

## FURTHER REMARKS ON THE CRACTICIDAE

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My paper on the family Cracticidae or Streperidae (*Am. Mus. Novitate*, No. 1504, 1951) suffered from the shortcomings inherent in work with a group with which an author has no field experience. It is fortunate, therefore, that G. M. Storr (*S.A. Ornith.*, 1952, 20: 78-80) and others have pointed out some of my errors. One or two of the points raised deserve further comment.

When tentatively deciding to keep *Gymnorhina tibicen* and *G. hypoleuca* specifically distinct, I was perhaps influenced by the fact that there are several instances, especially in North America, of "species" coming together secondarily (often as a result of changes in the environment caused by man) and hybridizing to a limited extent. In such cases one can only seek to estimate whether or not the hybridization occurs freely and the hybrids are completely fertile; if so, the two forms are best considered races. On the other hand, if the hybrids "never seem to get anywhere," suggesting reduced fertility, then the chances are that natural selection will work to reduce hybridization still further. Specific status is indicated. In the Australian magpies, Mr. Storr believes there is complete hybridization, and that all the forms are races of one species, *tibicen*. On the other hand, Dr. Serventy of Perth has written to me as follows, under date of August 1, 1951:

"Most of us here would incline somewhat to your views of *Gymnorhina* relationships. *G. dorsalis* is obviously the south-west form of *leuconota*, but I feel that it best be considered a full species (ranking as a semi-species in zoo-geographical discussions). The forms *leuconota* and *dorsalis* are Bassian elements in the fauna and *tibicen* the Eyrean form (see the geographical chapter of the *Handbook* by Whittell and myself). The pattern is similar to a great number of other species where there is a Bassian representative, usually specifically separable from an Eyrean relative. In some cases, as in these *Gymnorhina*, the specific separation has almost been attained but not quite. Despite what you say, there is a hybrid zone at the frontiers between *leuconota* and *tibicen*. It

is fairly broad and I have mapped it at one place and there are other useful records to enable us to give it an approximate delimitation, though I agree with you that the literature is not particularly helpful. However, hybrids do not penetrate too far into the neighboring territories and the main stocks remain 'pure.' On the whole I would continue to consider *tibicen* specifically separable from *leuconota*."

The second question, as to whether to maintain the genus *Gymnorhina* or to merge it with *Cracticus* is also, I am afraid, a matter of opinion. In keeping the two separate I was influenced by the fact that the Cracticidae is a small, compact family of only a few species, so that generic limits can be a little narrower than in a large group. I am still not certain, furthermore, that one can justify retention of *Strepera* as a genus if *Gymnorhina* is united with *Cracticus*. This is the old problem of "not being able to stop" which faces anyone trying to reduce the obviously superfluous number of avian genera. I have concluded that one must, in such cases, compare with the type of a genus, the species being placed with it, and, when they become too different, halt the process, even though a string of perfectly intermediate species can be assembled. Otherwise, in some families, we shall, Linnaeus-like, end up with one genus. I am still inclined to favor three genera in the Cracticidae. The magpies (*Gymnorhina*) are long-legged, long-winged, short-tailed, largely terrestrial forms; the butcher-birds (*Cracticus*) short-legged, short-winged, bush birds. True, they are closely related, but they are adapted to rather different life niches.

As regards the phylogeny of the Cracticidae, I expressed the belief that the magpies (*Gymnorhina*) and "bell-magpies" (*Strepera*) are further from the ancestral type than are the smaller butcher-birds (*Cracticus*). Mr. Storr believes that this is upside down; perhaps he is right! In an earlier study of the Corvidae I reached the conclusion that the smaller jays are ancestral in a general way to the larger magpies and ravens, even though the latter in some ways are less specialized. This conclusion agreed with

studies of comparative behaviour made by Heinroth and others. Perhaps the parallel in the Cracticidae is spurious and led me into error. It seemed to me, however, that the butcher-birds are more likely the generality of songbirds than are the magpies and bell-magpies. The fact that the butcher-birds have some specializations of plumage, song and territorial behaviour lacking in *Strepera* does not, in my opinion, necessarily invalidate the conclusion that they are, all in all, more primitive than the bell-magpies in the sense of having retained the morphological and ecological aspect of the ancestral forms to a greater extent. My colleague, Dr. James P. Chapin, calls my attention to the fact that the tarsus is almost fully booted in *Strepera*, but not in *Cracticus*. *Strepera* is thus more "advanced" as far as this character is concerned.

The subspecific allocations in my paper should be considered in connection with Condon's extensive comments on this group, which appeared at about the same time (*S.A. Ornith.*, 20, 1951: 65-68). He has shown that the races *Gymnorhina tibicen finki* Mathews, which I did not recognise, and *Strepera versicolor centralia* Mathews, about which I was uncertain, are valid. Storr, incidentally, has referred to *centralia* as "an obvious relic from a more pluvial era." With such strong-flying birds (or for that matter with any flying bird), can we assume, merely because the range of a race is somewhat isolated by unsuitable country, that it dates back to a time when suitable terrain was continuous? *Strepera graculina crissalis* presumably reached Lord Howe Island by flying across the ocean, and *centralia* may have reached the isolated ranges where it lives by flying across the desert. Such events do, we know, sometimes take place as a result of storms or other unusual conditions.

Finally, I would like to correct a few errors of fact in my paper, brought to my attention by Dr. Serventy and Major Whittell, to whom I am indebted.

Page 7. In connection with the type locality of *Cracticus torquatus argenteus* Gould, Dr. Serventy points out to me that "Hanover Bay is one of the indentations of Brunswick Bay, between Collier Bay and York Sound. These birds [*argenteus*] do get into Western Australia—in the Kimberley Division—and it was identified from Argyle

Station in East Kimberley by C. F. H. Jenkins (*The Emu*, vol. 47, 1947, p. 41)."

Page 8. I was troubled by the notation "Gerrard" on the poorly labelled type of *Cracticus nigrogularis melli* Mathews. Major Whittell points out to me that this refers to Edward Gerrard, a London natural history dealer from whom Mathews obtained some specimens.

Page 25. I mentioned a specimen in the British Museum from what I took to be a locality, "Caskerill," in South Australia. Major Whittell thinks this is doubtless "Cockerell," indicating that the bird was one of a lot obtained from J. T. Cockerell. The entire reference to this specimen is best deleted, since there is apparently some doubt about the origin of many of the specimens in this collection.