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NOTES ON BIRDS OBSERVED IN THE COMOROS ON BEHALF OF THE SMITHSONIAN INSTITUTION

by A. D. Forbes-Watson

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Introduction

At the request of Dr. S. Dillon Ripley I visited the Comoros to ascertain conditions and regulations regarding the making of scientific collections there for the Smithsonian Institution. I spent a fortnight on the islands, and, whilst passing through Tananarive, Madagascar, made similar enquiries there. The results of this reconnaissance follow.

Whilst conducting this enquiry I was greatly helped by many people; I would like to take this opportunity to thank the following, who particularly went out of their way to help:

Air France was wonderful in providing introductions and in general facilitating my work. In particular, M. Louis Henry of Nairobi, Regional Manager for Africa, and M. S. Barthelez in Tananarive were most helpful.

On Grand Comoro, M. Pierre Besnault, of the Veterinary Department, was extremely kind and helpful, and also assisted with translations. He also took me to various places of interest.

I would like to thank Dr. S. Dillon Ripley for permission to publish this report, and my friend Con Benson for helpful advice and suggestions.

The avifauna cannot be expected to have altered much in the last seven years, but two species, both introductions, have increased their range since 1958. One, indeed, is a recent introduction and is not mentioned by Benson. This is the domestic pigeon "Columba livia," which I saw at Fomboni (Moheli), Mutsamudu (Anjouan), and Dzaoudzi and Mamoutzou (Mayotte). The other, Passer domesticus, has spread on Pamanzi Islet, Mayotte and has reached the main island; I also saw it on Anjouan, whence it had previously not been recorded.

Suggestions for further work in the Comoros

I think that a further expedition to the Comoros so soon after the 1958 expedition would be justified on the following grounds:

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- 1. A further general study collection, which, if properly conducted, would have no detrimental effect on the population of any Comoran endemic, would be of great importance in the New World, where there is apparently no comprehensive collection from the Comoros. The only races which might have only a few birds left both occur on Anjouan; Otus rutilus capnodes may be extinct, and only one Accipiter francesii pusillus was seen in 1958.
- 2. Although the avifauna is now probably fairly well-known taxonomically, it is very likely that some new and exciting discoveries can be made, particularly on Moheli and Mayotte. The best means would be extensive mist-netting in the more remote forests. This method still produces surprises in such a well-worked area as Kenya.
- 3. An enormous amount has still to be learnt of the biology and ecology of all the species. One aspect which would repay study is the voices, particularly of closely-related birds, i.e., the two Microscelis spp. and the two Nesillas spp. on Moheli; Dicrurus spp. (why is there none on Moheli?); Nectarinia spp. and Zosterops spp. To this end sound-recordings would be the most valuable material, and might help in elucidating relationships.
- 4. The breeding of the endemic genus <u>Humblotia</u>, confined to Grand Comoro, is still unknown. Benson (p. 71) suggests October as being the most likely month in which to find the nest.
- 5. There are still some interesting problems on relationships to be worked out, i.e., Nesillas mariae and N. typica on Moheli; as Benson says he only arbitrarily separated a particular population as belonging to the new species. Only field observation, particularly regarding voice, can really show whether he "guessed" correctly (see his discussion p. 81). On Moheli there are two species of Microscelis, M. crassirostris and M. madagascariensis, and their comparative ecological requirements are still unknown. On Grand Comoro the latter species has two so-called phases, which may, possibly, actually represent populations of sibling species.
 - 6. There are some interesting points regarding distribution:
 - a. Why is there no Otus, Accipiter or Dicrurus on Moheli?
 - b. Why is there no Coracopsis, Nesillas or Turdus on Mayotte?
- c. Why are <u>Treron australis</u> and <u>Cyanolanius madagascarinus</u> confined to Moheli? It is not the closest island to Madagascar, from which their nearest relatives are known.
- d. Why are only two species of swift known from each island; in all, except Grand Comoro, made up of Apus barbatus and Cypsiurus parvus? On Grand Comoro the former is replaced by Chaetura grandidieri, whose nearest relations are in Madagascar, and yet it only occurs on the farthest island from there.

Perhaps, with further collecting and observation, it may be found that the apparent gaps are only gaps in knowledge, and are not real gaps at all.

- 7. It would be interesting to know if any of the introductions have any effect on the indigenous avifauna. The recent introduction of domestic pigeons on Moheli, Anjouan and Mayotte may also, eventually, become of importance.
- 8. One or two of the off-lying islets would be worth investigating. I flew over Chaco Islet, off the eastern end of Moheli, and it was very "white-washed." On Anjouan a M. Flobert, who had been stationed on Moheli, said he had visited Chaco once, but could tell me nothing of the birds he saw there, except that there were many, were nesting, and that some dived at him. Few sea-birds have been recorded from the Comoros, but this may be a breeding-station of species not often seen near land, i.e., Procellariidae, Sulidae and Fregatidae.

Since the above was written I have received a letter from Benson (pers. comm. 18 Nov. 1965), in which he says: "I do most sincerely hope that you can go back to the Comoros. I have always hankered to go back myself to clear up various points. . . I can't tell you how pleased I should be if you can The real plum for you to make for is Moheli, which was almost unknown before we went there, and where due to the vagaries of boats we could only spend two weeks. You might well pick up something there which we didn't find at all. And do try and find out what you can about the ecology of the two Microscelis and two Nesillas there. You also ought to look at the small islands off the coast for sea-birds. Chaco (eastern side) we couldn't get to at all. Another plum would be to find a nest of Humblotia on Grand Comoro. We were there at the wrong time, and I'd guess October would be the time. Oh, I do hope you can manage this!"

The Comoro Islands

I spent a total of two weeks in the Comoros, in which time I visited all four islands. My itinerary follows:

| 12 Oct. 1965. | Nairobi-Tanarive, Madagascar |
|---------------|----------------------------------|
| 14 | to Moroni, Grand Comoro |
| 14-19 | on GRAND COMORO |
| 19 | to Fomboni, Moheli |
| 19-21 | on MOHELI |
| 21 | to Mutsamudu, Anjouan |
| 21-23 | on ANJOUAN |
| 23 | to Dzaoudzi, Mayotte |
| 23-28 | on MAYOTTE |
| 28 | to Tananarive via Moron i |
| 30 | to Nairobi, Kenya. |
| | |

All localities mentioned in the accounts, etc., can be found in the new 1:50000 maps of the archipelago. Briefly, the parts of each island I was able to get to were:

Grand Comoro: Moroni; west coast Moroni-Mitsamiouli-"Hole of the Prophet;" Mitsamiouli-La Grille; M'vouni, La Belvedere, Nioumbadjou on western slopes of Mt. Karthala; ridge between La Grille and Mt. Karthala.

Moheli: Fomboni and forest areas immediately above.

Anjouan: Mutsamudu, and coast to west of it; Mutsamudu-Bamboa-Domoni.

