

SOME PECULIARITIES OF AVIFAUNAL DISTRIBUTION IN
PENINSULAR INDIA.

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(Communicated by Dr. S. L. Hora, F.N.I.)

When in a moment of enthusiasm I promised Dr. Hora to try and make an ornithological contribution to the Symposium on the Satpura Theory of floral and faunal distribution in Peninsular India, I did not have a very clear idea of what I would do. As a matter of fact, Salim Ali in his several papers has already dealt with the ornithological sidelights and I have only tried to place the south-west forms (so far known as Indo-Malayan species) into different groups based on their present distribution which may give us an indication of the time when they were cut off from their original source and also to show which way they may have come. I have not been able to follow this grouping to its logical conclusion, i.e., by establishing the relationships of the various species outside India but I offer these lists as the basis for further work in this connection.

Whistler in his Avifaunal Survey of Ceylon has dealt at some length with the 22 forms peculiar to that island and decided that the avifaunal relations are more with India than with Malaya.

In the Andamans, migrants, which do not come into Peninsular India, like:—

Phylloscopus fuscatus
Pericrocotus cinereus
Agropsar sturninus

Turdus obscura
Emberiza pusilla and *aureola*, and
Anthus cervinus

together with several resident forms of Parakeets, Pigeons, Collocalias and Cuckoo-doves, indicate closer affinities with Burma.

For peninsular India, south of the Garo-Rajmahal gap, my first group is of 'South West' forms which are restricted to the west coast of India and whose distribution does not, as at present known, link up with the Rajmahal section of the Garo-Rajmahal Gap.

It should, however, be mentioned that all these forms are not peculiar to the South-West, but are of Indo-Malayan or of Indo-Chinese origin, some of them having affinities even in the Western Himalayas.

(The northernmost point of occurrence is indicated against each species. An asterisk on the left indicates its occurrence in Ceylon as well, and one on the right, in the Andamans.)

LIST I.

Species.	Northern Limit of Distribution along Western Ghats. (Occurrences in the South- Eastern Ghats are in brackets.)
<i>Pycnonotus xantholaemus</i>	.. Malabar (Chitteri Range and Horsleykonda).
<i>Trochalopteron jerdoni</i>	.. ,, (three races).
<i>Trochalopteron cachinans</i>	.. ,, (two races).
<i>Brachypteryx major</i> ..	.. ,, (two races).
<i>Eumiyas albicaudata</i> ,,
<i>Ochromela nigrorufa</i> ,,
<i>Schoenicola platypura</i> ,,
* <i>Hirundo javanica</i> * ,,
<i>Anthus nilghariensis</i> ,,
* <i>Eurystomus orientalis</i> *	.. ,,

