

VERTEBRATE FAUNA OF TANSA WILDLIFE SANCTUARY, MAHARASHTRA

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INTRODUCTION

At the turn of the century, India's jungles were teeming with wildlife, but a lethal combination of senseless shikar and thoughtless habitat destruction has led to a sharp decline in a number of species.

To check our fast depleting wildlife, the Government of India has established a number of National Parks, Sanctuaries and Game reserves all over the country. Thanks to these, many species which would have joined the "extinct" list have been assured a future. The state of Maharashtra now has 4 National Parks, 21 Wildlife Sanctuaries and one Tiger reserve.

From 1984, the Zoological Survey of India has taken up a project on the survey of the faunal resources of conservation areas within the country. The present contribution is on one such area in Maharashtra. Ali & Ripley (1968), Ellerman & Morrison-Scott (1951), Daniel (1963-75), Day (1875-78), Deoras (1981), Jayaram (1981), Murthy (1985), Prater (1980) and Smith (1943) were consulted.

Just short of 90 km northeast of Bombay, cradled in the foothills of the Sahyadris (Western Ghats) lies the Tansa Wildlife Sanctuary. The sanctuary gets its name from Tansa river which dissects the 304 sq km area into two. This area had its importance as one of the earliest trade routes between the east and central Deccan. The river valley of Vaitarna also brought some of the earliest Aryan settlers. The Greek geographer, Ptolemy, (AD 135-150) had also mentioned about this area (Gazetter of India, 1982). Mahuli fort, situated on a 762 m high hill (highest in the sanctuary) of the same name, too finds a place in history. The fortification was built by the Mughals in the early 14th century. During its long history it was captured by a succession of invaders. Today the fort lies in ruins with only the wild animals as its inhabitants.

A number of tribal villages are present within the sanctuary. The tribals are mainly the Varlis, Malhar, Mahadev Kolis and the Katkaris. The latter are Kath (catechu) makers. They till the land but quite often sell firewood, wild honey and also hunt animals.

THE STUDY AREA

Topography :

Tansa wildlife sanctuary (Fig. 1) is situated in Thane district of Maharashtra state and lies between 19°35' and 19°55' north latitude and 73°20' and 73°35' east longitude. It is about 90 km by road from Bombay. The southeastern boundary of the sanctuary

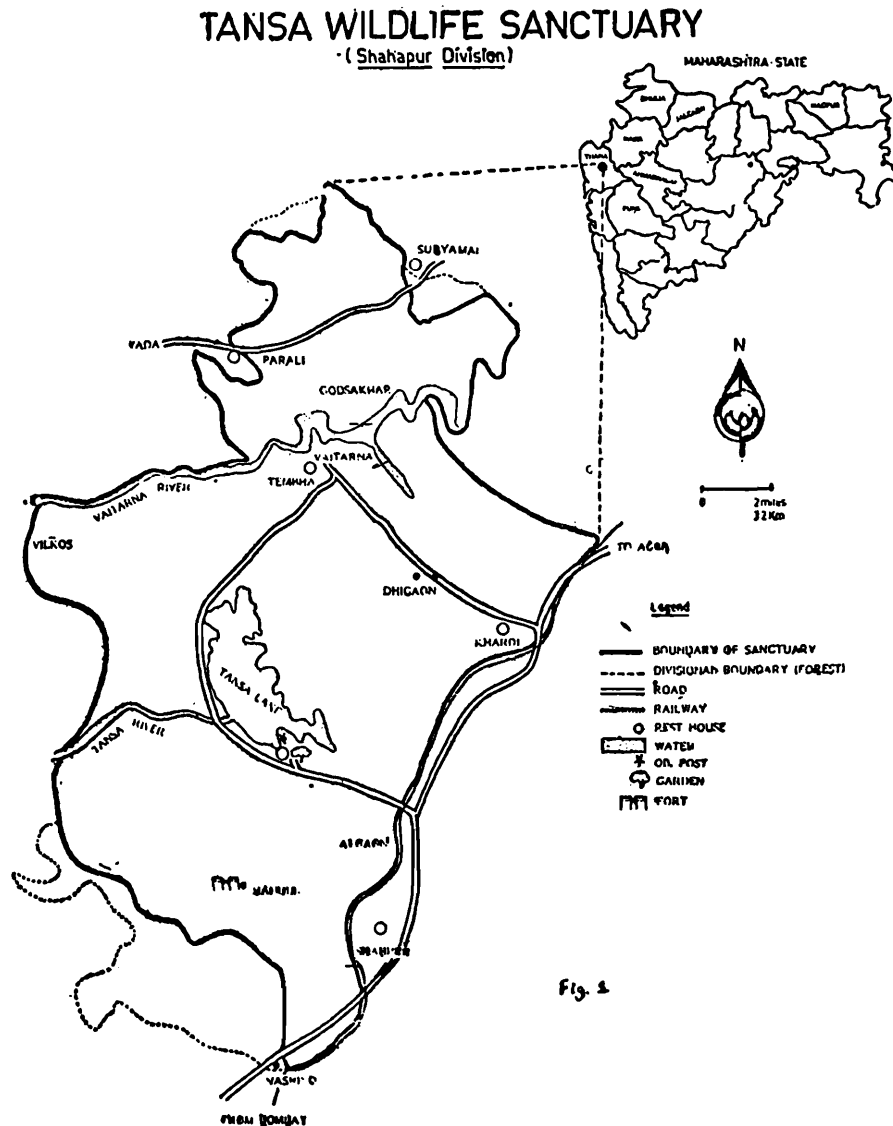


Fig. 1. Moist deciduous forest of Tansa Sanctuary

adjoins the Bombay-Agra National Highway No. 3. The sanctuary can also be reached by a local train from Bombay (2 hrs journey), the alighting point being Atgaon Railway station. Tansa is just 13 km from the station. Although the road to the sanctuary is good, the transport arrangement is inadequate.

Tansa is a comparatively new sanctuary, being established in 1970. At that time its area was 216.75 sq. km, but later on in 1985 it was extended to 304.81 sq. km. This extension brought the Suryamal hill range (known tiger habitat) within the sanctuary cover. Now the sanctuary covers part of Shahpur, Vada and Mokhada talukas of Thane district.