Mayotte: Dzaoudzi, etc., Pamanzi Islet; Mamoutzou and forest immediately above it; Lake Carrieni (= Dziani Carehani), via Combani and Passamainte; Mavingoni via Dembeni.

The last ornithological work done in the Comoros was that of the British Ornithologists' Union Centenary Expedition 1958, led by Mr. C. W. Benson. It spent a total of 100 days in the islands, from 6 August - 13 November 1958. I would like to express here my great appreciation of Benson's report (Ibis 103b, 1960:5-106) on this expedition. It was an invaluable guide to me whilst I was on the islands and, indeed, before I landed. The ornithological part of my report is based directly on his; the nomenclature used follows Benson or, if the species is not mentioned by him, Praed and Grant's name is used ("Birds of East and Northeast Africa," 2 vols.).

For an excellent general account of the islands, and detailed descriptions of each, I cannot do better than refer to Benson's paper. Since he was there in 1958 there have been only a few changes. The seat of government has moved from Dzaoudzi, Mayotte to Moroni, Grand Comoro. There are now extremely good large-scale maps of all the islands. Grand Comoro and Anjouan even have a few miles of bituminised roads. There is a Forest Officer actually stationed in the islands, at Moroni, and the government has recently purchased La Grille forest, but will still allow grazing therein.

List of Birds recorded from the Comoros

Endemics underlined; * new records (by Forbes-Watson 1965); GC Grand Comoro, A Anjouan, Mo Moheli, My Mayotte

| 1. | Podiceps ruficollis capensis | | Мо | My* | Α |
|-----|------------------------------------|------|-----|-----|----|
| 2. | Phaethon lepturus lepturus | GC | Мо | Му | Α |
| 3. | *Fregata ariel subsp. | | Mo* | • | |
| 4. | Ardea cinerea cinerea (= johannae) | GC | Мо | Му | Α |
| 5. | A. humbloti | | Mo | My* | A? |
| 6. | Egretta alba melanorhynchos | GC | Мо | Му | Α |
| 7. | *E. garzetta | | Mo* | _ | |
| 8. | Ardeola ibis ibis | GC | Mo | My | Α |
| 9. | A. ralloides | | Mo | ?My | A? |
| 10. | A. idae | ?GC* | | Му | |
| 11. | Butorides striatus rhizophorae | GC | Mo | Му | Α |
| 12. | Dendrocygna viduata | | Мо | ?My | |
| 13. | Milvus migrans parasitus | GC | Мо | Му | Α |
| 14. | Accipiter francesii griveaudi | GC | | • | |
| | pusillus | | | | Α |
| | brutus | | | My | |

| 15. | Circus spilonotus <u>macrosceles</u> | GC | Мо | My | Α |
|------|---|------|-------|------|-----|
| 16. | Falco peregrinus radama/perconfuscus | GC | Mo | My | Α |
| 17. | F. newtoni aldabranus | | | | Α |
| 18. | Coturnix coturnix africana | GC | Мо | My | Α |
| 19. | Numida meleagris mitrata | GC | | Му | Α |
| 20. | Porphyrio alleni | GC | | ?My | |
| 21. | Gallinula chloropus pyrrhorhoa | | | My | Α |
| 22. | Charadrius hiaticula tundrae | GC | Мо | My | A |
| 23. | Ch. leschenaulti | GC | Мо | Му | , , |
| 24. | *Ch. fulvus | | | My* | |
| 25. | Ch. squatarola | GC | Мо | My | |
| 26. | Arenaria interpres interpres | GC | Мо | My | Α |
| 27. | Calidris ferruginea | GC | Мо | My* | A |
| 28. | C. minuta | GC | 1-10 | riy | А |
| 29. | | GC | Ma* | My* | |
| 30. | | GC* | Mo* | My " | |
| 31. | 1 0 | GC. | Mo | M | ٨ |
| 32. | Tringa hypoleucos hypoleucos | | Мо | Му | A |
| 33. | T. nebularia | GC * | Мо | Му | A |
| | T. cinerea | GC* | 1 f d | | A |
| 34. | Numenius arquatus orientalis | a a | Mo* | Му | |
| 35. | N. phaeopus | GC | Мо | Му | Α |
| 36. | Glareola ocularis | GC* | | Му | |
| 37. | Dromas ardeola | GC | | Му | A |
| 38. | Sterna bergii thalassina | GC | Мо | Му | |
| 39. | S. bengalensis par. | GC | | Му | |
| 40. | Columba arquatrix <u>polleni</u> | GC | Мо | Му | Α |
| 41. | Streptopelia picturata <u>comorensis</u> | GC | Мо | Му | Α |
| 42. | S. capicola tropica | GC | Mo | My | Α |
| 43. | Turtur tympanistrius | GC | Мо | Му | Α |
| 44. | Treron australis griveaudi | | Мо | • | |
| 45. | Alectroenas sganzini sganzini | GC | Мо | My | Α |
| 46. | Coracopsis vasa makawa | GC | | • | |
| | comorensis | | Мо | | Α |
| 47. | C. nigra sibilans | GC | | | A |
| 48. | Agapornis cana cana | GC | Мо | Му | A |
| 49. | Eurystomus glaucurus glaucurus | GC | 110 | My | A |
| 50. | Leptosomus discolor discolor | | Мо | My | |
| • | gracilis | GC | 110 | , | |
| | intermedius (= anjouanensis) | 00 | | | Α |
| 51. | Alcedo vintsioides johannae | GC | Мо | My | A |
| 52. | Merops superciliosus superciliosus | GC | Мо | Му | A |
| 53. | Tyto alba affinis | GC | Мо | My | A |
| 54. | Otus rutilus pauliani | GC | MO | riy | А |
| J.T. | mayottensis | GC. | | N.5 | |
| | | | | Му | ٨ |
| 55. | capnodes Anus barbatus marattanaia | | M - 4 | N | A |
| 56. | Apus barbatus mayottensis | 00 | Mo* | Му | A |
| | Cypsiurus parvus griveaudi | GC | Мо | Му | A |
| 57. | Chaetura grandidiori mariae | GC | | | |
| 58. | Microscelis crassirostris moheliensis | ~~ | Мо | | _ |
| 59. | M. madagascariensis parvirostris (= rostrata) | GC | Мо | Му | Α |
| 60. | Coracina cinerea moheliensis | | Мо | | |
| | cucullata (= sulphurea) | GC | | | |
| 61. | Humblotia flavirostris | GC | | | |
| | | | | | |

