



**West African Ornithological Society**  
**Société d'Ornithologie de l'Ouest**  
**Africain**



**Join the WAOS and support  
the future availability of free  
pdfs on this website.**

<http://malimbus.free.fr/member.htm>

If this link does not work, please copy it to your browser and try again.

If you want to print this pdf, we suggest you begin on the next page (2) to conserve paper.

**Devenez membre de la  
SOOA et soutenez la  
disponibilité future des pdfs  
gratuits sur ce site.**

<http://malimbus.free.fr/adhesion.htm>

Si ce lien ne fonctionne pas, veuillez le copier pour votre navigateur et réessayer.

Si vous souhaitez imprimer ce pdf, nous vous suggérons de commencer par la page suivante  
(2) pour économiser du papier.

to be around 6 feet deep and was very muddy and the opposite bank and marsh was judged not firm enough to set foot upon. At the time of writing - January 1970 - the nest hole has had a deal of longish dry grass jammed into it and on several occasions a Grey-headed Woodpecker Mesopicos goertae has been observed on the tree top drilling purposefully away.

.....

REQUEST FOR INFORMATION AND COMMENT.

C. H. Fry.

When the ranges of two closely-related and/or ecologically similar bird species meet, there is usually 'character displacement' in the zone of overlap (differences between the species being more exaggerated where they are sympatric than where allopatric). In time this promotes ecological and morphological differentiation, so that the species can co-exist without much competition and become widely sympatric.

In exceptional cases, it has been postulated that the converse process of 'character convergence' can happen, with resulting similarities in colour, pattern and voice, promoting interspecific territoriality\*. Amongst some other birds there may also be convergence in appearance and behaviour to facilitate interspecific social interactions like flocking\*\*.

Some very impressive examples have been discussed, chiefly amongst Neotropical birds; if the theoretical explanations are further clarified, and if it can be shown that this 'social mimicry' or 'character convergence' is a widespread phenomenon, a field of extraordinary interest for experimentally-minded naturalists will be opened up and many affinities within and between genera will have to be examined afresh.

So far as I am aware, very little has been written about African birds in this context, but in a preliminary look at the field I have been impressed by the number of potential candidates for this sort of mimicry. However, my own experience is limited mainly to west Africa, and I would be glad to hear of other possible examples that you know of. No constructive theoretical development is likely to arise from such a compilation, because insufficient is generally known about the biology of the birds concerned; but publication, if warranted, may spur on more studies in the field if there is reason to suppose that visual and auditory resemblances between African birds interacting in nature are commonplace.

Attached is a list of pairs of species which may be worth closer consideration. Generally the criteria have been: (a) they are confusingly similar in the field; (b) there is an area of sympatry which is a substantial proportion of each species' range; (c) their habitats are similar or at least they meet often; and (d) they are probably not as closely related with each other as at least one of the pair is with other sympatric congeners. Perhaps the similarity between the species in some of the listed pairs is adventitious

or the result of close affinity or reasons other than character convergence from which a short-list could be made of the better examples.

I would be grateful to know of any pairs or groups of African birds other than those listed, which are suspiciously similar. Your comments on the list would also be most welcome (particularly since many of these are not known to me personally), especially if you can add anything about their interspecific reactions which might be significant (interspecific territoriality, sharing of habitats of food or other resources, 'bird parties', etc.). Do you know of any examples of vocal convergence?

\* M.L.Cody : Convergent characteristics in sympatric species : a possible relation to interspecific competition and aggression. *Condor* 71 (1969) 222-239.

\*\* M. Moynihan : Social mimicry : character convergence versus character displacement. *Evolution* 22 (1968) : 315-331.

Nomenclature after White, C.M.N. Check List of African Birds. 1960-65.

### I Convincing cases

*Aplopelia larvata* / *Columba malherbii*

*Centropus nonachus* / *Centropus senegalensis*

*Tylas eduardi* (Pycnonotidae) / *Xenopirostris polloni* (Vangidae)

(A remarkable instance from Madagascar, which is however outside my competence)

*Malaconotus sulfurepectus* / *Malaconotus blanchoti*; etc. etc.

*Oenanthe lugens* / *Oe. nonacha* / *Oe. deserti*.

*Cerconela tractrac hoeschi* / *C. schegelii benguellensis*.

*Neocossyphus rufus* / *Stizorhina fraseri fraseri*.

