set at five grams. Chickadees weigh approximately eight grams. The trigger is still stable enough to minimize accidental tripping by vibration. A beginner at trap construction would have difficulty developing a treadle with this sensitivity. They are available with or without a wire bottom at the same price.

Depending on demand, delivery from the manufacturer can be expected in about a week. Traps weigh about three pounds, are individually packed, and shipped *F.O.B. Eugene*.

McCamey Chickadee Trap	\$6.00
Copper Bait Pan	.75

Order from Donald E. Payne, Route 7, Box 159A, Eugene, Oregon 97405.

NO MIST NETS IN JULY

As I expect to be abroad for the month of July, we regret that NEBBA will be unable to ship mist nets, make formal quotations on nets, or supply other information between about June 27th and August 1st (not July 10th to August 10th as tentatively suggested in the January issue). However, it is likely that the costs and availability of net types as listed in the October 1969 issue will still apply. Supplies of nets are currently good.

E. A. Bergstrom