From the steep scarps of the Sahyadris (to the NE of Tansa), the land falls through a succession of plateaus towards the north-east and further westerwards. In the northeast lies the Jowhar-Mokhada plateau at an elevation of 300-400 m, that descends further to form Vada plateau in the west (150-300 on elevation). To the southeast of Vada plateau lies the Shahpur upland at an elevation of about 300 m. This plateau country which forms the sanctuary area is dotted with a number of spurs or offshoots from the Sahyadris mountains. Besides the western spurs of the Sahyadris, a number of isolated hills are present, the prominent being Mahuli, rising at a height of 762m, being situated in the southern part of the sanctuary. A ruined fort can still be seen at the top.

Rivers :

Two major rivers, the Vaitarna and Tansa drain the sanctuary area, the Vaitarna is the largest. It originates from the western slopes of the Sahyadris near Trimbakeshwar in Nasik district, at an altitude of about 670 m. It traverses a distance of about 126 km before meeting the Arabian sea. This river has a mention in the Mahabharata as one of the four sacred streams. The river has a catchment area of 2,572 sq. km. In 1948, a dam was constructed to form a reservoir name Modaksagar, having a water spread area of 9.06 sq. km. Water from this reservoir is drawn off and supplied to Bombay through a 77 km long pipeline. It is also a source of hydel power. The entire Modaksagar area now comes under the sanctuary limits.

Tansa river originates near Khardi village, traverses the sanctuary and finally meets Vaitarna. This river too has been dammed (1886) to form a reservoir having 19.42 sq. km water spread area. Water from this reservoir too is being supplied to Bombay.

Forest :

Tropical moist deciduous type of forest clothes the region (Dikshit, 1986) and comprises mainly of : Teak (*Tectona grandis*), Ain (*Terminalia tomentosa*), Khair (*Acacia catechu*). Haldu (*Adina cordifolia*), Kalam (*Stephegyne parvifolia*), Bibla (*Pterocarpus marsupium*), Palas (*Butea monosperma*), Dhavada (*Anogeissus latifolia*) and a few thickets of Bamboo (*Dendrocalamus strictus*).

The Fauna :

Tansa wildlife sanctuary contains a variety of fauna, representing 144 genera of Vertebrates. These have been listed in Appendix I alongwith their current status. Over 50 species of mammals are known to inhabit this sanctuary. 37 species of birds were sighted during the surveys conducted in 1984 and 1986. Tigers have been reported from Suryamal range only in the northern part of the sanctuary while leopards prefer the hilly areas. The lesser cats such as the leopard cat and palm civet are also found here but being nocturnal, are seen less frequently. The Jackal is commonly seen.

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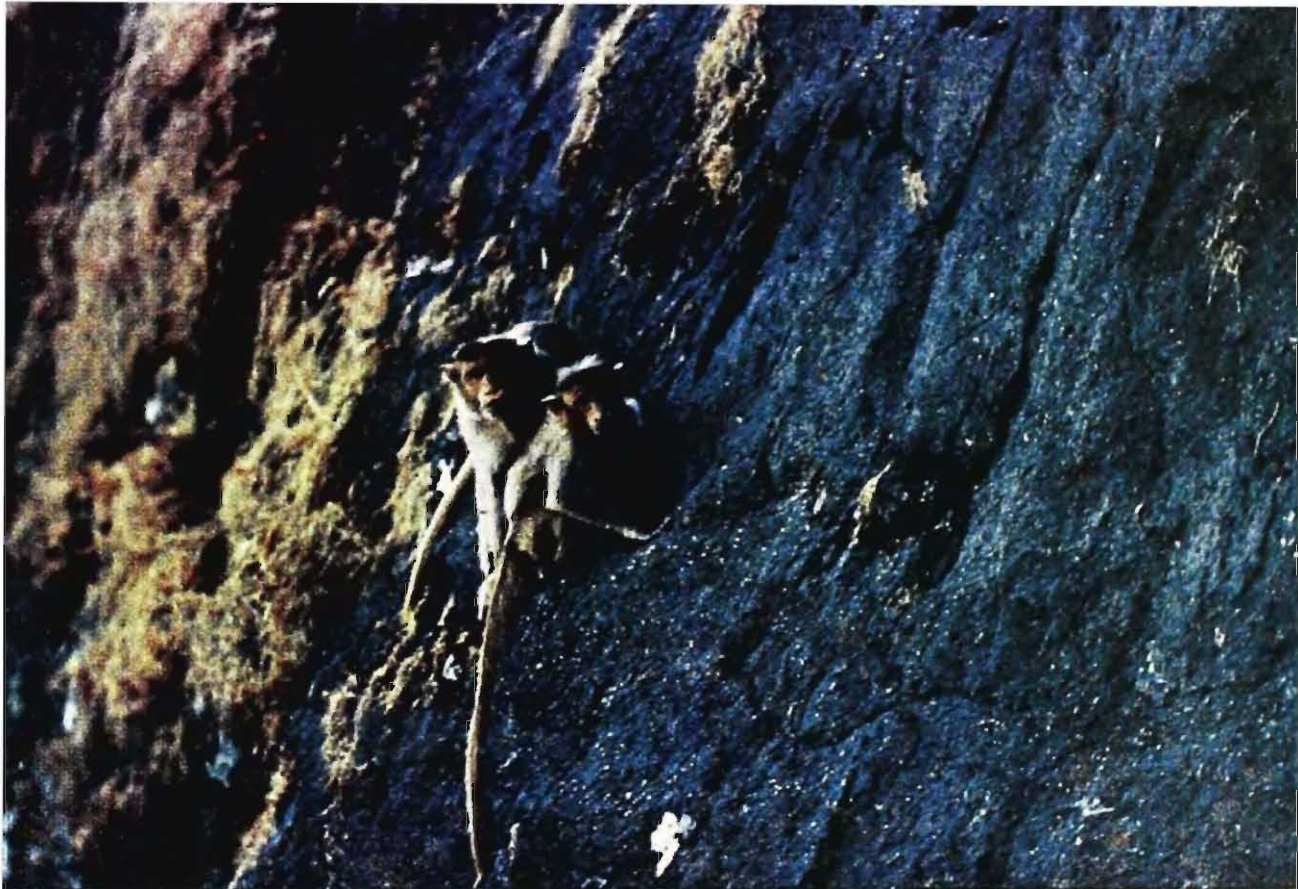
PLATE 1



Modaksagar reservoir.