62. Terpsiphone mutata comorensis

| 02. | voelzkowiana | | Мо | | |
|------|--|------------|-----|----------|------|
| | pretiosa | | | Му | |
| | | | | 11) | A · |
| . m | vulpina Turkani harabasi | | | | A |
| 63. | Turdus bewsheri bewsheri | GC | | | 71 |
| | <u></u> | GC . | Мо | | |
| | moheliensis | CC | MO | | |
| 64. | Baxicola colquata voolotion | GC | 34. | | |
| 65. | Nesillas <u>mariae</u> | | Мо | | |
| 66. | N. typica moheliensis | ~~ | Мо | | |
| | 510VICadata | GC | | | |
| | longicaudata | | | | A |
| 67. | Cyanolanius madagascarinus comorensis | | Мо | | |
| 68. | Dicrurus <u>fuscipennis</u> | GC | | | |
| 69. | D. forficatus potior | | | | A |
| 70. | D. waldeni | | | Му | |
| 71. | Corvus albus | GC | Мо | My | A |
| 72. | Acridotheres tristis tristis | GC | Мо | Му | Α |
| 73. | Zosterops senegalensis kirki | GC | | | |
| 74. | Z. mouroniensis | GC | | | |
| 75. | Z. maderaspatana comorensis | | Mo | | |
| ,,, | anjouanensis | | | | Α |
| 76. | Z. mayottensis <u>mayottensis</u> (= semiflava) | | | My | |
| 77. | Nectarinia notata moebii | GC | | 7 | |
| //. | voeltzkowi | | Мо | | |
| 77.0 | | GC | | | |
| 78. | N. humbloti | 00 | Мо | | |
| 70 | mohelica | | 140 | | A |
| 79. | N. comorensis | | | Му | 11 |
| 80. | N. coquereli | GC | Мо | му Му | A* |
| 81. | Passer domesticus arboreus | GC | Мо | • | A |
| 82. | Foudia madagascariensis | GC | | My | A |
| 83. | F. eminentissima eminentissima | CC | Мо | | |
| | consobrina | GC | | M | |
| | algondae | | | Му | ٨ |
| | <u>anjouanensis</u> | a a | 34. | 3.6 | A |
| 84. | Lonchura cucullata scutata | GC | Мо | Му | A |
| | | | | | |
| Summ | ary of forms recorded on each Island | | | | |
| | | | | | |
| | | GC | Мо | My | A |
| | 1 Endemic Genus | 1 | - | - | - a |
| | 7 " species with no races | 3 | 1 | 2 | 1 b |
| | 1 " " " 2 " | 1 | 1 | - | - c |
| | 1 " " " 3 " | _1_ | 1 | - | 1 d |
| Tota | $\overline{9}$ " " | 5 | 3 | 2 | 2 e |
| | 5 " races of endemic species (c+d) | 2 | 2 | | 1 f |
| | 34 " " confined to 1 island | 12 | 9 | 5 | 8 g |
| Tota | | 14 | 11 | 5 | 9 h |
| | 2 " " " 2 islands | 1 | 1 | | 2 i |
| | 1 " " " " 3 " | 1 | 1 | 1 | l j |
| | 8 11 11 11 4 11 | 8 | 8 | 8 | 8 k |
| Tota | The second secon | 23 | 21 | 14 | 20 1 |
| Tota | · · · · · · · · · · · · · · · · · · · | 26 | 22 | 16 | 21 m |
| 106 | 1. Endemic race no longer recognized | 1 | 1 | 1 | 1 n |
| | 1 Lindemite face no fonger feedgiffed | • | - | - | |

GC

Other species (not endemic)
Total species (1+(m+n+o)

| GC | Мо | My | A (cont'd) |
|----|----|----|------------|
| 35 | 34 | 38 | 30 o |
| 62 | 57 | 55 | 52 p |

Additions to the Comoro Avifauna

In October 1965 I made the following 15 extensions to range:

2 Species new to list (It is interesting to note that both these species have recently been observed in Madagascar - see O. Appert L'Oiseau et la Revue Française d'Ornithologie Vol. 35, 1965:66-69.) 24. Charadrius fulvus 30. Philopachus pugnax GC 1 Species suspected but not previously identified 3. Fregata ariel Mo 1 Species reinstated 7. Egretta garzetta Мо 10 Extensions to previously known range 1. Podiceps ruficollis My 5. Ardea humbloti Му 27. Calidris ferruginea Мγ 29. Crocethia alba Mo My 33. Tringa cinerea GC 34. Numenius arquatus Мо 36. Glareola ocularis GC 55. Apus barbatus Мо 81. Passer domesticus Α 1 Species not certainly identified ?10. Ardeola sp., probably idae GC $\overline{14+}?1$ 3+?1

Breeding behaviour of some sort was seen in the following 18 species, including 4 (marked *) for the first time in the Comoros:

| 2. | Phaethon lepturus | | | My | |
|--------------|------------------------------|----|----|----|---|
| 6. | Egretta alba | | Мо | | |
| 8. | Ardeola ibis | | | | Α |
| 11. | Butorides striatus | GC | | | |
| 14. | Accipiter francesii | | | My | |
| *15. | Circus spilonotus | | | • | Α |
| *50. | Leptosomus discolor | | | My | |
| *51 . | Alcedo vintsioides | | | • | Α |
| 59. | Microscelis madagascariensis | | | My | |
| 64. | Saxicola torquata | GC | | • | |
| *68. | Dicrurus fuscipennis | GC | | | |
| 70. | Dicrurus waldeni | | | Му | |
| 71. | Corvus albus | GC | Мо | Му | Α |
| 72. | Acridotheres tristis | | | Му | |
| 77. | Nectarinia notata | | Мо | • | |
| 80. | Nectarinia coquereli | | | Му | |
| 81. | Passer domesticus | GC | Мо | Му | |
| 83. | Foudia eminentissima | | Мо | -7 | |
| | | 5 | 5 | 9 | 4 |

Of these, nesting has never been observed before in two species:

- 50. Leptosomus discolor
- 68. Dicrurus fuscipennis

Notes on Individual Species

Immediately following each name is the known status of each species on each island:

GC Grand Comoro, Mo Moheli, My Mayotte, A Anjouan

- not recorded

? of possible occurrence

no brackets if seen by me

() if not seen by me

* extension of previously known range

_ breeding noted by me

1. Podiceps ruficollis

- (Mo) My* (A)

Noted once, when 12 were seen at one time on the crater lake Dziani Dzaha on Pamanzi Islet, Mayotte on 23 October. All were in pairs, except for one group of four birds.

This is an extension of range, but Benson (p. 30) thought it might occur on this very lake.

2. Phaeton lepturus

(GC) (Mo) My (A)

Only seen in one place, at Moya on the east coast of Pamanzi Islet, Mayotte, on 24 October, when at least 20 were seen along two miles of cliffs. Their central tail-feathers were exceptionally long in all cases, except that two birds had short central tail-feathers, but were otherwise in adult dress. They were flying in pairs along the cliff near the top, and were fluttering at particular spots where thick bush grew to the brink. Only one was seen to land, and it immediately took off again. They gave a creaky tern-like "kyi!" in flight. An apparent display was seen, in which the lower bird of a pair flying along the cliff carried on in normal flight, but the other, which was a few feet behind and above it, made fairly prolonged glides above its partner with half-raised wings and the tail depressed vertically.

I looked carefully at each bird seen, and all were of this species.

