Observations on Anting by an Indian Myna

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The author reports his own observation of anting by an Indian Myna (*Acridotheres tristis*). He then discusses this curious habit, with some reference to the Australian literature on the subject and to some of the theories advanced to account for it.

On Sunday, January 17, 1965, I observed an Indian Myna anting. The time was approximately 6.30 a.m. and the bird continued anting for some seven or eight minutes. As this particular activity of birds is not observed every day perhaps a few thoughts on the subject are in order. The Indian Myna was one of the first birds to be observed in this country to engage in this somewhat strange behaviour. A. H. Chisholm in his paper "The History of Anting" (*Emu*, 1959) has set down an Australian bibliography which quotes letters to the Melbourne *Argus* dated April 27 and May 4, 1934, from readers who had observed Indian Mynas rubbing ants beneath their wings. The first Australian records of anting involve the European Starling (*Sturnus vulgaris*) in 1927 and again in 1934 when a letter from a Melbourne boy (April 12—*Junior Argus*) prompted A. H. Chisholm to refer to a Sydney man's report of seven years earlier and to suggest that the "curious practice" needed investigating.

Since these early notes, much has been written regarding the practice both here and overseas; birds have been photographed while engaged in the act and various theories as to why they act in this manner have been propounded.

There are two basic methods of anting, active and passive. Active anting occurs when a bird picks up an ant and applies it to body or feathers, and passive anting when the bird squats among the ants and allows them to crawl over and through its feathers. In active anting, observations indicate that the ants are applied either to the wings, body or ventral area. In some cases the ants are eaten after application whereas in others the crushed bodies are left scattered in the area in which the action has taken place.

My observation was of active anting. The bird picked up the ant and applied it to the underside of the wings, only moving the ant along the radius/ulna from the extremities in towards the body, then devouring the ant. At the moment of application the bird engaged in some erratic dancing movements, which suggested that there was some discomfort in the practice. It was as though the bird was undertaking a form of self-inflicted punishment rather than engaging in an enjoyable pastime.

Some theories refer to the use of the ants' formic acid as an insecticide to combat ectoparasites; as these birds are reputed to carry such "boarders", and as I have recently observed the same species nesting in the area, it could possibly be that this particular bird was trying to rid itself of some annoying agent by this method.

H. A. Salmon, observing a Grey Thrush (*Colluricincla harmonica*) anting in his backyard, noted that the ants were not eaten by the bird, whereas during a later observation of a Mudlark (*Grallina cyanoleuca*) engaged in a similar act, he noticed that the bird ate the ants.

I did not collect any of the ants being used by the Myna but I was close enough (about 8 feet above the bird and 10 feet to the side) to see that the ants resembled the brown and black Sugar ant which is plentiful in the district.

The list of species known to ant themselves is a long one; Chisholm refers to seven introduced and twenty Australian native species in "The History of Anting", and K. E. L. Simmons in his review of the "Anting Behaviour of Passerine Birds" records at least 74 species from various countries. It is remarkable that not only ants are used as mediums, for instances are on record of birds using mothballs, tobacco ash, lighted cigarettes, cigar stubs, small limes, various insects, hot chocolate, soap-suds and pungent-smelling bugs, all as quoted by Simmons; and bees, beetles, millipedes, aromatic leaves, grass-tree fragments as recorded by Chisholm. Certain lorikeets (*Trichoglossus* spp) have been observed to chew eucalypt shoots and apply the oil thus obtained to their feathers. Choughs (*Corcorax melanorhamphus*) engage in the habit of "dusting" but use the dust at times in a manner similar to the anting action of other birds, although they have been recorded using ants as well. Of course, dust-bathing is practised by many species and is so commonplace as not to be regarded which may be a pity as the passive form of anting could very well be involved in many instances.

The practice of anting still remains as a rarely recorded occurrence, although from the numbers of birds known to ant it is obvious that many instances must pass unobserved, or, if observed, then the watcher, being unaware that ants are used, does not realise the significance of the actions.

Bird-banders may possibly be able to shed some light on the much-discussed question, "why do birds ant?" if trapped birds are examined for ectoparasites, etc. An indication of what may be learnt from having "anted" birds captured and examined, can be seen from notes published in the *Wilson Bulletin*, April, 1963, on remarks made by Dr. V. B. Dubinin, a Russian parasitologist who died in 1958, on the effect of formic acid on feather mites. Four pipits which had been anting were collected and it was found that of a total of 732 mites, 70 were dead and 163 died within 12 hours. Four other non-anting pipits were collected and of a total of 758 mites only five died within the same period. These observations tend to confirm the theory that the birds use the ants to combat ectoparasites.

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An Unusual Superb Blue Wren Retrap

The sedentary habits of the Superb Blue Wren (*Malurus cyaneus*) were recently discussed by Rowley (1965). In view of this, a recent retrap record of this species in the Brindabella Ranges is of considerable interest. (See Recovery Round-up, page 41.)

This bird travelled from Lake George, N.S.W., to New Chum's Road, A.C.T., a direct line distance of 35 miles. As this movement may appear incredible, it is considered worthwhile establishing the validity of the retrap.

On March 9, 1963, the authors banded together at the southern end of Lake George. McKean banded 43 birds with size 010, numbers 49256 to 49297 inclusive. The Superb Blue Wren concerned was banded as a Juvenile with band 010-49261.

The species is common at Lake George and in suitable habitats throughout the Australian Capital Territory. It is also common in the foothills of the Brindabella Ranges.

The areas in the Brindabella Range in which banding work is being carried out are, with the exception of the area on Lower Lee's Creek, beyond the normal range of the species. At Lee's Creek it is decidedly rare and in 32 trips the species has been seen in the area on less than six occasions and only one bird has been banded. At New Chum's Road in 62 visits the species has been observed only twice.

The retrap was taken by Wilson in the course of a regular visit to New Chum's Road on August 21, 1965, and the bird was then in eclipse male plumage. As the bird was bearing a strange band and as only one of the species had been banded in the area previously, special care was taken to have the other two persons present verify the number.

McKean has done only a little banding in the general Canberra area and has not banded a Superb Blue Wren in the Brindabella or Tidbinbilla Ranges or about Canberra, and so it can be seen that there is no possibility of error at either the retrapping or banding end of this interesting movement.

Reference

Rowley, Ian, 1965. " The Life History of The Superb Blue Wren, *Malurus cyaneus*." *Emu*, 64: 251-297.

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