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PLATE 2



Camera shy Bonnet monkeys in Tansa sanctuary.

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PLATE 3



Four-horned antelope captivity

Of the three species of deer that are found here, the mouse deer (*Tragulus meminna*) is rarely seen. The fourhorned antelope (*Tetracerus quadricornis*) is perhaps the most interesting ungulate. The males have two extra rudimentary horns which give the animal a unique distinction of being the only four horned species in the world.

Tansa has something for the bird watchers too : Darters, egrets, storks, Jacanas, are found near the lakes, while racket-tailed drongoes, golden orioles, tree pies, paradise flycatchers and many other species are seen in the nearby forest. About 37 species of birds have been sighted during the surveys.

Tansa sanctuary is the home of the muggar (*Crocodylus palustris*). It has been sighted in the Vaitarna. A few species of turtles and tortoises are found in and around the lakes, The Indian python, viper, cobra and krait also inhabit Tansa as do monitors and other lizards. The water of Tansa and Vaitarna abound with large-sized fishes like Catla, Channa and freshwater eel.

Although Tansa has an interesting variety of fauna, we think this region should be declared as a sanctuary for the four-horned antelope. This will offer complete protection for the survival of this species which is known to occur at only a few places in the Western ghats.

RECOMMENDATIONS

1. It should be declared a four-horned antelope sanctuary.
2. Attractive posters and display boards can be put up at Atgaon railway station and transport be provided for the public to take due notice of this sanctuary.
3. The zoo is presently too small and hence should be enlarged. Local fauna can be well represented here.
4. The facility of crocodile breeding at Tansa and Vaitarna reservoirs can be explored.

SUMMARY

The vertebrate fauna of Tansa wildlife sanctuary (Maharashtra) was surveyed. 144 vertebrate genera were recorded from the area. Tiger was sighted from Suryamal range. Four-horned antelope is present in large numbers. The rusty spotted cat also makes its abode in this sanctuary. About 37 species of birds have been sighted during the surveys. The waters of Tansa and Vaitarna contain the Indian muggar and large-sized fishes like catla, channa and freshwater eel.

ACKNOWLEDGEMENTS

We are thankful to the Director, Zoological Survey of India, Calcutta for allowing us to survey the area, and to Dr. G. M. Yazdani, Officer-in-Charge, ZSI, Pune for facilities. We are also thankful to Shri K.A. Sheikh, D.CF., Shri Jalgaonkar RFO,

Forest Department, for providing transport and other facilities during night observations. Thanks are also due to Dr. A. S. Mahabal, Scientist S. D. for checking the list of bird species.

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APPENDIX—I

Class : MAMMALIA
Order : INSECTIVORA
Family : SORICIDAE

1. *Suncus murinus* (Linn.) House Shrew

1766. *Sorex murinus* Linnaeus, *Syst. Nat.* 12th ed. 1 : 74, Java.

Status : Common near human habitations.

2. **Suncus stoliczkanus** (Anderson)

1877. *Crocidura (Pachyura) stoliczkana* Anderson. *J. Asiat. Soc. Bengal* 46 : 270, Bombay, India.

Status : Occasional, along river banks.

Order : CHIROPTERA

Suborder : MEGACHIROPTERA

Family : PTEROPIDAE

3. **Pteropus giganteus** (Brunnich) Flying fox

1782. *Vespertilio gigantea* Brunnich, *Dyrenes Historia* 1 : 45, Bengal, India.

Status : Common.

4. **Cynopterus sphinx** Vahl. Short-nosed fruit bat

1797. *Vespertilio sphinx* Vahl. *Skr. Nat. Selsk. Copenhagen*, 4, 1 : 123, Tranquebar, Madras, India.

Status : Common.

Suborder : MICROCHIROPTERA

Family : MEGADERMATIDAE

5. **Megaderma lyra** Geoffroy Indian False Vampire

1810. *Megaderma lyra* E. Geoffroy. *Ann. Mus. H. N. Paris*, 15 : 190 India.

Status : Occasional.

Family : RHINOLOPHIDAE

6. **Rhinolophus rouxi** Temminck Horse shoe Bat

1835. *Rhinolophus rouxi* Temminck, *Mon. Mamm.* 2 : 306 Pondicherry and Calcutta, India.

Status : Brosset (1962) reported this species from the Western Ghats.

7. **Rhinolophus lepidus** Blyth

1844. *Rhinolophus lepidus* Blyth, *J. Asiat. Soc. Bengal*, 13 : 486, Calcutta.

Status : Brosset (1962) reported this species from the Western Ghats.

8. **Hipposideros bicolor** (Temminck) Leaf-nosed Bat

1834. *Rhinolophus bicolor* Temminck, *Tijdschr. Natuur. Gesch.* 1. i, 19, Pl. 1, Fig. 3. Anjer Coast, Java.

Status : Brosset (1962) reported this species from the Western Ghats

Family : VESPERTILIONIDAE

9. **Myotis peshwa** (Thomas)

1915. *Leuconoe peshwa* Thomas *Jour. Bombay nat. Hist. Soc.* 23 : 611, Poona, Bombay, India.

Status : Distribution of this rare species has been reported from Thana district by Brosset (1962).

10. **Pipistrellus ceylonicus** (Kelaart) Kelaart's Pipistrelle

1852. *Scotophilus ceylonicus* Kelaart, *Prodr. Faun. Zeylan*, 22, Trincomalee, Ceylon.

Status : Common.

Order : PRIMATE

Family : CERCOPITHECIDAE

11. **Macaca radiata** (Geoffroy) Bonnet macaque

1812. *Cercocebus radiatus* E. Geoffroy, *Ann. Mus. H. N. Paris*, 19 : 98.

Status : Common. Sighted a small troop near Tansa lake.

12. **Macaca mulatta** (Zimmermann) Rhesus macaque

1780. *Cercopithecus mulatta* Zimmermann, *Geogr. Gesch. Mensch* 2 : 195, India.

Status : Introduced. Forest authorities have confirmed the release of some domesticated Rhesus monkeys in the sanctuary.

13. **Presbytis entellus** (Dufresne) Langur

1797. *Simia entellis* Dufresne, *Bull. Soc. Philmon, Paris*, 1. 7 : 49 Bengal, India.

Status : Common.

Order : PHOLIDOTA

Family : MANIDAE

14. **Manis crassicaudata** Gray Indian Pangolin

1827. *Manis crassicaudata* Gray in *Griffith's Cuvier Anim. Kingd.* 5 : 282, India.