3. Fregata ariel

- Mo* - -

A pair was seen, and positively identified, on 20 October at Fomboni, Moheli. They were sailing without a wing-flap in the direction of Grand Comoro, visible on the horizon.

Benson (p. 104) saw Frigate Birds on Moheli and Anjouan, but could not identify the species.

4. Ardea cinerea (GC) Mo My A
On 19 October I saw a single bird on the rocks to the east of
Fomboni, Moheli.

On 23 October one was seen on the coast near Mutsamudu, Anjouan.

In the crater lake Dziani Dzaha on Pamanzi Islet, Mayotte two single birds were seen 23 October. On 24 October six were seen together on the beach at the eastern end of the islet at high tide; they allowed a fairly close approach.

5. Ardea humbloti

- (Mo) My* (?A)

On 24 October on the east side of Pamanzi Islet, Mayotte a single bird was watched for a half an hour from a distance of about 40 yards. It was fishing in the thicker weedy patches in shallow water on the reef at low tide. It was seen to catch a deep-bodied green fish c. 6 inches long. The bird stood motionless with lowered head and wings slightly out from the body; it gave a quick jab and caught the fish just behind the gills. It was maneuvered quickly until its head pointed down the bird's gullet, and immediately swallowed. About five minutes later it caught another very small fish in the same way.

There was a black plume on the nape. The legs were dull grey-brown; bill dull yellowish, blackish at the base; iris yellow.

6. Egretta alba

(GC) Mo My A

Not seen on Grand Comoro.

Near Fomboni, Moheli four nests were found in a baobab tree on 19 October. There were three well-grown young and 13 adults in the tree. They were seen along the coast nearby on several occasions, fishing in tidal rock-pools. The colors of the soft parts were the same in all birds seen: iris pale yellow; bill yellow; tarsi black.

Near Mutsamudu, Anjouan one was seen on 23 October.

On Mayotte one was seen on the airfield at Dzaoudzi on 14 October.

The Moheli colony is evidently the same as that seen by Benson (p. 32). From his photograph (pl. 3) the nests seem higher than when I saw them.

7. Egretta garzetta

- Mo* - -

One was seen on the airfield at Fomboni, Moheli on 21 October. Old records are rejected by Benson (p. 103) as probably referring to E. alba. This bird was in the white phase, and was observed closely.

8. Ardeola ibis

GC Mo My A

On Grand Comoro it was seen twice on 17 October, at Mitsamiouli three birds were seen in a Baobab tree; and two tame birds were accompanying cattle at Ivembeni at c. 2500 feet a.s.l.

On Moheli it was more common. There were at least 40 near Fomboni, and on 20 October 30 were seen to fly to the river at dusk. All were seen to take repeated drinks of the fresh water.

On Anjouan there was a colony of perhaps 40-50 nests in two trees near the shore, not far from the airfield to the north of Mutsamudu.

A few of these birds had bright pink bills, as is recorded by Benson (p. 33) for one of his Anjouan birds. I have seen the same thing in Africa and Madagascar at breeding colonies.

On Mayotte they were fairly common, and there must have been a roost somewhere near the airfield on Pamanzi Islet, as many birds could be seen flying steadily in that direction each evening. Most of these came from Mayotte itself, and small groups flew fairly low over the water from there, usually passing close to Dzaoudzi. I looked for a breeding colony near the airfield, but saw no sign of one.

- 9. Ardeola ralloides (Mo) (?My) (?A)

 Not seen by me, and only three were seen by Benson (p. 34) on Moheli.
- 10. Ardeola idae ?GC* My At Mitsamiouli, Grand Comoro a small heron, probably of this species, was seen flying into a thick plantation on 17 October. If it was indeed this species it is new for the island A. ralloides has also not been recorded, but it is less likely to occur (see Benson:34).

An undoubted A. idae in non-breeding dress was seen on 24 October at the eastern end of Pamanzi Islet, Mayotte in a thick bush just above the beach. When disturbed it settled in shallow water on the reef. Benson saw several on Lake Carrieni, but this was completely dry when I visited it on 25 October.

11. Butorides striatus $\underline{\text{GC}}$ Mo My (A) $\underline{\text{On 17 October a few birds were seen at Mitsamiouli, Grand Comoro}$ and at the "Hole of the Prophet" on the northwest coast; and a single bird was seen in a plantation at Maouni at c. 2000 feet a.s.l.

On 18 October a nest containing two eggs was found in the small mangrove swamp at Voidjou, about five miles north of Moroni, Grand Comoro. This nest was about 15 feet up on a thin outer branch of a mangrove tree; it was a small stick structure about 15 inches across and six inches deep. The eggs were in a slight depression about two inches deep and nine inches across. The nest was built of thin twigs, and there was no lining. The eggs are clear pale blue, measuring 40.5×28 , 39×29 mm.

On Moheli only one was seen, and that in a coconut plantation on 20 October.

None was seen on Anjouan.

On Mayotte there was generally one to be seen on the reefs near Dzaoudzi, Pamanzi Islet. This bird, a female, was seen closely enough to note that the iris and legs were bright yellow. All the males seen had orange legs; thus, in four males which were seen on the reefs off the eastern shore of the islet, all had orange legs.

12. Dendrocygna viduata - (Mo) (?My) - Not seen by me, and Benson only saw one party on Moheli (p. 35).

13. Milvus migrans

GC Mo My A

Common on all four islands, especially at Fomboni, Moheli and at Dzaoudzi, Pamanzi Islet, Mayotte. One on Moheli was seen eating a very large crab claw. One had been killed on the airfield at Dzaoudzi, presumably by an aircraft. No sign of breeding was seen.

14. Accipiter francesii GC - $\underline{\text{My}}$ (A) One was seen at Nioumbadjou, Grand Comoro on 18 October. It was molesting a pair of Dicrurus fuscipennis which had a nest, and I suspect the Goshawk robbed it. This bird was dark grey above, paler on the head, and pure white below (but see Benson:36). The iris was dark yellow.

On Mayotte they were not uncommon, and a pair was watched near the Leptosomus nest on a few occasions on 25 and 26 October. The female was seen calling on several occasions "ooi! i! i!" and "oo, oo i! i!... i! i!," etc., the "oo" descending slightly; also "ooik!." The female bent her head when the male made a querying "werk!... werk!...," and he mounted her with a loud series of "i-ik!... i-ik!... " He stood on her back for a short time before actually mating, and the act was accompanied with beating wings. He made another, but unsuccessful, attempt shortly afterwards. The female solicited by turning her back to him and bending down; after this attempt he stood upright on her back for a short time. The male was very noticeably the smaller sex.

Two nests were found on Mayotte on 26 October above Passamainte. They were large stick structures in the tops of Eucalyptus trees, and were about 200 yards apart.

All those birds seen were extremely tame.

15. <u>Circus spilonotus</u>
Seen on all four islands.

GC Mo My \underline{A}

On Grand Comoro a bird was seen twice, flying along the forest edge at Nioumbadjou on 18 October.

