

The morphs of Solomon Islands *Accipiter* spp. — a comment on Webb (1992)

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Webb (1992) claimed to have observed two 'black individuals' of the Imitator or Little Pied Sparrowhawk *Accipiter imitator* on Santa Isabel, Solomon Islands, i.e. an all-black, or wholly melanistic, morph. Brown & Amadon (1968) asserted that an 'all-black [morph] occurs', but this claim was not based on specimens and such a morph has not been described formally for this species. Critical analyses of specimens, and modern reviewers, have not admitted the existence of a black morph in this species (Mayr 1957; Wattel 1973; Schodde 1977; Hadden 1981; Coates 1985; D. Mead pers. comm.). However, an all-black (dark slate-grey) morph does occur in the similar, slightly larger (overlapping in size) and sympatric Pied Goshawk *A. albogularis* (from specimens; same sources). Brown & Amadon's error may have arisen because *imitator* was originally described as a race of the Pied Goshawk, which is sometimes called 'Pied Sparrowhawk'; hence possible confusion over which taxon has a black morph. All-black *albogularis* are reasonably frequent in the population (Brown & Amadon 1968; Schodde 1977).

Webb has advised (*in litt.*) that the factors that contributed to his identification of black individuals as *imitator* included: (a) apparently unusual proportions of putative black *imitator* (wings and tail appeared shorter than in pied and black individuals identified as *albogularis*); (b) a different cry from those heard personally and reported [my emphasis] for *albogularis*; (c) very knowledgeable and reliable Solomon Islanders' identification of the black birds as a type different from the one he (Webb) had called *albogularis*; and (d) later reference to Brown & Amadon's report of black *imitator* (a minor influence). Subtle differences in wing and tail proportions may in part be a sexual character in these size-dimorphic species; the other factors are discussed below.

Webb (1992) claimed that the two species, when soaring, could be distinguished by voice, one (*albogularis*) uttering a rapid series, the other a slow call *reo*.

The vocalisations of well-studied *Accipiter* species consist of two main types: a rapid chatter or *kek* series, and a slow scream, squeal or wail, both types being uttered by a given species (e.g. Cramp & Simmons 1980; Marchant & Higgins 1993; Debus et al. 1993). Webb noted the native onomatopoeic names, apparently based on the chatter and the wail respectively: 'suisui' for *albogularis*, 'khutureo' supposedly for *imitator*. However, taxa recognised by natives sometimes do not reflect those recognised by western ornithologists. Natives on Bougainville do not distinguish pied *albogularis* from *imitator* (Schodde 1977). Furthermore, 'khutureo' suggests that the taxon so-called utters both a chatter and a wail; Hadden (1981) transcribed the chatter of *albogularis* as *ku ku ku*. It seems more likely that the natives on Santa Isabel erroneously distinguish these small accipiters on plumage and ally that with a particular call: pied (*albogularis* + *imitator* = 'suisui') versus black (melanistic *albogularis* = 'khutureo'). This is not to deny that similar accipiters can be distinguished by voice, once their calls are well known (e.g. Debus et al. 1993).

Webb observed two black individuals, both of which uttered the wail; whereas he implied that during many sightings of pied individuals the chatter was often heard. This is to be expected, as the pied morph is more common than the black in *albogularis* (e.g. Brown & Amadon 1968; Schodde 1977) and the chatter is probably uttered more often than the wail. This is the case with the calls of a close relative of the Pied Goshawk (see Wattel 1973), namely the Brown Goshawk *A. fasciatus*, at least away from the nest (pers. obs.). Furthermore, most black specimens of *albogularis* are females (e.g. Schodde 1977), as is the case with other dimorphic Melanesian hawks (Debus et al. 1994); female Brown Goshawks, Grey Goshawks *A. novaehollandiae* and Collared Sparrowhawks *A. cirrhocephalus* utter the wail more stridently and frequently than do males (pers. obs.; P. Olsen pers. comm.). Alternatively, Webb may

have observed a hitherto undescribed display call by male (coincidentally black) *A. albogularis*.