Status : Occasional.

Order : CARNIVORA

Family : CANIDAE

15. **Canis aureus** Linn. Jackal

1758. *Canis aureus* Linnaeus, *Syst. Nat.* 10th ed. 1 : 40, Province of Lar, Persia.

Status : Occasional.

16. **Vulpes bengalensis** (Shaw) Indian Fox

1800. *Canis bengalensis* Shaw, *Gen. Zool.* 1, 2 : 330, Bengal.

Status : Common.

Family : MUSTELIDAE

17. **Lutra (Lutagale) perspicillata** I. Geoffroy Smooth-coated Indian Otter

1826. *Lutra perspicillata* I. Geoffroy, *Dict. Class H. N.* 9 : 519, Sumatra.

Status : Occasional. A small group (2—3) of otters was sighted near Tansa lake by the forest officials.

Family : VIVERRIDAE

18. *Viverricula indica* Desmarest Small Indian Civet1817. *Viverra indica* Desmarest, *Nouv. Dict. N. H.* 7 : 170.

Status : Common. Sighted in Tansa forest as well as Khardi village.

19. *Paradoxurus hermaphroditus* (Pallas) Common Palm Civit1777. *Viverra hermaphrodita* Pallas in *Schreber. Saiget. 36* : 426, India.

Status : Common.

Family : HERPESTIDAE

20. *Herpestes edwardsi* (Geoffroy) Common Mongoose1837. *Ichneumon edwardsi* E. Geoffroy, *De scr. Egypte.* 2 : 139. "East Indies" (Madras, Pocock, 1933).

Status : Common.

21. *Herpestes smithii* Gray Ruddy Mongoose1837. *Herpestes smithii* Gray, *Charlesu. Mag. N. H.* 1 : 578, said to be from near Bombay, India.

Status : Rare. Reported from areas near Bombay by Ellerman & Morrison-Scott, 1951.

Family : HYAENIDAE

22. *Hyaena hyaena* (Linn.) Striped Hyaena1758. *Canis hyaena* Linnaeus, *Gyst. Nat.* 10th ed. 1 : 40 Benna Mountains, Laristan, Southern Persia.

Status : Common.

Family : FELIDAE

23. *Felis libyca ornata* Gray Indian Desert Cat1830. *Felis ornata* Gray, *Illustr. Ind. Zool. I.*, pl. 2, India,

Status : Rare. One specimen was sighted in the thick forested areas in core zone by forest officials in 1983.

24. *Felis chaus* Guldenstaedt Jungle Cat1776. *Felis chaus* Guldenstaedt, *Nov. Com. Acad. Petrop.* 20 : 483, Terek River, north of Caucasus.

Status : Common. One specimen was sighted in the forest near Suryamal.

25. *Felis bengalensis* Kerr Leopard cat1792. *Felis bengalensis* Kerr *Anim, Kingd.* 151, Southern Bengal,

Status : Occasional.

26. **Felis rubiginosa** Geoffroy · Rusty-Spotted Cat1851. *Felis rubiginosa* I. Geoffroy Belanger. *Voy. Ind. Orient. Zool.* 140. Pondicherry, Southern India.

Status : Rare. One specimen was sighted in the forested areas, west of Khardi village by the forest officials.

27. **Panthera pardus** (Linn.) Leopard or Panther1758. *Felis pardus* Linnaeus, *Syst. Nat.* 10th ed, 1 : 41, Egypt.

Status : Common

28. **Panthera tigris** (Linn.) Tiger1758. *Felis tigris* Linnaeus, *Syst. Nat.* 10th ed. 1 : 41, Bengal.

Status : A family of two was occasionally sighted near Suryamal range by local tribals and forest authorities in 1986.

Order : ARTIODACTYLA

Family : SUIDAE

29. **Sus scrofa** Linn. Indian Wild Boar1758. *Sus scrofa* Linnaeus, *Syst. Nat.* 10th ed. 1 : 49, Germany.

Status : Common.

Family : TRAGULIDAE

30. **Tragulus (Moschiola) meminna** (Erxleben) Mouse deer1777. *Moschus meminna* Erxleben *Syst. Regn. Anim. Mamm.* 322 : Ceylon.

Status : Occasional.

Family : CERVIDAE

31. **Muntiacus muntjack** (Zimmermann). Barking deer1780. *Cervus muntjack* Zimmermann, *Geogr. Gesch* 2 : 131, Java.

Status : Common.

32. **Axis axis** (Erxleben) Chital or Spotted deer1777. *Cervus axis* Erxleben, *Syst. Regn. Anim.* : 312, Bank of Ganges, India.

Status : Common. A small herd was sighted in the forested areas, west of Khardi village.

33. **Cervus (Rusa) unicolor** Kerr Sambar1792. *Cervus axis unicolor* Kerr, *Anim. Klingd.* 300, Ceylon.

Status : Occasional.

Family : BOVIDAE

34. **Tetracerus quadricornis** (Blainville) Chowsingha or Four horned antelope.

1816. *Cercophorus (Cervicarya) quadricornis* Blainville, *Bull. Soc. Philom. Paris*, 75 and 78. Plains of Peninsular India.

Status : Occasional. A pair shot near Shahapur by poachers in 1986, was examined.

35. **Boselaphus tragocamelus** (Pallas) Nilgai or Blue Bull

1766. *Antilope tragocamelus* Pallas, *Misc. Zool.* 5. Plains of Peninsular India.

Status : Reported to inhabit the bordering forested areas of the sanctuary. Forest authorities and tribals have confirmed the occurrence of a small group.

Order : LAGOMORPHA

Family : LEPORIDAE

36. **Lepus nigricollis** Cuvier Black-naped Hare

1823. *Lepus nigricollis* F. Cuvier, *Dict. Sci. Nat.* 26 : 307, Madras.

Status : Common.

Order : RODENTIA

Family : SCIURIDAE

37. **Funambulus pennanti** Wroughton Five striped Palm Squirrel

1905. *Fuuambulus pennanti* Wroughton, *Jour. Bombay nat. Hist. Soc.* 16 : 411, Mandvi taluka, Surat dist. Gujarat, India.

Status : Common.