On Moheli several were seen on 19 and 20 October, also flying along the forest edge.

On 21 October a nest was found on Anjouan at c. 2000 feet a.s.1. near the bitumen road from Mutsamudu to Bambao, where it crosses the ridge at Col de Patsi. It was on the top of a road-cutting, and consisted of a flat pad of dried grass tufts (each being complete) on the tops of some short Lantana bushes about two feet from the ground. It contained three eggs (one of which was broken when I was descending the slippery cutting), which were unmarked bluish-white, slightly nest-stained, measuring 47 x 37, 48.5 x 38 mm. The birds were seen to change over: the female dropped slowly to the nest with motionless wings, after a short time the male left and circled overhead. The female flushed from the nest when I was close to it.

On Pamanzi Islet, Mayotte a beautiful black-shouldered grey male was seen on 23 October on the rim overlooking the crater lake Dziani Dzaha.

16. Falco peregrinus
Not seen by me.

- (GC) (Mo) (My) (A)
- 17. Falco newtoni --- (A) There is apparently only one old record. Not seen by me or Benson.
- 18. Coturnix coturnix

 A few were seen and heard in cultivation near Fomboni, Moheli on 20 October.

Two were seen in long grass on Pamanzi Islet, Mayotte on 23 October.

The call is exactly the same as that heard in Africa.

- 19. Numida meleagris
 Not seen by me, but I was told by M. Besnault that he had seen one a week before (i.e., on 7 October or thereabouts) on Grand Comoro.
- 20. Porphyrio alleni
 Not seen by me or Benson.

(GC) - (?My) -

- 21. $\frac{\text{Gallinula chloropus}}{\text{I visited Lake Carrieni}}$ -- (My) (A) $\frac{\text{I visited Lake Carrieni}}{\text{Lake Carrieni}}$, Mayotte on 25 October, but it was dry and there were no birds there. Those seen on this lake by Benson (p. 42) had probably retreated to the perennial stream mentioned by him.
- 22-35. Shorebirds
 For details of sightings turn to the table on the following page.
- 22. Charadrius hiaticula

GC Mo My (A)

23. Charadrius leschenaulti

GC Mo My -

24. Charadrius fulvus

A single plover seen with seven Charadrius squatarola was identified as belonging to this species, and this identification has been confirmed by Mr. John G. Williams. It was slightly smaller than its companions, but had the same build; it was more brownish, darker on the crown and had a pale eye-stripe; there was no definite wing-pattern and it did not have black axillaries; the center of the belly was very slightly darker.

25. <u>Charadrius squatarola</u>

GC Mo My -

26. Arenaria interpres

GC Mo My (A)

27. <u>Calidris ferruginea</u>

GC Mo My* (A)

28. <u>Calidris minuta</u>

GC - - -

| | | | | | | | | | | | | | | | 13 |
|--------------|---|------------------|--------|----|-------------|---------|----------|-------------|-----|-----|-------------|------|------|------|------------------|
| 29. | Crocethia alba | | | | | | | | | | | GC | СМо |)* N | Лу* - |
| 30. | Philopachus pugnax | | | | | | | | | | | | GC |]* - | - - |
| 31. | Tringa hypoleucos | | | | | | | | | | | GC | СМо | му | r (A) |
| 32. | Tringa nebularia | | | | | | | | | | (| (GC) | l Mc | о Му | r (A) |
| 33. | Tringa cinerea | | | | | | | | | | | C | GC* | | (A) |
| 34. | Numenius arquatus | | | | | | | | | | | | - 1 | lo* | Му - |
| 35. | Numenius phacopus | | | | | | | | | | | GC | СМо | о Му | (A) |
| reco | Shorebirds All those species of Charadriidae and Scolopacidae previously recorded were seen by me; in addition, one plover (24) and the Buff (30) had not been previously recorded. The following table summarizes all sightings. All are coastal except for those at the crater lake Dziani Dzaha. No species was seen on Anjouan. | | | | | | | | | | | | | | |
| Cran | d Comoro | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| | 16 Moroni 17 Mitsamiouli Hole of the Prophet Mitsamiouli 18 Voidjou 19 Moroni airstrip | : 1 : 1 | 30 | • | i : : | 12 8 | 4 | i : : | 2 | : 1 | 3 6 3 | | 3 | | 1 3 1 |
| Mohe Oct. | li 19 Fomboni " airstrip 20 " | 4 | 5 | • | 3 2 | | 30 31 | • | 4 5 | • | 2 1 | | • | 1 | 8 1 2 7 |
| Mayo Oct. | tte 14 Dzaoudzi airstrip 23 Dzaoudzi | 4 11 | 3 5 | • | 1 4 | 3 7 | | | 2 | • | 1 | | • | 1 | 3 4 5 |

There seem to have been more Palaearctic migrants in 1965 than in 1958 (see Benson 42-44).

Dziani Dzaha

Dzaoudzi airstrip 70 .

shore near airstrip 5 45 1 12 35 S. " " " 20

24 Dzaoudzi Moya 36. Glareola ocularis

GC* - My -

On 19 October three were seen on the Moroni airstrip, Grand Comoro. When the birds were on the ground the head was bobbed rapidly up and down, especially if someone approached closely. A plover-like "wit!" was heard.

On 24 October one was seen on the Dzaoudzi airstrip, Mayotte. It was eating a large insect on the ground; two Acridotheres tristis flew to it from about 30 yards away and chased the Pratincole, but it flew off with the insect and the Mynas got nothing.

One of the Moroni birds was a beautiful male.

37. Dromas ardeola GC - (My) (A)
Only seen once, on 17 October at Mitsamiouli, Grand Comoro when
three (one adult, two apparently immature) were seen together on some
rocks near the sea. The adult made a "druuet" in flight, and a creaky
"witik! witik!" with bill wide open when approached closely; this is
probably an alarm-note.

38. <u>Sterna bergii</u> GC (Mo) My - One was seen on 14 October at Moroni airstrip, Grand Comoro.

On 23 October 73 were counted resting on a sand-bank near Dzaoudzi, Pamanzi Islet, Mayotte. They were seen there daily thereafter. Several single birds were seen on various occasions not far away, and were probably members of the same flock.

39. <u>Sterna bengalensis</u> Not seen by me or Benson. (GC) - (My) -

40. <u>Columba arquatrix</u> Not seen on Anjouan. GC Mo My (A)

On Grand Comoro it was seen on Mt. Karthala (Nioumbadjou, La Belvedere) and La Grille. On Moheli it was seen as low as c. 300 feet a.s.l., and it was seen on Mayotte on several occasions. All these sightings were in forest. They are much tamer than their relatives in Africa.

41. Streptopelia picturata
Seen on all four islands, and common in cultivation as well as in forest, but always near clearings or tracks or just inside the forestedge. Also seen in a mangrove swamp at Voidju, Grand Comoro.