Species.	Northern Limit of Distribution along Western Ghats. (Occurrences in the South- Eastern Ghats are in brackets.)
<i>Lyncornis macrotis</i> ..	.. Malabar (Chitteri Range and Horsleykonda).
* <i>Nisaetus nipalensis</i> "
* <i>Baza jerdoni</i> "
<i>Dendrocitta leucogastra</i> ..	.. North Kanara (McMaster in Gawilgarh Hills?).
<i>Garrulax delesserti</i> "
<i>Argya subrufa</i> ..	.. (Shevaroy).
* <i>Rhopocichla atriceps</i> "
<i>Pycnonotus gularis</i> "
<i>Microtarsus poiocephalus</i> "
<i>Muscicapula pallipes</i> ..	.. (nearest subspecies in China).
<i>Arachnothera longirostra</i> "
* <i>Picus xanthopygaeus</i> ..	.. North Kanara (Central India).
<i>Dinopium javanense</i> "
* <i>Xanthocheilus rubricapilla</i> "
<i>Centropus bengalensis</i> "
* <i>Alcedo meninting*</i> "
<i>Micropus pacificus leuconyx</i> ..	.. North Kanara only.
* <i>Chaetura giganteus*</i> North Kanara.
* <i>Batrachostomus moniliger</i> "
<i>Hukua nipalensis</i> ..	.. (Shevaroy).
* <i>Irena puella*</i> Sawantwadi.
<i>Dicaeum concolor*</i> South Konkan.
<i>Sauropatis chloris*</i> South Konkan only.
* <i>Collocalia fuciphaga</i> ..	.. South Konkan.
* <i>Microscelis psaroides</i> ..	.. Matheran and Khandalla (McMaster in Gawilgarh Hills ?).
* <i>Iole icterica</i> ..	.. Khandalla.
<i>Sturnia malabarica blythii</i> ..	.. Bombay.
<i>Aethiopsar fuscus</i> ..	.. Bombay-Khandalla (Shevaroy and Chitteri Range).
* <i>Munia malacca*</i> Khandalla, Pachmarhi (Pakhal Lake, East Hyderabad; Kolair Lake between Godavari and Krishna).
* <i>Cinnyris lotenia</i> ..	.. Bombay (Nallamalai Hills, Chingleput, Madras).
<i>Cinnyris minima</i> ..	.. Bombay-Khandalla.
<i>Psittacula columboides</i> "
* <i>Ceyx erithaca*</i> "
<i>Dichoceros bicornis</i> ..	.. Mahableshwar
<i>Tockus griseus</i> ..	.. Bombay-Khandalla
<i>Falco tinnunculus objurgatus</i> ..	.. Bombay-Mahableshwar-Matheran (Shevaroy).
* <i>Accipiter virgatus besra</i> ..	.. Bombay.
* <i>Dendrophassa pompadora</i> "
<i>Columba elphinstoni</i> ..	.. Matheran-South Hyderabad.
<i>Hemicircus canente</i> ..	.. Dangs.
<i>Macropicus javensis</i> "
<i>Thereiceryx viridis</i> ..	.. (Shevaroy, Chitteri Range).

It will be noticed that of the 52 species extending along the West Coast up to North Kanara, Bombay or the Dangs, 19 occur in Ceylon and 9 in the Andamans. These 9 include 7 which are common to Ceylon. Special attention might be drawn

to *Sauropatis chloris* which has been recorded from a small area in the South Konkan and is then found in the Andamans.

LIST II.

We then have another list of 27 of the 'South West' forms which extend north to North Kanara, Bombay and the Dangs, usually much further than those on the first list but which occur again south of the Garo-Rajmahal Gap, i.e., in North C.P., North-Eastern Ghats and/or Chota Nagpur. 14 of these 27 species occur in Ceylon and 5 in the Andamans (including 3 common with Ceylon). The asterisk on the left indicates its occurrence in Ceylon and on the right, in the Andamans:

Species.	Northern Limit of Distribution in Western Ghats followed by records from other places in Peninsular India south of Garo-Rajmahal Gap.
<i>Cisticola exilis</i> ..	.. Malabar, Saugor in C.P., Kumaon.
* <i>Astur trivirgatus</i> ..	.. " Balaghat, Vizagapatam Hills.
* <i>Dendrophassa bicincta</i> " " " "
* <i>Excalfactoria chinensis</i> ..	.. " East Hyderabad, Chota Nagpur, (Bhopal, Central India).
* <i>Oreocinclla dauma</i> ..	.. N. Kanara, Chota Nagpur.
<i>Vivia innominatus</i> ..	.. N. Kanara, Vizagapatam Hills.
* <i>Rhopodytes viridirostris</i> ..	.. N. Kanara, Vizagapatam Hills, (Chitteri Range, Nallamallais, Ellore).
* <i>Merops leschenaulti</i>* ..	.. N. Kanara, East Hyderabad State, Chota Nagpur (Shevaroy).
<i>Alcemerops athertoni</i> ..	.. N. Kanara, Pachmarhi, Vizagapatam Hills, (Chitteri and Shevaroy).
<i>Indicapus sylvaticus</i> ..	.. N. Kanara, Raipur, Seoni in C.P., Sambalpur.
* <i>Lophotriorchis kinnerii</i> ..	.. " Chaibassa.
<i>Ducula badia</i> ..	.. " Vizagapatam Hills.
<i>Cryptoplectron erythrorhynchum</i> ..	.. " Chanda and Sironcha in C.P., Vizagapatam Hills.
<i>Chibia hottentotta</i> ..	S. Konkan, Chota Nagpur.
* <i>Hydrocissa coronata</i> ..	.. " " (Gumsoor in Ganjam).
<i>Chaptia aenea</i> ..	.. Bombay-Khandalla, Vizagapatam Hills (Shevaroy, Chitteri Hills, Bastar).
* <i>Gracula religiosa</i>* ..	.. Bombay, Sambalpur and Goomsoor.
<i>Coryllis vernalis</i>* ..	.. Bombay-Khandalla, Vizagapatam Hills.
* <i>Ictinaetus malayensis</i> ..	.. Bombay-Mahableshwar, Pachmarhi area C.P., Bastar, Vizagapatam Hills.
* <i>Muscadivora aenea</i>* ..	.. Bombay, East and South Hyderabad, Chota Nagpur (Chitteri, Palkonda, Nellore, Jey-pore).
* <i>Hemipus picatus</i> ..	.. Patchily throughout Western Ghats, C.P. and then in Vizagapatam Hills.
<i>Tephrodornis gularis</i>* ..	.. North Kanara, Dangs, Vizagapatam.
<i>Aethopyga siparaja</i>* ..	.. " " Rajmahal Hills.
* <i>Chrysocolaptes guttacrastatus</i>* ..	.. " " Vizagapatam Hills.
* <i>Harpactes fasciatus</i> ..	.. Dangs, Khandesh, Vizagapatam Hills, Chota Nagpur (N. of Ellore).
<i>Caprimulgus macrourus</i> ..	.. North Kanara, Dangs, Gawilgarh Hills, Balaghat, Vizagapatam Hills.
<i>Ninox scutulata</i> ..	.. Dangs, Chota Nagpur.