38. **Funambulus t. tristriatus** (Waterhouse) Jungle striped Squirrel

1837. *Sciurus tristriatus* Waterhouse, *Charlesworth's Mag. nat. Hist.* 1 : 496.

Status : Common. (One specimen, Reg. No. M/461 was collected from bordering locality-Jawahar).

Family : HYSTRICIDAE

39. **Hystrix indica** Kerr Indian Porcupine

1792. *Hystrix cristata* var. *indica* Kerr, *Anim. Kingd.* 213, India.

Status : Common.

Family : MURIDAE

40. **Tatera indica indica** (Hardwicke) Indian Gerbil or Antelope rat

1807. *Dipus indicus* Hardwicke, *Trans. Linn. Soc. London*, 8 : 279, Northern India.

Status : Commonly seen in paddy fields in the buffer zone.

41. **Vandeleuria oleracea** (Bennett) Longtailed Tree mouse1832. *Mus oleracea* Bennett, *FZS*, 121, Deccan, India.

Status : Occasional.

42. **Millardia m. meltada** (Gray) Metad or softfurred field rat1837. *Golunda meltada* Gray, *Mag. Nat. Hist.* 1 : 586.

Status : Occasional.

43. **Rattus blanfordi** (Thomas) White tailed wood rat1881. *Mus blanfordi* Thomas, *Ann. Mag. N. H.* 7 : 24, Madras, India.

Status : Occasional.

44. **Rattus rattus rufescens** (Gray) House rat1837. *Mus rufescens* Gray, *Ann. Mag. N. H.* 1 : 585, Dharwar, India.

Status : Common.

45. **Mus musculus castaneus** (Waterhouse) House mouse1843. *Mus castaneus* Waterhouse, *Ann. Mag. N. H.* 12 : 134, Philippine Islands.

Status : Common.

46. **Mus musculus homourus** Hodgson1845. *Mus homourus* Hodgson, *Ann. Mag. N. H.* 15, 268, Nepal.

Status : Common.

47. **Mus booduga** (Gray) Indian Pygmy Field mouse1837. *Leggada booduga* Gray, *Charlesworth's mag. N. H.* 1 : 586, Southern Mahratta, India.

Status : Common.

48. **Mus dunnii** (Wroughton)1912. *Leggada dunnii* Wroughton *Jour. Bombay nat. Hist. Soc.* 21 : 339, Ambala, Punjab.

Status : Occasional.

49. **Mus (Pyromys) platythrix platythrix** Bennett Indian Spiny mouse1832. *Mus platythrix* Bennett, *PZI*, 121, Deccan, India.

Status : Occasional.

50. **Mus (Pyromys) saxicola** Elliot1839. *Mus saxicola* Elliot, *Madras J. Litt. Sci.* 10 : 215, Madras.

Status : Occasional.

51. **Golunda ellioti ellioti** Gray Indian Bush rat1837. *Golunda ellioti* Gray, *Charlesworthe's ma. nat. Hist.* 1 : 586, Dharwar, India.

Status : Common. One specimen (Reg. No. M/422) was collected from paddy field near the bordering area of Jawhar.

52. **Golunda ellioti gujerati** Thomas1923. *Golunda ellioti gujerati* Thomas, *Jour. Bombay nat. Hist. Soc.* 29 : 2, Palanpur, Gujarat.

Status : Occasional. Two specimens (Reg. No. M/344 & M/345) were collected from bushes near the bordering areas.

53. **Bandicota bengalensis kok** Gray Lesser Bandicoot or Indian mole rat1837. *Mus kok* Gray, *Charlesworth's mag. nat. Hist.* 1 : 585, Dharwar, India.

Status : Common.

54. **Bandicota indica indica** (Bechstein) large Bandicoot Rat1800. *Mus indicus* Bechstein, *Veber Viert Thiere* 2 : 497, Pondicherry, India.

Status : Common.

Class : AVES

Order : PODICIPEDIFORMES

Family : PODICEPEDIDAE

1. **Podiceps ruficollis capensis** Salvadori Dabchick1884. *Podiceps capensis* Salvadori, *Ann. Mus. Civ. Genova*, (2), I : 252, Shoa, Africa.

Status : Common.

Order : PELECANIFORMES

Family : PHALACROCORACIDAE

2. **Phalacrocorax niger** (Viellot) Little Cormorant1817. *Hydrocorax niger* Viellot, *Nouv. Dict. Hist. Nat.* 8 : 88, East Indies, Bengal.

Status : Resident.

3. **Anhinga rufa melanogaster** Pennant Darter or Snake Bird1769. *Anhinga melanogaster* Pennant, *Indian Zool.* 13 : 12, Ceylon.

Status : Common.

Order : CICONIIFORMES

Family : ARDEIDAE

4. **Ardeola g. grayii** (Sykes) Indian Pond Heron1832. *Ardea grayii* Sykes, *Proc. Zool. Soc. London* : 158.

Status : Common in ponds.

5. **Bubulcus ibis coromandus** (Boddaert) Cattle Egret

1783. *Cancroma coromanda* Boddaert *Table. Pl. enlum* : 54.

Status : Common.

Family : CICONIIDAE

6. **Egretta g. garzetta** (Linn.) Little Egret

1766. *Ardea garzetta* Linnaeus, *Syst. Nat. ed. 12* : 1 : 237.

Status : Common.

7. **Anastomus oscitans** (Boddaert) Openbill Stork

1783. *Ardea oscitans* Boddaert, *Table Pl. enlum.* : 55, Pondicherry.

Status : Common.

Family : THRESKIORNITHIDAE

8. **Pseudibis papillosa papillosa** (Temminck) Indian Black Ibis

1824. *Ibis papillosa* Temminck *Pl. Col. Livr.* 51 pl. 304, India.

Status : Common.

Order : ANSERIFORMES

Family : ANATIDAE

9. **Tadorna ferruginea** (Pallas) Brahminy Duck

1764. *Anas ferruginea* Pallas, *Vroeg, Cat. d, Ois, Adumbr* : 5, Tartary.

Status : Winter migratory.

10. **Anas c. crecca** Linn Common Teal

1758. *Anas crecca* Linnaeus, *Syst. Nat. ed. 10, 1* : 126, Sweden.

Status : Common.

Order : FALCONIFORMES

Family : ACCIPITRIDAE

11. **Accipter badius dussumieri** (Temminck) Indian Shikra

1824. *Falco dussumieri* Temminck, *Pl. Col. Live.* : 52, Bengal India.