The call is deeper than that of <u>S. capicola</u>, and was written thus: a deep, slow "cuc- coo oo!" with the <u>second syllable</u> accented; a similar, but shortened, form "ooo-wu," the second syllable being much deeper, was also heard; also, a deep "oo-wah!her," with the last note sounding like a hoarse inhalation.

A bird bought by M. Besnault from some youngsters on Grand Comoro had the soft parts as described by Benson (p. 47), except that the pale chestnut iris was paler near the pupil.

- 42. Streptopelia capicola
 Not uncommon in cultivation, and seen on all four islands. They
 were sometimes seen together with S. picturata, but in general were more
 prone to be confined to open cultivation, plantations and the dry
 coastal shrub. The call was exactly the same as that heard in Africa.
- 43. Turtur tympanistrius $\frac{}{\text{Not seen on Anjouan.}}$ On the other islands it was seen or heard in thickets and overgrown cultivation from sea-level to c. 1500 feet a.s.1. The call is exactly the same as that heard in Africa.
- 44. Treron australis

 Not seen by me, but I was unable to get to Bandamale, Moheli, which was the only place where Benson obtained it.
- 45. Alectroenas sganzini GC Mo My (A) Not seen on Anjouan, but on the other islands it was not uncommon in forest. It has the habit of sitting in the open in a conspicuous place, and is very tame.

Calls were a deliberate deep "wu" or "wow(u)," and "ou," the "u" being deeper.

- GC (Mo) (A)
 Only seen on Grand Comoro, at La Belvedere, Nioumbadjou and La
 Grille in forest, and also once flying over a coconut plantation at
 c. 300 feet a.s.l. In flight it looks quite unlike any African parrot,
 and reminded me strongly of an elongated ragged crow with a truncated
 head. They were very tame and allowed a close approach; thus, on 18
 October I stood watching a pair eating fruit in a tree about ten feet
 from me. Normal parrot-like screeches were the usual noises made; a
 pair mating at La Belvedere on 15 October were making a "woo-oo," the
 second note descending.
- 47. Coracopsis nigra
 Only seen on Grand Comoro, and there only on Mt. Karthala, at La
 Belvedere and Nioumbadjou. In habits it is very like C. vasa, but it
 is more inclined to feed in the mid-stratum. This species is also
 tame; in flight it had the same crow-like appearance as the larger
 species.
- 48. Agapornis cana GC (Mo) My (A)

 Seen in cultivation and plantations on Grand Comoro and Mayotte;
 they were more common on the latter and flocks of 20 were not unusual.
- 49. Eurystomus glaucurus
 Only one was seen, on 25 October near Mamoutzou, Mayotte; it was sitting motionless in the top of a tree overlooking the forest.

50. Leptosomus discolor

GC Mo My (A)

Not seen on Anjouan. On the other islands it was commonest on Mayotte. A nest was found on this island on 25 October - for a full description see A. D. Forbes-Watson <u>Ibis</u> vol. 109, 1967:425-430, "Observations at a nest of the Cuckoo-Roller Leptosomus discolor."

51. Alcedo vintsioides
Seen on all four islands.

GC Mo My A

On Grand Comoro three were seen on the coast (one at Itsandra, and two at the "Hole of the Prophet") and one in a coconut plantation at Memboidjou at c. 1000 feet a.s.1.

On Moheli one was seen on a perennial stream above Fomboni at c. 500 feet a.s.1.

On Mayotte one was seen in the mangrove swamp near Mamoutzou on 25 October.

On Anjouan an occupied nest was found on 20 October in an earthen road-cutting on the coastal road east of Mutsamudu. It was about 1-1/2 inches in diameter, a small tunnel about five feet above the road. Both parents were seen, and both puffed up the white patches on the sides of the neck. The bill was black, feet bright orange. Another bird was seen on two occasions on the dam on the road from Mutsamudu to Bambao at c. 700 feet a.s.l.

52. Merops superciliosus
Only seen on Moheli and Mayotte.

(GC) Mo My (A)

On Moheli several were seen in plantations and hawking over the beach, even, on occasion, catching flying insects actually over the sea. A pair was seen on 19 October near a river bank near Fomboni; though one of the birds had a bedraggled tail, no nesting-tunnel could be found. They were making soft quiet warbled "doodlededu" sounds.

On Mayotte many were noticed on Pamanzi and near Mamoutzou.

53. Tyto alba GC (Mo) My (A)
On Grand Comoro one was seen near Itsandra on 18 October at dusk
in a coconut plantation.

On Pamanzi Islet, Mayotte two were disturbed in trees near the crater lake Dziani Dzaha on 23 October. On 24 October one was seen on the airstrip two hours before sunset. It flew to a stump in grassland, and sat for a few minutes looking down; after a while it flew to another stump, and did the same. It was not seen to attempt to catch anything, but no doubt it was hunting, as is recorded by Benson (p. 60).

On Mayotte I was told they were called "vurundulu" locally.

54. Otus rutilus (GC) - (My) (A)
Not seen by me, no doubt because I was unable to be in the correct habitat after dark.

On Mayotte I was told they were called "kitunturuki" locally.

55. Apus barbatus - Mo* My (A)
Seen on Moheli and Mayotte; it has not been recorded previously
from the former.

On 19 and 20 October about a dozen were seen about two miles west of Fomboni, Moheli. A pair of these was seen at close range in strong sunlight - they were black (or very dark brown), with the wings browner than the back, and the throat was pale, but not conspicuously so; the tail was slightly forked.

On Mayotte a pair was seen near Dzaoudzi, Pamanzi Islet on 23 October, and many single birds and pairs were seen hawking above the forest on the main island.

Benson points out that some of these birds could, perhaps, be $\underline{\text{Apus}}$ apus, though this is less likely.

- 56. Cypsiurus parvus GC Mo My A Common and conspicuous on all four islands near palm trees. No signs of breeding were seen.
- 57. Chaetura grandidieri GC - GC Only known from Grand Comoro, where I saw it commonly in the forest near Nioumbadjou, and once near Itsandra at sea level.

Benson's comparison with $\underline{\text{Psalidoprocne}}$ spp. is apt, as it flies low along a track through the forest, patrolling back and forth, exactly as do Rough-wing Swallows in Africa.

- 58. Microscelis crassirostris
 Only known from Moheli from one specimen. I saw a bird which was larger and darker than the ubiquitous M. madagascariensis on 19 October in forest near Fomboni at about 400 feet a.s.l. The call was slightly different from other bulbul calls heard in the islands, and was written as a repeated "chochuiry."
- 59. Microscelis madagascariensis

 A common and conspicuous bird throughout the archipelago, in any habitat from thickets and mangrove swamps to plantations and true forest. A pair was seen with building material on Mayotte on 26 October, and was apparently building a nest high in a forest tree. The usual note was a Pycnonotus-like chatter. An apparent alarm-call was a mewing "nyeeeea" or "mieeee(wi)!". The birds were usually bold and tame. They were often seen making long, vertical flights to catch a flying insect.
- 60. Coracina cinerea GC (Mo) - Only seen at Nioumbadjou, Grand Comoro; on 18 October several pairs

were seen in mixed bird-parties in the forest. They were usually found in the mid-stratum, and occasionally in the undergrowth. All those seen were of the grey (not olive) form. A male foraging low down in a tree was heard to make a chick (fowl)-like "seeoo, seeoo."

