CORRESPONDENCE.

Injury Feigning in Birds.

Editor of 'The Auk':

It is a weakness of many ornithologists who discuss bird behavior that they restrict themselves to the near-at-hand. Parochialism in field-study—concentration on a particular area or particular species—has a special value, but parochialism in reading is another matter; it is sometimes tantamount to laziness. How much better informed we would be if, on the one hand, Australian students kept more closely in touch with 'The Auk' and 'The Ibis,' and if, on the other hand, English and American ornithologists paid more attention to 'The Emu' and other vehicles of observations on Australian birds. For my own part, prior to writing on subjects of a general nature, either in 'The Auk' or 'The Ibis' or in my own books, I have consulted all available literature, and the results invariably have been useful. Similarly, I suggest that no British writer on an "extra-limital" subject, such as parasitism, or vocal mimicry, or, for a more topical example, injury-feigning in nesting birds, can afford to overlook what has been published by Austrailian students.

I am moved to make these comments through reading a letter in 'The Auk' for July of 1935. Discussing birds that feign injury, Harry S. Swarth says he has never seen a Passerine bird do so, nor has he ever read of any bird other than Plovers and Doves following the practice. Mr. Swarth has been unkind to himself in this matter. By merely glancing through a few British books he would have found references to injury-feigning among certain other species, and by looking through Australian publications (notably 'The Emu') he would have found many records of Passerine birds resorting to the device. Moreover, he would have learned that in Australia the trick is not confined to birds which nest on the ground, as John Burroughs declared long ago was the case in America and as Julian Huxley declared recently was the case in Europe. Here, then, is an instance of negative evidence in one land being destroyed by positive evidence elsewhere.

Australian birds that feign to be injured include tree-nesting Pigeons of several species, certain Plovers, certain Ducks, and (among Passerine birds) certain Robins, Whistlers, Wrens, Quail-Thrushes, Chats, and some few other small birds. It is to be noted—and this answers another of Swarth's queries—that injury-feigning is not constant throughout a family, nor, as far as I know, throughout a genus. Nor does it appear to be constant throughout a species. In a long experience with certain tree-nesting birds I have known injury-feigning to be practiced by them only on rare occasions, and a colleague has told me that after about thirty years' experience with the ground-nesting Pilot-bird, he recently, for the first time, saw one resort to the "broken-wing trick." What this apparent inconsistency in a species implies I cannot at present conjecture.

Regarding the question of cause and effect, it may be recalled that an English writer stated some years ago that it is not correct to speak of such a procedure as feigning injury. "The bird," he claimed, "is deliriously excited and has a fit." Supporting this view, W. H. Hudson wrote that when a nesting bird flutters to the ground it does so from pain and is for the moment incapable of flight. "Its efforts to recover flight and safety," he added, "cause it to beat its wings, and tremble, and gasp with open mouth." I suspect this belief to be based on scanty observation. There need be no doubt that the bird is excited, but to describe its actions as a "fit" is unsound. If it were incapable of flight it would scramble about in the one spot.

As a fact, it watches the intruder carefully while fluttering away from the nest, and if he does not follow it will fly back towards him and repeat the performance. It has no need to make "efforts" to recover flight, for it can do so at any moment. Anyone who thinks that, in such circumstances, a bird is really unable to fly should try to catch one of the little actors—and watch it flit to a safe place as soon as it has lured him from the nest.

Dr. Herbert Friedmann is quoted as saying that injury-feigning is a compromise between fear and the reproductive emotions. "Fear impels the bird to leave its nest; the bond to the nest and eggs or young prevents the bird from doing so; the result is a crippled departure." This conclusion seems perilously akin to the "incapable of flight" theory. It is difficult, in my experience, to distinguish between fear and discretion in respect of a bird leaving its nest; but even if we agree that the bird is afraid we need not necessarily agree with the remainder of Friedmann's theory. That is to say, we may fairly reject the implication that the bird, being torn between conflicting emotions, cannot help itself and thus staggers away. I am thoroughly convinced, after seeing scores of exhibitions on the part of numerous species of Australian birds, that such a belief is fallacious. It follows that I regard Friedmann's use of the term "crippled departure" as somewhat misleading. The bird is not crippled and is not departing; it is merely tumbling about the vicinity of the nest in an effort to deceive the intruder; and, as Swarth has pointed out, it sometimes returns from a distance in order to do so.