Status : Common.

Order : GALLIFORMES

Family : PHASIANIDAE

12. **Pavo cristatus** Linnaeus Indian Peafowl

1758. *Pavo cristatus* Linnaeus, *Syst. Nat. ed. 10, 1* : 156, India.

Status : Common.

Order : GRUIFORMES

Family : RALLIDAE

13. **Amaurornis phoenicurus chinensis** (Boddaert) White Breasted water hen

1783. *Fulica chinensis* Boddaert, *Table Pl. enlum.* : 54, China.

Status : Common.

14. **Porphyrio porphyrio poliocephalus** (Latham) Indian Purple Moorhen

1801. *Gallinula poliocephala* Latham, *Index Orn. Suppl.* 68, India.

Status : Common.

15. **Fulica a. atra** Linn, Coot

1758. *Fulica atra* Linnaeus *Syst. Nat. ed. 10, 1* : 152, Europe.

Status : Common.

Order : CHARADRIFORMES

Family : JACANIDAE

16. **Hydrophasianus chirurgus** (Scopoli) Pheasant-tailed Jacana

1786. *Tringa chirurgus* Scopoli, *Del. Flor. et Faun. Insubr., Fasc. 2* : 92.

Status : Common.

17. **Metopidius indicus** (Latham) Bronzewinged Jacana

1790. *Parra indica* Latham, *Index Orn. 2* : 765, India.

Status : Common.

Order : PSITTACIFORMES

Family : PSITTACIDAE

18. **Psittacula krameri manillensis** (Bech.) Roseringed Parakeet

1800. *Psittacula manillensis* Bechstein, *Stubenvogel*, 2nd Gotha ed. : 612, Phillippines.

Status : Common.

Order : CUCULIFORMES

Family : CUCUKIDAE

19. **Eudynamis s scolopacea** (Linn.) Koel

1758. *Cuculus scolopaceus* Linnaeus, *Syst. Nat. ed. 10* : 1 : 111, Malabar.

Status : Common.

20. **Centropus s. sinensis** (Stephens) Crow-pheasant

1815. *Polophilus sinensis* Stephens in Shaw's *Genl. Zool.* 9 (1) : 51, China.

Status : Common.

Order : STRIGIFORMES

Family : STRIYIDAE

21. **Tyto alba stertens** Hartert Indian Barn Owl

1929. *Tyto alba stertens* Hartert, *Nov. Zool. Soc.* 35 : 98, Cachar.

Status : Common.

22. **Bubo bubo bengalensis** (Franklin) Great Horned Owl

1831. *Otus bengalensis* Franklin, *Proc. Zool. Soc. London* : 115, Ganges.

Status : Common.

Order : CORACIFORMES

Family : ALCECEDIDAE

23. **Ceryle rudis leucomelanura** Reichbach Pied Kingfisher

1851. *Ceryle leucomelanura* Reichenbach, *Handb. Spec. Orn.* 21, Ceylon.

Status : Common.

24. **Alcedo atthis bengalensis** Gmelin Small Blue Kingfisher

1788. *Alcedo bengalensis* Gmelin, *Syst. Nat.* 1 (1) : 450, Bengal.

Status : Common.

25. **Haloyon smyrensis fusca** (Boddaert) White breasted Kingfisher

1783. *Alcedo fusca* Boddaert *Table Pl. enlum* : 54, Malabar Coast.

Status : Common.

Family : MEROPIDAE

26. **Merops o. orientalis** Latham Common Green Bee-eater

1790. *Merops orientalis* Latham, *Index Orn. Suppl.* xxxiii, India.

Status : Common.

Order : PASSERIFORMES

Family : ORIOLIDAE

27. **Oriolus oriolus kundoo** Sykes Golden Oriole

1832. *Oriolus kundoo* Sykes, *Proc. Zool. Soc. London*, 187, Dukhun.

Status : Common,

Family : DICRURIDAE

28. **Dicrurus adsimilis albirictus** (Hodgson) Black Drongo

1836. *Bhuchanga albirictus* Hodgson, *Ind. Rev.* 1 (8) : 326, Nepal,

Status ; Common.

29. **Dicrurus paradiseus grandis** (Gould) Racket-tailed Drongo1836. *Edolins grandis* Gould, *Proc. Zool. Soc. London*, 5, Nepal.

Status : Common.

Family : STURNIDAE

30. **Acridotheres t. tristis** (Linn) Indian Myna1766. *Paradisea tristis* Linnaeus, *Syst. Nat. ed. 12*, 1 ; 167, Calcutta.

Status : Common.

Family : PYCNONOTIDAE

31. **Pycnonotus c. cafer** (Linn.) Redvented Bulbul1766. *Turdus cafer* Linnaeus, *Syst. Nat. ed. 12*, 1 : 295, Pondicherry.

Status : Common.

32. **Pycnonotus jocosus fuscicaudatus** (Gould) Redwhiskered Bulbul1866. *Otocompsa fuscicaudata* Gould, *Proc. Zool. Soc. London*, 3 : 664, Madras.

Status : Common.

Family : MUSCICAPIDAE

33. **Pellorneum r. ruficeps** Swainson Spotted Babbler1832. *Pellorneum ruficeps* Swainson *Fauna Boreali-Americana* : 487, India.

Status : Common.

34. **Terpsiphone p. paradisi** (Sinn.) Paradise flycatcher1758. *Corvus paradisi* Linnaeus, *Syst. Nat. ed. 10*, 1 : 107, India.

Status : Common.

Family : CORVIDAE

35. **Dendrocitta vagabunda pallida** (Blyth) Tree Pie1846. *Cr. (ypsirina) pallida* Blyth *Jour. Asiat. Soc. Bengal*, 15 : 30, Western Himalaya.

Status : Common.

Family : MOTACILLIDAE

36. **Motacilla c. caspica** (Gmelin) Wagtail

Status : Winter migratory.

Family : PLOCEIDAE

37. **Ploceus phillippinus phillippinus** (Linn.) Indian Baya1766. *Loxia phillippina* Linnaeus, *Syst. Nat. ed. 12*, 1 : 305, Ceylon.

Status : Common.

Class : REPTILIA
 Order : LORICATA
 Family : CROCODILIDAE

1. **Crocodylus palustris** Lesson Marsh crocodile

1834. *Crocodylus palustris* Lesson, *Belang. Voy. Ind. Or. Zool.* 305, Ganges.