61. <u>Humblotia flavirostris</u> (GC) - - - Especially looked for at Nioumbadjou, but not seen.

Benson (p. 72) says it is rare.

62. <u>Terpsiphone mutata</u> Not seen on Anjouan. GC Mo My (A)

On Grand Comoro they were seen in forest at Nioumbadjou and La Grille, and in mangroves at Voidju. All males had white in the wing and comparatively short tails.

On Moheli several were seen in the forest near Fomboni at c. 500 feet a.s.1., and one was seen in Fomboni itself. Most of the males were of the very pale chestnut phase, as mentioned by Benson (p. 73).

On Mayotte they were very common. Most males were in the white phase, but a few were maroon-chestnut, with only short tails in contrast to those of the white phase. One of these maroon-chestnut birds, with the central rectrices just projecting, was associated with a party of Zosterops mayottensis. A pair near the Leptosomus nest spent a lot of time chivvying a pair of Accipiter francesii that were breeding nearby.

All notes heard were similar to those of T. viridis in Africa.

63. Turdus bewsheri

GC Mo - A

On Grand Comoro it was only seen at La Grille, on 17 October; the three birds seen there were all high up in trees; one was pulling at some lichen on a branch, but whether this was for a nest, or whether it was searching for food, could not be ascertained.

On Moheli several were seen in forest and on forest-edges; they were mostly on the ground, but when disturbed would fly up into trees.

On Anjouan one was seen on 22 October in a ylang-ylang plantation.

64. Saxicola torquata
Seen in grassy country above c. 2000 feet a.s.l. on Grand Comoro.

Two immatures were seen along the track in forest on La Grille, and a female was seen with nesting material nearby, but not in forest.

In habits they were identical to African birds. Males were seen to make towering flights on several occasions, which were, perhaps, simply fly-catching flights, but might have been a form of display.

65. Nesillas mariae - (Mo) - - Not seen, no doubt due to the fact that I was unable to visit the high forest on Moheli in the time available.

Nesillas typica

GC (Mo) - (A)

Only seen on Grand Comoro at La Grille and Nioumbadjou in forest. They would skulk in the undergrowth, but would come out to take a look if one "squeaked," when they would make a sharp "chep."

Cyanolanius madagascarinus

- Mo - -

Seen once, when four (a male and three females or young) were seen together on the forest edge above Fomboni, Moheli at c. 500 feet a.s.1. This group was industriously searching through the leaves of trees, and often came quite close to the ground. They were making a harsh "cgrehcgreh," which might have been an alarm-note. The colors of their soft parts were as noted by Benson (p. 84).

Dicrurus fuscipennis

GC - - -

A total of five was seen at Nioumbadjou, Grand Comoro on 18 October. Two of these were paired and had a nest. This was in forest near the track, and my attention was drawn to it by the antics of the drongos and an Accipiter francesii, which was apparently trying to rob the nest, and, indeed, I think it was successful. The hawk was close to the nest, and one of the drongos would land near it and spread the tail (which was noticeably brownish), making a chick(fowl)-like "chlew," and then attacking the hawk so viciously that it had to fly off. It came back after a short while, however, and I think it was then that it robbed the nest. It flew off again, after an attack by one of the drongos. The other then settled on the nest, but left again almost immediately - my impression was that the nest was then empty.

Unfortunately, the nest was inaccessible and I was unable to inspect it closely, but it was a neat substantial cup (for a drongo) about 30 feet from the ground, and was built in a small fork. In Africa D. adsimilis and D. ludwigii build nests which are slung in the fork, but in the present nest I was struck by the fact that it was built more on, rather than in, the fork (see also the account of D. waldeni).

Dicrurus forficatus Two seen perched on sisal poles near Bambao, Anjouan, near sea level.

Dicrurus waldeni

- - My -Three birds were seen in forest on the east side of Mayotte above Passamainte on 26 October. Two of these were paired and had a nest in the thin twigs at the top of a Eucalyptus tree about 60 feet above the ground. This nest was conspicuous but was slung as in D. adsimilis and D. ludwigii in Africa (but see D. fuscipennis).

Benson never saw this species on the east side of Mayotte (p. 86).

GC Mo My A Corvus albus Common throughout, and was even seen flying over forest, and it settled in degraded forest.

Breeding was obviously in full swing. On 15 October, at Itsandra, Grand Comoro a bird was seen flying with a stick. A total of 15 nests

was found; all were near the coast, except one near La Grille, which was at c. 2500 feet a.s.l. Details of all these nests are as follows: Grand Comoro, 17 October seven nests (two in figs, two in kapok, three in baobabs). Moheli, 19 October two nests (in baobabs, one in the same tree as the colony of Egretta alba).

20 October three nests (all in Baobabs).

Anjouan, 21 October one nest (in kapok near airfield).

Mayotte, 25 October one nest (in Dzaoudzi town square).

26 October one nest (near Mamoutzou).

On the beach at Fomboni, Moheli a freak was seen with two normal birds; this bird was completely featherless on some of the parts of the body where it would have had black feathers, i.e., the whole head, and most of the upper back and belly were bare; there were also some scattered white feathers on the rump and wings. I did not see any other crow molest it; indeed, its two companions seemed to treat it as a normal bird.

A crow was seen near a mangrove swamp near Mamoutzou, Mayotte with a fresh fish about four inches long, but this was probably not actually caught by the bird.

72. Acridotheres tristis

Common and conspicuous throughout the archipelago, particularly in plantations and cultivation, but also in degraded forest on Mayotte, where a nest was seen on 26 October. This was built behind a large flake of bark high up in a tree.

A habit noted on all four islands, which I have not seen recorded elsewhere, is their association with domestic stock. Thus, it was seen perched on cattle on all four islands, and on donkeys on Moheli. On Moheli they were also seen near goats, but not actually on them. No doubt the "host" is mostly used as a beater, in the same way that Ardeola ibis and Merops nubicus do in Africa, and Onychognathus blythii on Socotra. But on two occasions Mynas were seen to peck at the bodies of the cows on which they were perched; I could find no sore, and perhaps an insect had alighted on the beasts. That Benson does not mention this widespread habit (in the Comoros) suggests that it may be a new habit. It would seem extraordinary, however, if this had developed simultaneously in such widely-separated localities remote from one another. Benson tells me that he did not observe this habit, but does not rule out the possibility that it did occur without him consciously noting the fact.

73. Zosterops senegalensis

Very common throughout Grand Comoro except in the grasslands. It was usually in small bands, and sometimes, especially in forest, was associated with other species in bird-parties, but though travelling with them, the association would be a loose one and the Zosterops were often detached from the rest.