It will be noticed that in some species there appears to be a gap in distribution between North Kanara and the Dangs, i.e., they are absent from the South Konkan and Bombay. There is then a very appreciable gap in our knowledge of their distribution between the northern extremity of the Western Ghats and the hills south of Rajmahal Hills.

Mr. Salim Ali has expressed the opinion that further research along the Satpuras in Central India would lead to many of these species being linked up in their distribution. Personally, I think that there is an alternative possibility of the species having reached South-West India through the Eastern Ghats. Our knowledge of the natural history of the Eastern Ghats is much scantier than that of the West. Few people have done any serious collecting and most of the information that is available from that area is in the form of fragmentary notes. On south of the Rajmahal Hills, the Chota Nagpur area is common to both the Satpura route and one southward through the Vizagapatam Ghats. The data from the Vizagapatam Ghats form an important part of List No. II and also support the opinion that the migration moved southwards in this direction. Bastar State which holds many ornithological and other natural history secrets is also in this direction. Mahendragiri in the Northern Circars and the Nallamallai and other Hills which go to form the Eastern Ghats have not been carefully worked and it is quite possible that they may have been an important highway to Malabar and Ceylon. It is of course possible that this area merely forms a *cul-de-sac* southwards and is of no further significance.

The Eastern Ghats also appear to form an important route for some migrant forms which are known from the Malabar area but have not been recorded in the strip of Western Ghats farther north.

LIST III.

The following are partial to evergreen biotope and the evidence indicated against each of them shows that they now use, as they have presumably always done in the past, the Eastern Ghats highway:—

- | | | |
|-----------------------------------|----|------------------------------------------------------------------------------------------------------|
| * <i>Tarsiger brunnea</i> | .. | North Kanara, Malabar, Manbhumi and Vizagapatam Hills (common). |
| * <i>Geokichla wardii</i> | .. | Mysore, Vizagapatam Hills. |
| <i>Lalage melaschista</i> | .. | North Kanara, Gumsoor, Chota Nagpur. |
| <i>Muscicapula superciliaris</i> | .. | North Kanara, Mysore, Narsampet in East Hyderabad, (Bhopal and Gwalior), Vizagapatam Hills. |
| * <i>Muscicapula rubeculoides</i> | .. | Malabar, North Kanara, Nallamallais, Vizagapatam Hills. |
| <i>Alseonax ruficauda</i> | .. | Malabar, S. Kanara, Nellore. |
| * <i>Alseonax muttui</i> | .. | Travancore, N. Kanara, Secunderabad, S. Hyderabad (Nallamallais). |
| <i>Homochlamys p. pallidipes</i> | .. | Vizagapatam Hills. |
| * <i>Oriolus chinensis</i> | .. | Malabar, North Kanara, Vizagapatam. |
| <i>Clamator coromandus</i> | .. | Ceylon, Malabar (regular visitor), North Kanara, Bombay, South Konkan (Straggler), Carnatic, Madras. |
| * <i>Baza leuphotes</i> | .. | Travancore, Pondicherry, Trichinopoly, Nellore. |
| * <i>Scolopax rusticola</i> | .. | Malabar, Nilgiris, N. Kanara, Shevaroy and Jevadi Hills, Vizagapatam Hills. |