Status : Occasionally seen in Vaitarna river.

Order : TESTUDINES
 Family : EMYDIDAE

2. **Geomyda trijuga** (Schweigger) Pond Tortoise

1814. *Emys trijuga* Schweigger, *Prodr. Monog. Chel.* : 41, Java.

Status : Occasionally trapped in fishermen's net

Order : SQUAMATA
 Suborder : SAURIA
 Family : GEKKONIDAE

3. **Hemidactylus brooki** Gray House Gecko

1845. *Hemidactylus brooki* Gray, *Cat. Liz. Brit. Mus.* : 153, Borneo.

Status : Common.

4. **Hemidactylus maculatus** Dum & Bibr. Rock Gecko

1836. *Hemidactylus maculatus* (in part) Dum & Bibr. *Exp. Gen.* iii : 358, India (Bombay).

Status : Occasional.

Family : AGAMIDAE

5. **Calotes versicolor** (Daudin) Common Calotes

1802. *Agama versicolor* Daudin, *Hist. Nat. Rapt. iii* : 395, India.

Status : Occasionally seen.

Family : SCINCIDAE

6. **Mabuya macularia** Blyth Skink

1853. *Euprepes macularius* Blyth *J. Asiat. Soc. Beng.* xxiii : 652, Bengal.

Status : Common.

Family : VARANIDAE

7. **Varanus bengalensis** Linnaeus Common Monitor

1758. *Lacerta bengalensis* Linnaeus, *Syst. Nat.* ed. x : 201, India.

Status : Occasionally seen,

Suborder : SERPENTES

Family : TYPHLOPIDAE

8. **Typhlops braminus** Daudin Common Worm snake

1803. *Eryx braminus* Daudin, *Hist. Nat. Rept.* vii : 279.

Status : Occasional,

9. **Python molurus** (Linnaeus) Indian Python

1758. *Coluber molurus* Linnaeus, *Syst. Nat.* ed. 10th : 225, India.

Status : Rarely seen.

10. **Eryx johnii** (Russell) Red or Blunt-tailed sand boa

1801. *Boa johnii* Russell *Ind. Serp.* ii : 18 & 20 pls. xvi & xvii, Tranquebar.

Status : Occasionally seen.

11. **Eryx conicus** (Schn.) Common sand boa

1796. In Russell, *Ind. Serp.* i : 5, Madras.

Status : Common.

Family : COLUBRIDAE

12. **Elaphe helena** Daudin Trinket snake

1796. In Russell, *Ind. Serp.* i : 37, pl. 32, Vizagapatam.

Status : Occasionally met with.

13. **Ptyas mucosus** (Linn.) Dhaman or rat snake

1758. *Coluber mucosus* Linnaeus, *Mus. Ad. Frid.* I : 37 pl. 23, India.

Status : Common.

14. **Argyrogena fasciolatus** (Shaw) Banded Racer

1796. In Russell, *Ind. Serp.* i : 26 pl. xxi, India.

Status : Occasionally seen.

15. **Lycodon aulicus** (Linn.) Wolf snake

1754. *Coluber aulicus* Linnaeus, *Mus. Adolph. Frider.* I : 29 pl. xii.

Status : Occasionally seen.

16. **Oligodon taeniolatus** (Jerdon) Kukri snake

1853. *Coronella taeniolata* Jerdon, *J. Asiatic. Soc. Bengal* xxii : 528.

Status : Occasional.

17. **Dendrelaphis tristis** (Daudin) Indian Bronze-back Tree snake

1803. *Coluber tristis* Daudin, *Hist. Nat, Rept.* vi : 430.

Status : Occasional.

18. **Natrix piscator** (Schn.) Checkered Keelhack

1799. *Hydrus piscator* Schneider, *Hist. Amph.* i : 247, East Indies.

Status : Common.

19. **Ahaetulla nasuta** (Lacépède) Vine snake

1789. *Coluber nasutus* Lacépède, *Hist. Nat. Serp.* i : 100 & ii, Ceylon.

Status : Occasionally seen.

Family : ELAPIDAE

20. **Bungarus caeruleus** (Schn.) Common Indian Krait

1801. *Pseudoboa caerulea* Schneider, *Hist. Amphib.* ii : 284, Vizag.

Status : Occasionally seen.

21. **Naja naja** (Linn.) Common Cobra

1758. *Coluber naja* Linnaeus, *Syst. Nat.* ed. 10th : 221, India.

Status : Occasionally seen.

Family : VIPERIDAE

22. **Vipera russelli** Shaw, Russell's Viper

1797. *Coluber russelli* Shaw, *Nat. Misc.* viii, pl. 291.

Status : Occasionally seen.

23. **Echis carinatus** (Schn.) Saw-scaled Viper

1801. *Pseudoboa carinatus* Schneider, *Hist. Amphib.* ii : 285.

Status : Common.

24. **Trimeresurus gramineus** (Shaw) Bamboo Pit Viper

1802. *Coluber gramineus* Shaw, *Gen. Zool.* iii : 420, Vizagapatam.

Status : Rare in the region.

Class : AMPHIBIA

Order : SALIENTIA

Family : BUFONIDAE

1. **Bufo melanostictus** Schn. Common Indian Toad

1799. *Bufo melanostictus* Schneider, *Hist. Amph. Jena*, I : 216.

Status : Common.

Family : MICROHYLIDAE

2. **Microhyla ornata** (Dum & Bibr.) Ornate Microhylid1841. *Emgystoma ornatum* Dumeril & Bibron *Erpet. Gen. Paris*, 8 : 745.

Status : Occasionally seen.

Family : RANIDAE

3. **Rana cyanophlyctis** Schn. Skipper frog1799. *Rana cyanophlyctis* Schneider, *Hist. Amph. Jena*, 1 : 137.

Status ; Common.

4. **Rana tigrina** Daudin Bull frog1803. *Rana tigrina* Daudin *Hist. Rain. Gren. Crap.* : 64, pl. 20.

Status : Common.

5. **Rana limnocharis** Weigmann Indian Cricket frog1835. *Rana limnocharia* Weigmann, *N. Acta Ac. Leop. Carol.* 17 (1) : 255.

Status : Occasional.

The following species of fishes are collected from Tansa and Vaitarna rivers.

