might be open." Dr. T. Gilbert Pearson has stated in the National Geographic Magazine, that "the sharp dagger of the heron spears fish". Presumably most of the species of herons are capable of using their beaks as spears, though the Boat-billed Heron (Cochlearius cochlearia) has a broad, blunt bill and would be unable to use it in this manner.—LAWRENCE E. HUNTER, Dallas City, Illinois.

[Coues (Key to North American Birds, 5th ed., 2:863) states: "Food... generally procured by spearing." Surber (in Roberts, "The Birds of Minnesota", 1:186) referring to the Black-crowned Night Heron, states: "So far as I could observe, the Herons seemed to grasp the fish between the mandibles and not to pierce the body as is usually done by the Heron Tribe." The Boat-billed Heron is placed in a separate family.—O. A. S.].

## CORRESPONDENCE

In the review of Pettingill's recent monograph on The American Woodcock\* written by Dr. T. C. Stephens in the Wilson Bulletin (Vol. XLVIII, No. 4, December, 1936, p. 317) occurs this statement: "The author discounts the claim that the Woodcock carries the young away in the event of danger." Since this seemed to me a misinterpretation of Dr. Pettingill's text I wrote Dr. Stephens concerning the matter, and he has been kind enough to agree that such a misinterpretation might arise, and to suggest that I discuss briefly my views and experience relative to such an act on the part of the Woodcock. I therefore suggest as being more nearly in accord with Dr. Pettingill's discussion the statement, "The author discounts the claim that the Woodcock purposely carries the young away in the event of danger."

It is easy to realize that to a person who has not seen it the carrying of a young bird by a parent Woodcock must seem a fantastic performance. Nevertheless, on pages 333 ff. of Dr. Pettingill's volume there are a number of eyewitness accounts of the act to which credence is given, among them an account of two such occurrences observed by the writer. I shall attempt below to amplify the notes quoted there, part of which had already appeared in the Auk (Vol. 47, pp. 248-249, 1930).

The first of the two observations was made on May 7, 1926. My father, a trained observer, Mr. Charles Hefner, and the writer were engaged in spraying an apple orchard near French Creek, Upshur County, West Virginia. An adult Woodcock and two young were flushed, the young birds appearing to be well under half-grown. The birds scattered, but we followed the adult, our attention being called to its peculiar flight and appearance. Since there was little cover nearby we were able to follow it closely and to flush it almost immediately. When it rose again we could see clearly that it was carrying a young bird, apparently holding it between its (the adult's) thighs. The young bird dangled below the feet of the adult, and the flight had much the appearance of the ordinary "injury feigning" behavior, with which we were familiar. All three of us again pursued closely, and a third such flight was made, the young bird still in plain view. These flights did not average more than ten feet in length, and we could easily

<sup>\*</sup>The American Woodcock. By Olin Sewall Pettingill, Jr. Vol. 9, No. 2, Memoirs Boston Society of Natural History. Boston, 1936. Pp. 168-391.

keep up with them. All three of us were in complete agreement as to what we saw.

On the fourth flight the old bird had dropped her burden, and this time she flew much farther. We examined the last point of departure and found there a young bird in downy plumage. I must confess that we made no attempt to weigh the young bird, nor did we consider, at the time, that we had seen an especially unusual sight. My father had had an account of such a performance from Dr. Edward A. Preble, of the U. S. Bureau of Biological Survey, and we accepted our own experience as a matter of course. It should be emphasized again that conditions for observation were unusually good, due to the poor cover nearby.

My second observation was made on the same farm on July 11, 1929. From the neighborhood of a small seep hole in a meadow an adult Woodcock and three young were flushed. As the old bird rose a fourth young bird was seen hanging between her(?) legs. This time I was so fortunate as to be carrying a good 6x glass. I ran to her quickly, and forced her into three more short flights before the young bird was abandoned. I should say that the young in this case was nearly half-grown. My impression is that the flights were made with the feet of the adult uncrossed, but I cannot be certain of this. The young bird carried was held well between the legs of the adult, and there was certainly no grasping of the young in the feet as has been reported by some observers. Th young bird appeared perfectly limp, and its feet dangled a considerable distance below those of the old bird.

Dr. Pettingill, who has not been so fortunate as to see this performance by the Woodcock, suggests a possible explanation for it. His theory (as given in his monograph) is that as an adult with young flushes to feign injury its feet become braced and its muscles grow tense with fear. If a young bird happens to be between the feet and legs at the moment of tension and flight it is raised from the ground and carried for a short distance. To this theory I can add nothing. Dr. Pettingill believes (and I agree) that a purposeful act of this nature on the part of the Woodcock is out of the question. Such intelligence is entirely too much to expect from a shore bird. For the fact that I have seen three and four such flights made in series I can only propose the explanation that the birds were followed so closely that their muscles did not relax between flights. It is common experience that after an "injury-feigning" flight a Woodcock will squat close to the ground and look around before it attempts to move away. In the cases noted above this pause each time was very brief, since we were within a few feet of the points of alighting.

Until the miracle of a moving picture camera in exactly the right hands at exactly the right time and place we shall in all probability have to be content with eye-witness accounts of this phenomenon. I am abundantly aware of human frailties of sight, as well as human abilities to stretch facts, but in my own case I can only fall back on the comforting reflection that "seeing is believing".

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