Another effective point in Swarth's letter is that when a Semipalmated Plover pretended injury, not only her mate but neighbouring pairs joined in the demonstration. In Australia this joining of forces has frequently been observed among certain Chats and Honeyeaters; when a pair of nesting birds flutter along the ground and utter distressful cries they are sometimes reinforced by other birds of the same species (which may or may not be nesting), and the whole company feigns injury. Are we to regard the coöperation of the other birds as "sympathy fits"?

On the whole, I think injury-feigning birds are animated by some emotion other than plain fear. Perhaps we may regard it as parental solicitude in nest-owners and social solicitude on the part of outsiders that join in the demonstrations. Moreover, I have no doubt that the performers appreciate what they are doing, if only on a basis of instinct. Their actions are just as resolute as those of birds which attempt to defend their homes by force, and just as intelligent as those of birds which, in time of supposed danger, carry their babies away on their backs, beneath the wings, or in the claws.

Apropos, it may be noted that Julian Huxley (in Bird Watching and Bird Behaviour), after tacitly rejecting the "fit" theory by noting that the performers "spring into the air when the enemy has been lured far enough from the nest," sums up in this way: "All the evidence is against the bird having any conscious purpose or knowledge of what it is doing; the shamming wounded is an inborn pattern of behaviour, like sneezing in ourselves." As to this, I suggest that, since Professor Huxley restricts the practice to ground-nesting birds, he did not weigh all the evidence, and, further, I suggest that it is not yet proved that the injury-feigning bird lacks conscious purpose. At any rate, it seems to me that the bird possesses at least instinctive knowledge of the situation, and that its actions thereby become instinctively purposeful.

How did the practice arise? Huxley's reference to "an inborn pattern of behaviour" is comfortable, but it does not take us far. An earlier British writer on bird behavior (Frank Finn), has suggested that the "drooping of the wings under

social excitement is no doubt the origin of the 'shamming lame' behavior common to so many birds when beguiling enemies away from their nests and young, as in the cases of the Partridge, Lapwing, and Sheldrake; though no doubt the habit, emotional at first, becomes afterwards an intelligent action, in some cases at all events." This suggestion is interesting. Personally, however, I think it more probable that the practice developed from encounters with reptiles or small mammals, and may have had its origin in genuine cases of semi-paralysis. I do not think it likely that the trickery was devised for the confusion of man, even though it is practiced largely upon him. It may, indeed, have been in vogue long before man came upon the earth.

Yours, etc.,
A. H. CHISHOLM
(Corr. Fellow A. O. U.)

"The Argus,"
Melbourne,
Australia.

Editor of 'The Auk':

In the late Mr. Swarth's letter on "Injury-feigning in Nesting Birds," in 'The Auk' of July 1935, he wrote that he could not recall the instance of a Passerine bird resorting to injury-feigning at the nest.

As, according to my recollections of British birds, the Meadow Pipit (*Anthus pratensis*) was a very decided instance of a Passerine bird so acting, I wrote to a friend of mine in England (Mr. J. Steele Elliott of Bewdley) for confirmation. Besides confirming my impression he adds "a far better example is the Reed Bunting (*Emberizia schoeniclus*)." In British Columbia I have had one experience of this kind an Oregan Towhee which was frightened from her nest and young on May 29, 1919, by my walking up to it. She feigned injury but the performance was not very pronounced.

Yours sincerely,
THEED PEARSE.

Courtenay, Victoria Island,
British Columbia.
March 6, 1936.

Birds Pairing with Mounted Specimens.

Editor of 'The Auk':

I was interested to read Messrs. Noble and Vogt's article on birds copulating with mounted specimens for over thirty years ago my mention of the fact in the press was ridiculed as a "traveller's yarn."

I mentioned then that when shooting Wood Pigeons (*Columba palumbus palumbus*) and Curlews (*Numenius arquata arquata*) over stuffed decoys, mounted on stands, both species repeatedly copulated with them not merely in isolated cases but often.

H. W. ROBINSON.

Lancaster, England.

Bat Banding—A Request for Cöoperation.

Editor of 'The Auk':

The example set by bird banding has led mammalogists to try various methods of marking bats to study their movements and migrations. Over 7000 bats have been banded to date by various workers in the United States and Germany; and many interesting returns have been recorded (Eisentraut, M, Zeitschrift für Morphologie