LIST IV.

There are some more winter visitors to extreme South India chiefly from the Eastern Himalayas and whose line of migration appears to follow the Eastern Ghat route:—

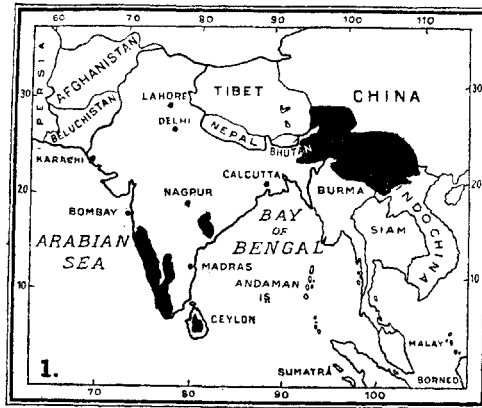
<i>Calliope calliope</i>	..	North Kanara, Bombay (Straggler), Vizagapatam Hills (common).
<i>Turdus unicolor</i>	..	Chota Nagpur to Raipur and Vizagapatam Hills.
* <i>Geokichla citrina</i>	..	Gumsoor, Chingleput, Chota Nagpur.
<i>Lanius c. cristatus*</i>	..	Malabar and North Kanara, Hyderabad State, Seshachalam and Nallamallai Hills (common in Andamans).
* <i>Lanius cristatus luscionensis</i>		Travancore (once), common in Andamans.
<i>Pharngmaticola aedon*</i>	..	Malabar, Nellore, Vizagapatam Hills.
<i>Phylloscopus proregulus</i>	..	Chota Nagpur.
<i>Seicerus burkii whistleri</i>	..	Vizagapatam Hills.
* <i>Locustella certhiola*</i>	..	Ceylon and Andamans.
<i>Anthus hodgsoni</i>	..	Malabar, N. Kanara, Balaghat, Godavery Delta.
<i>Chalcites xanthorhynchus</i>	..	Madras.
* <i>Chalcites maculatus*</i>	..	Madras (Straggler).
* <i>Falco severus</i>	..	Malabar.
* <i>Erythropus amurensis</i>	..	N. Kanara, Carnatic, Nellore, Rajahmundry.
* <i>F. t. interstinctus</i>	..	Coimbatore
* <i>Circus melanoleucus</i>	..	Malabar, N. Kanara, Bombay (rare), Balaghat, Chingleput, Vizagapatam Hills (common).

LIST V.

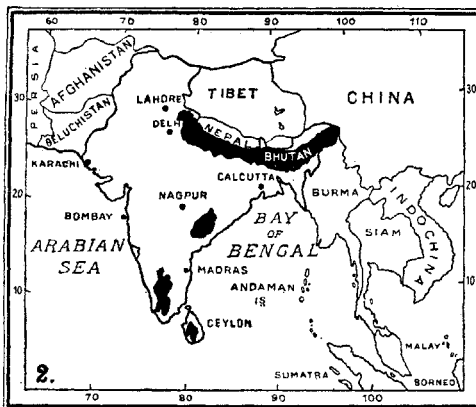
The last list is of resident forms which have been found south of the gap but which do not appear to have penetrated far into Peninsular India. Where their ranges have been extended further southwards, it will be found that the Eastern Ghats theory is supported. It will be noticed that *Mixornis gularis rubricapilla* goes right down into Mysore. The status of *Tyto longimembris* is doubtful as there is no record of its breeding in this area and it may possibly be a migrant:—