*Neocossyphus pensis* / *Stizorhina fraseri finschi*.

*Nectarina farosa* / *N. tacazze* / *N. kilimensis* (*tacazze* is territorial with the other two species).

*Nectarina tsavoensis* / *N. bifasciata* / *N. notata* / *N. mariquensis*.

*Pirenistes ostrinus* / *Spermophaga ruficapilla*.

### II Likely candidates

*Oxyura naeoa* / *Netta erythrophthalma*.

*Anas hottentota* / *A. erythrorhynchus*.

*Anas capensis* / *A. undulata* (similar specula and lack of contrast in plumage).

*Ixobrychus sturnii* / *Butorides striatus* (perhaps rather dissimilar).

*Eupodotis melanogaster* / *Eu. hartlaubii*.

*Gallinula chloropus* / *G. angulata*.

*Streptopelia* : several sympatric and similar species.

*Apus horus* / *A. caffer* / *A. affinis*.

*Ceyx picta* / *Alcedo cristata*.

*Merops pusillus* / *M. variegatus* (races of each vary in geographical parallel).

*Phoeniculus aterrinus* / *Ph. purpureus*.

*Phoeniculus castaneiceps* (♀, imm.) / *Ph. bollei*.

*Tockus erythrorhynchus* / *T. flavirostris*

*Pogoniulus bilineatus* / *P. subsulphureus*.

*Prodotiscus wahlbergi* / e.g. *Muscicapa* sp.

*Prodotiscus insignis* / -do- or warbler.

*Hirundo senirufa* / *H. senegalensis*.

*Troglodytes tenellus* / *Macronyx croceus*

*Macronyx croceus* / *M. füllebornii* / *M. aurantiigula*

*Anthus chloris* / *Macronyx croceus*.

*Pycnonotus barbatus tricolor* / *Py. nigricans*.

(Bulbuls are basically cryptically coloured, and in genera like *Andropadus*, with very many similar species, differentiation is as much on voice and behavioural characters as on plumage grounds).

*Baeopogon indicator* / *Indicator* sp. "The same sort of rusty smell as honey-guides" (Cave) suggests that the similarity of plumage may be more than fortuitous. Breeding biology unknown. Honey-guides and other brood parasites are special cases, e.g. adult, and pullus, cuckoos may be Batesian mimics. What is the significance, incidentally, of the immature plumage of *Indicator indicator*?

(*Indicator chloris*, *N. viro*; if laniids, their bulbul-like plumage is probably only cryptic; but if pycnonotids, convergence with *Malaconotus* may be socially induced).

*Mogabyas flavulata* / *Dryoscopus* spp. / *Laniarius ferrugineus*

*Melaenornis silens* / *Lanius collaris* (Batesian mimicry?)

*Laniarius ferrugineus* / *Dryoscopus* spp. / *Lanius* spp.

(Many southwest African chats are red-tailed or red-rumped).

*Turdus piaggiae* / *T. gurneyi* (especially on Mt. Kenya).

*Cossypha senirufa* / *C. heuglini* (Interspecifically territorial)

*Malacocincla rufipennis* / *Bradypterus* spp.

*Malacocincla pyrrhoptera* / *Alclippe abyssinicus*.

*Cisticola* and *Prinia*: the only ventrally-spotted members of these genera (*P. maculosa*, *P. pectoralis*, *P. flavicans ansorgei*, *C. textrix*) are all south African.

*Nectarinia pulchella* / *Anthreptes platura* (winter plumages similar).

(Probably several more sunbirds pairs or groups).

*Linurgus olivaceus* / *Oriolus* spp. or perhaps ploceid.

*Lamprolornis* spp. (especially short-tailed ones): several sympatric and similar species, often in mixed flocks.

*Spreo superbus* / *S. shelleyi* / *S. hilderbrandti*.

*Cinnyricinclus leucogaster* / *C. femoralis* / *Speculipastor bicolor*.

*Dicrurus ludwigii* / *Melaenornis* spp.

*Emberiza* spp? (there is much less variation in African than in the Palearctic; the same goes also for *Serinus* and *Carduelis*).

### III Marginal cases; resemblance due to close affinity?

*Bycanistes cylindricus* / *B. subcylindricus*.

*Bradornis pallidus* / *B. microrhynchus*

*Nectarinia hunteri* / *N. senegalensis*

*Nectarinia talatala* / *N. venusta*

etc. etc. etc.

.....