Order : OSTEOGLOSSIFORMES

Family : NOTOPTRIDAE

1. **Notopterus notopterus** (Pallas)1769. *Gymnotus notopterus* Pallas, *Spicil. Zool. Petersburg* 7 p. 40, pl. 6, fig. 2. Type-loc Indian Ocean.

Order : CYPRINIFORMES

Family : CYPRINIDAE

2. **Barilius bendelisis** (Ham.)1822. *Cyprinus bendelisis* Hamilton, *Fishes of Ganges*. Edinburgh, pp. 270, 385. Type-loc : Rivers of Mysore.3. **Danio aequipinnatus** (McClelland)1839. *Perilampus aequipinnatus* Mc Clelland, *Asiatic Res. Calcutta*, 19, p.3, pl. 60. Fig 1. Type-loc : Assam.4. **Rasbora daniconius** (Hamilton)1822. *Cyprinus daniconius* Hamilton *Fishes of Ganges*. Edinburgh, pp 327, 329, pl. 15, fig. Type-loc : Rivers of southern Bengal.5. **Labeo rohita** (Hamilton)1822. *Cyprinus rohita* Hamilton, *Fishes of Ganges*, Edinburgh, pp. 301, 388, pl. 36, fig. 85. Type-Loc : Freshwater rivers of Gangetic Provinces.

6. **Labeo boggut** (Sykes)

1841. *Chondrostoma boggut* Sykes, *Trans. Zool. Soc. London*, 2, p. 359, Type-loc : Poona.

7. **Catla catla** (Ham.)

1822. *Cyprinus catla* Hamilton. *Fishes of Ganges* Edinburgh, pp 287, 318, 387, pl. 13, fig 81. Type-loc : Rivers and tanks of Bengal.

8. **Cirrhinus mrigala** (Ham.)

1822. *Cyprinus mrigala* Hamilton. *Fishes of Ganges*, Edinburgh, pp 279, 386, pl. 6. Type-loc : Ponds and freshwater rivers of Gangetic Provinces.

9. **Puntius amphibius** (Val.)

1842. *Capoeta amphibia* Valenciennes. *Hist. Nat. Poissons*, Paris, 16, pp 282, pl. 478, Type-loc : Bombay.

10. **Puntius sarana** (Ham.)

1822. *Cyprinus sarana* Hamilton, *Fishes of Ganges*, Edinburgh, pp. 307, 388, Type-Loc : Ponds and rivers of India.

11. **Puntius ticto** (Ham.)

1822. *Cyprinus ticto* Hamilton, *Fishes of Ganges*, Edinburgh pp. 314, 389, pl. 8, fig. 87, Type-Loc : South east part of Bengal.

12. **Garra gotyla** (Gray)

- 1832-33. *Cyprinus gotyla* Gray Ill. *In lian Zoology* 2 pl 88, Figs 3, 3A, Type-Loc : Northern India.

13. **Garra mullya** (Sykes)

1841. *Chondrostoma mullya* Spkes, *Trans. Zool. Soc. London* 2, p. 359, pl. 62, fig. 3. Type-Loc : Poona.

Family : COBITIDAE

14. **Lepidocephalus (Lepidocephalichthys) guntea** (Ham)

1822. *Cobitis guntea* Hamilton, *Fishes of Ganges*, Edinburgh, pp. 353, 394, Type-Loc : Ponds and freshwater rivers of Bengal.

15. **Noemacheilus denisonii** Day

1867. *Noemacheilus denisonii* Day, *Proc. Zool. Soc. Lond.* p. 287, Type-Loc : not given.

16. **Oreonectes evezardi** (Day)

1878. *Nemachilus evezardi* Day, *Fish. India*, p. 613, fig 11, Type-Loc : Poona.

Order : SILURIFORMES

Family : BAGRIDAE

17. **Mystus seenghala** (Sykes)

1839. *Platystomus seenghala* Sykes, *Trans. Zool. Soc. Lond.* 2, p. 371, Type-loc : Mola Mota river at Poona.

18. *Aorichthys aor* (Ham.)

1822. *Pimelodus aor* Hamilton, *Fishes of Ganges*, pp 205, 379, pl. 20, fig. 68. Type-Loc : Rivers of Bengal and upper parts of Gangetic estuaries.

Family : HETEROPNEUSTIDAE

19. *Heteropneustes fossilis* (Bloch)

1794. *Silurus fossilis* Bloch, *Auslandische Fische*, Berlin, 6, p. 370, fig. 2. Type-Loc : Tranquebar.

Order : ATHERINIFORMES

Family : POECILIDAE

20. *Gambusia affinis* (Baird and Girard)

1853. *Heterandia patruelis* Baird and Girard, *Proc. Acad. nat. Sci. Philad*, 6, p. 360, Type-Loc : Rio Sabinal, Texas, U. S. A.

Family : CYPRINODONTIDAE

21. *Aplocheilus lineatum* (Val.)

1846. *Panchax lineatum* Valenciennes, *Hist. Nat. Poissons*, Paris, 18, p. 381, Type-Loc : Bombay.

Order : CHANNIFORMES

Family : CHANNIDAE

22. *Channa marulius* (Ham.)

1822. *Ophiocephalus marulius* Hamilton, *Fishes of Ganges*, pp. 65, 367, pl. 17, fig. 19. Type-Loc : Ponds and freshwater rivers of India.

23. *Channa punctatus* (Bloch)

1793. *Ophiocephalus punctatus* Bloch, *Auslandische Fische*, Berlin, 6, p. 139, pl. 358, Type-Loc : Malabar.

Order : PERCIFORMES

Family : CHANNIDAE

24. *Ambassis ranga* (Ham.)

1822. *Chanda ranga* Hamilton, *Fishes of Ganges*, Edinburgh, p. 113, 371, pl. 16, fig. 38. Type-Loc : Freshwater rivers of Gangetic Provinces.

Family : GOBIIDAE

25. *Glossogobius giuris* (Ham.)

1822. *Gobius giuris* Hamilton, *Fishes of Ganges*, Edinburgh, pp. 51, 366, pl. 33, fig. 15. Type-Loc : Ponds and freshwater rivers of Gangetic Provinces.

Order : MASTACEMBELIFORMES

Family : MASTACEMBELIDAE

26. *Mastacembelus guentheri* Day, *Proc. Zool. Soc. London*, p. 37.