Webb did not establish with certainty that an all-black morph occurs in *A. imitator*. Rather, it appears that he may have wrongly ascribed melanistic *albogularis* to this species. This means that he did not identify *imitator* with certainty, and his ornithological survey is one of several (apart from Schodde 1977) that have failed to record this species in the last two decades (e.g. Diamond 1975; Blaber 1990; Olsen 1994 and in prep.). Admittedly, some of these surveys were on islands where *imitator* is not known to occur, but is it really absent from those or just unrecorded? Schodde's (1977) first record for Bougainville was 50 years after the species' discovery.

The lack of records is of concern, because (as noted by Webb) *imitator* is very scarce, local and apparently declining, owing to rainforest destruction (globally threatened, category 'rare': Collar & Andrew 1988; Meyburg 1986). Furthermore, it may be threatened by continued DDT use and environmentally irresponsible methods of cleaning or disposing of pesticide containers (e.g. flushing DDT canisters in creeks: Olsen 1994). Even the more common, but declining, *A. albogularis* is 'insufficiently known' (Meyburg 1986).

There is a clear need for the plumages (adult male is unknown), vocalisations and field identification of *A. imitator* to be more fully described, and the ecology, biology and conservation status of the Solomon Islands endemics to be investigated.

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References

- Blaber, S.J.M. 1990. Checklist and notes on the current status of the birds of New Georgia, Western Province, Solomon Islands. *Emu* 90, 205-214.
- Brown, L. & Amadon, D. 1968. *Eagles, Hawks and Falcons of the World*. Country Life, Feltham, Middlesex.
- Coates, B.J. 1985. *The Birds of Papua New Guinea*, vol. 1. Dove, Brisbane.
- Collar, N.J. & Andrew, P. 1988. *Birds to Watch*. ICBP, Cambridge.
- Cramp, S. & Simmons, K.E.L. (eds). 1980. *The Birds of the Western Palearctic*, Vol. 2. Oxford University Press, Oxford.
- Debus, S.J.S., Edelstam, C. & Mead, D.A. 1994. The black morph of the Chestnut-shouldered (Bürger's) Goshawk *Erythrorhynchus buergeri*. *Australian Bird Watcher* 15, 212-217.
- Debus, S.J.S., Ley, A.J., Trémont, S.M., Trémont, R.M. & Collins, J.L. 1993. Breeding behaviour and diet of the Collared Sparrowhawk *Accipiter cirrhocephalus* in northern New South Wales. *Australian Bird Watcher* 15, 68-91.
- Diamond, J.M. 1975. Distributional ecology and habits of some Bougainville birds (Solomon Islands). *Condor* 77, 14-23.
- Hadden, D. 1981. *Birds of the North Solomons*. Wau Ecology Institute, Wau, Papua New Guinea.
- Marchant, S. & Higgins, P.J. (eds) 1993. *Handbook of Australian, New Zealand and Antarctic Birds*, Vol. 2. Oxford University Press, Melbourne.
- Mayr, E. 1957. Birds collected during the Whitney South Sea Expedition. 64. Notes on the birds of northern Melanesia 4. The genus *Accipiter*. *American Museum Novitates* No. 1823.
- Meyburg, B.-U. 1986. Threatened and near-threatened diurnal birds of prey of the world. *Birds of Prey Bulletin* 3, 1-12.
- Olsen, J. 1994. Some Time with Eagles and Falcons. Behavioural Ecology Research Group, University of Canberra, Canberra.
- Schodde, R. 1977. Contributions to Papuan ornithology. VI. Survey of the birds of southern Bougainville Island, Papua New Guinea. CSIRO Division of Wildlife Research Technical Paper No. 34.
- Wattell, J. 1973. Geographical Differentiation in the Genus *Accipiter*. Nuttall Ornithologists Club Publication No. 13. Cambridge, Massachusetts.
- Webb, H.P. 1992. Field observations of the birds of Santa Isabel, Solomon Islands. *Emu* 92, 52-57.