<i>Dendrocitta formosae</i>	..	Mahendragiri, Vizagapatam Hills. Jerdon got a specimen killed in the Eastern Ghats and Horsfield also had one from Madras.
<i>Stachyridopsis rufifrons</i> <i>ambigua</i>		Vizagapatam Hills.
<i>Mixornis gularis rubricapilla</i>		Chota Nagpur, Vizagapatam Hills, Bastar, Mysore.
<i>Otocompsa flaviventris</i>	..	Chota Nagpur, Vizagapatam Hills (South of Pachmarhi).
<i>Leucocirca albicollis</i>	..	Chota Nagpur
<i>Muscicapula poliogenys vernayi</i>		Vizagapatam Hills.
<i>Lanius nasutus nigriceps</i>	..	Chota Nagpur, Vizagapatam Hills.
<i>Tyto longimembris</i>	..	Nilgiris and Palnis, Nellore District.
<i>Alsocomus puniceus</i>	..	Orissa Hills.
<i>Anthraceros malabaricus</i>	..	Chota Nagpur.

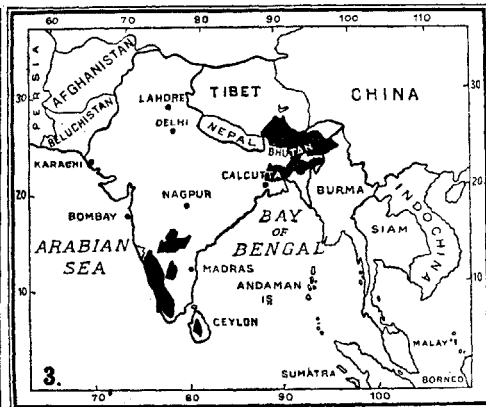
I would also like to make it clear that the species described as 'South-West' forms have been arbitrarily chosen as there is no hard and fast definition of this term. The matter has also been looked at entirely from the point of view of Indian ornithology with little or no reference to the neighbouring countries. To obtain a true



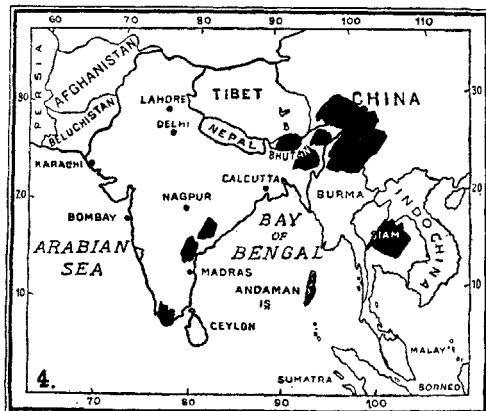
Oriolus chinensis



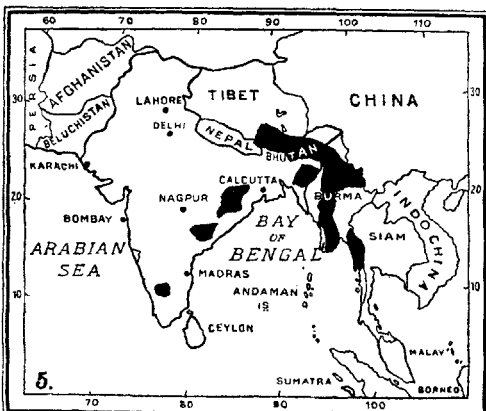
Geokichla wardi



Alseonax muttui



Phragmaticola aedon



Mixornis rubricapilla

idea of the general trend of distribution and migration it would be necessary to take into consideration allied forms in the neighbouring countries, i.e., not only in China and Malaya but also in Madagascar and Africa. The flow of migration from China would have to be compared and co-ordinated with the Palaearctic elements which come in from the north-west and overlap much about the same area.

The data handled are by no means complete. All the information is haphazard and piecemeal covering widely scattered areas. The more one studies a problem of this kind, the more one realizes the insufficiency and superficial character of the work which has so far been done and how totally inadequate it is for formulating new theories. I must also confess that I have not had the opportunity of recently looking up the geological and other data of this area and have no idea as to how this fits in with the alternative Eastern Ghats route suggested above.

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