74. Zosterops mouroniensis

(GC) - - -

Not seen by me, as time did not allow me to reach the heathzone on Mt. Karthala, Grand Comoro, the only locality from which it is known.

75. Zosterops maderaspatana - Mo - A Seen by me on both Moheli and Anjouan, where it was particularly common in thickets near the coast.

76. Zosterops mayottensis
Fairly common on the east side of Mayotte and on Pamanzi Islet.

On Mayotte a party was seen bathing in a small pool of water about 20 feet up in a tree in forest.

77. Nectarinia notata

GC Mo - -

Fairly common on both Grand Comoro and Moheli, especially in the mid-stratum and canopy of forests, but was also found in plantations and thickets. Unlike Benson (p. 92) I found it not uncommon near sea level. The flight-call was a sharp "chip chip," which reminded me strongly of N. senegalensis in Africa. A male at Fomboni, Moheli on 19 October was preening near a destroyed nest, and was making a clear "chiew."

Two other nests were found in the mid-stratum of the forest above Fomboni, at about 400 feet a.s.l.: that of 19 October was built near the trunk of a tree about 20 feet above the ground. Unlike other sunbird nests I have seen, it was built in such a fashion that the entrance was at a tangent to the trunk and did not face outwards. The nest was very large for a sunbird, being about eight inches deep and six inches across. The porch was very well-developed, so much so, in fact, that the entrance-hole (about two inches in diameter) faced downwards, and the nest, apart from its materials, reminded me strongly of that of Ploceus sp. It was neatly and strongly made of fine grass and was lined very thickly with vegetable down. There was a fairly long strand of material at the top of the nest from which it was suspended. On 20 October another nest was found in exactly the same sort of place, and also faced tangentially to the tree. Its construction was identical to the other nest, except that it had been built onto an old nest (which also appeared identical, except that the entrance-hole faced in the opposite direction to that of the new nest). This incredible structure is over two feet in total length. Mr. John G. Williams tells me he has heard of nothing comparable in any other sunbird species. Both my nests were complete but empty; I might add that they were attached to the tips of thin drooping twigs.

78. Nectarinia humbloti

GC Mo - -

In general, more common than \underline{N} . notata, and found in the same habitats. It was seen feeding in coconut flowers on several occasions, which \underline{N} . notata was never seen to do, but \underline{N} . humbloti was never seen at banana flowers, at which \underline{N} . notata was seen on several occasions. The present species was also seen in the mangrove swamp at Voidju, and an old nest was found there on 18 October. It hung from a horizontal twig, and was small and compact, with the entrance-hole roughly half-way

up the side (see also Benson:94). The bird was often seen in forest, and was generally found in the mid-stratum and more commonly in the low undergrowth, at times less than a foot above the ground, which is not mentioned by Benson.

The song is tinkly; on 19 October a male and female were both heard scolding "swear-swear."

79. Nectarinia comorensis
Common on Anjouan, and the song sounded very like that of
N. humbloti.

Not uncommon on Mayotte and Pamanzi Islet. It was particularly common in thickets and in plantations, etc. On 25 October near Mamoutzou a female was seen making repeated flights with nesting material. Her unfinished nest was easily found, hanging from the end of a bamboo-shoot, about three feet above the ground in a clump of bamboos. The nest was small and compact, but had a lop-sided appearance, due partly to a series of streamers fringing one side, and partly because the entrance-hole was more towards the opposite side. Unlike the nest of N. humbloti, in which the entrance-hole was half-way up, this of N. coquereli had the entrance-hole near the top (see also Benson:94-96, who also states that N. comorensis has a nest similar to N. humbloti in this respect). It was unlined.

Benson noted no calls. The male's song, heard on several occasions, was recorded by me as a warbling chitter "tiddle tiddle tiddle ti;" another note made by the male was a subdued warble "chewi-chui," and "swee-swee;" a male seen in the top of a palm was making a repeated series of soft "wiht!...wiht!...wiht!...wiht!...wiht!"; the flight-call was a subdued "swit." Near Dzaoudzi on 24 October five females were chasing each other in a tree with "brrrr"-ing wings; they postured at each other with vertical bills, when they would warble softly. When one was separated from the others it made a soft "wit."

81. Passer domesticus

Seen on all four islands; it had not previously been recorded on Anjouan, but I saw six birds in Mutsamudu on 21 October - had they been introduced or had they reached Anjouan unaided from one of the other islands? The former seems more likely for two reasons: Mutsamudu is the capital, and is where one would expect them to be introduced; and it is by no means the nearest point on Anjouan to any other island.

On Mayotte Benson only found it at L'Abattoir village, Pamanzi Islet (p. 98). I found it extremely common at the airfield, and thence all the way to Dzaoudzi. This spread has continued, and the House Sparrow had evidently just reached Mayotte itself, where I saw two pairs and a nest at Mamoutzou on 25 October.

On Grand Comoro, also, it has spread. Benson only found it in Moroni, but I saw it as far north as Tsoudjini. In Moroni itself, it was seen colonizing the new European houses to the north of the town,

even to the extent of building nests in unfinished houses with workmen still in attendance.

On Moheli it was seen in thickets, plantations and cultivation, as well as in Fomboni and other villages. Elsewhere, it was only associated with buildings.

Breeding was noted throughout the archipelago, with the exception of Anjouan. Some birds were building, but many evidently had young. The new modern government buildings in Moroni were especially appreciated by the sparrows; one of these buildings had circular holes about two inches in diameter in a blank wall - those occupied by sparrows were easily identified by the dirty marks under the holes made by the birds' feet and tails. The occupied ones were all near the top of the building about 30 feet above the ground.

Two abnormal birds were seen: a male in Moroni which had a deep chestnut breast and upper chest, and a rather smaller black bib than normal; and an almost completely albino bird at the airfield near Fomboni, Moheli.

82. Foudia madagascariensis

Seen on all four islands in cultivation, plantations and forest-clearings. It was seen occasionally in degraded forest. They were usually in small flocks, but at least 50 were seen together on 17 October near Memboudju, Grand Comoro in the grass of an overgrown plantation. The only males seen in breeding-plumage were on Mayotte from 23 October onwards. A beautiful bird was seen on Moheli on 19

October, whose whole body was a rich deep orange-gold.

83. Foudia eminentissima $\overline{\text{Seen on all four islands, mostly in forest, but also in plantations}}$ occasionally.

On 19 October several nests, most of them old, were found along a perennial stream above Fomboni, Moheli at about 600 feet a.s.l. One had three eggs nearly ready to hatch; they were rather pointed, and were plain pale blue. The nest was about 12 feet above the stream, and was built into a straggly upright shrub, so that it was supported from below. It was made of grass and twigs, and was lined with fine grass-heads, which had been stripped of their seeds. It was neatly made and inconspicuous, and measured about eight inches in height and about eight inches across; the entrance was in a slight tube, about two inches in diameter, and faced downwards. The other nests found were similar, but some had a layer of moss built into the upper part, forming a sort of th.