

AN UPDATED CHECKLIST OF ICHTHYOFAUNA OF EASTERN GHATS

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Abstract

Updated information on ichthyofaunal species composition of the Eastern Ghats is provided. They belong to 127 species (including 2 subspecies) under 26 families and nine orders. Absence of typical Malayan elements and few endemics characterise the fauna of the Eastern Ghats in contrast to the presence of several Malayan elements and more than 50% endemics among the Western Ghats Ichthyofauna.

Keywords

Ichthyofauna, Eastern Ghats, Western Ghats

Introduction

The Eastern Ghats, unlike the Western Ghats, are not a continuous range of mountains but a series of broken and weathered relicts of the Peninsular Plateau represented as a series of isolated hills. The Eastern Ghats form the eastern border of the Peninsular Plateau, extending from the extreme northeast to the south of the Chota-Nagpur Plateau and ending in the extreme southwest end of the Peninsula. In the south, the Eastern Ghats merge with the Western Ghats and the eastern parts of the Niligiri, Anamalai and Palani Hills also form parts of the Eastern Ghats (Mani, 1974). The ichthyofauna of Eastern Ghats have not been thoroughly studied as those of the Western Ghats. The only comprehensive account of the Eastern Ghats is that of Menon (1951) based on his extensive surveys and study of the fauna of Orissa hills and the rest of the Eastern Ghats, in which was also included all earlier reports beginning with Day (1878) from Orissa hills and Eastern Ghats; Misra (1938) from Eastern Ghats below the Krishna River; Hora (1938) from Bailadila range, Bastar State, Central Province; Hora (1940) from the headwaters of Mahanadi; Chauhan (1947) from Orissa; and the material collected by Chauhan in 1951 from Simlipal Hills, Mayurbhanj (Orissa). A total of 119 species have been listed by Menon (1951). The present list includes subsequent reports by Venkateswaralu and Bakde (1986), Lazarus *et al.* (1988), Devi (1992), Devi and Menon (1995) and Devi and Raghunathan (1999).

A total of 127 species under nine orders and 26 families are given. Classification follows Nelson (1994), Jayaram (1999) and Menon (1999). While listing the species of Eastern Ghats, both Menon (1999) and Jayaram (1999) have been followed and based on our own judgement we have adopted the better of the two.

Discussion

Menon (1951) listed 119 fish species from Eastern Ghats based on his extensive collections and earlier reports. His study rendered substantial support to Hora's Satpura Hypothesis. From a study of the distribution of the ichthyofauna of this range he opined that the discontinuous line of hills of the Eastern Ghats is further divisible into two major divisions, the part lying above the Godavari river which he called the Orissa hills and the other lying below the Krishna for which he felt the term Eastern Ghats could be more appropriately used. He found the fish fauna of the Mahanadi basin to be chiefly Gangetic and this condition did not appear in the drainage below it except to a very small extent in the Godavari. He found a total absence of Malayan elements in the fish fauna of the Eastern Ghats and also the absence of any endemism.

From Western Ghats, 208 primary freshwater fishes are known (Menon, 1999) of which more than 50% (112 species) are endemics whereas in Eastern Ghats, of the 127 species listed here, only one is endemic viz. *Lepidocephalus coromandalensis* Menon. Another endemic species of Palani Hills viz., *Horlabiosa palaniensis* Rema Devi and Menon is not included in the present list since the exact collection site in the Palani Hills is not known. According to Menon 1951, "The spread of the fish fauna to the Orissa hills and the Eastern Ghats from the Satpuras and Western Ghats, especially the northern portion of it, seems to have been brought about by the earth movements that affected Peninsular India and subsequently reversed the north westerly drainage of the Godavari and the Mahanadi. The absence of any endemism in the fish fauna of the Eastern Ghats strongly supports the view that the tilting of the Peninsula and the consequent reversal of drainage had occurred only during comparatively recent times in the geological history and sufficient time had not yet elapsed since the colonisation of fishes in the hills of the Eastern Ghats for

Received 18 July 2002;

Revised received 18 January 2003;

Finally accepted 24 January 2003

List of fishes of Eastern Ghats

- Division: Teleostei
Subdivision: Osteoglossomorpha
Order: Osteoglossiformes
Family: Notopteridae
Notopterus notopterus (Pallas)
Chitala chitala (Hamilton)
- Subdivision: Elopomorpha
Order: Anguilliformes
Family: Anguillidae
Anguilla bengalensis (Hamilton)
- Subdivision: Clupeomorpha
Order: Clupeiformes
Family: Clupeidae
Subfamily: Alosinae
Gudusia chapra (Hamilton)
- Subfamily: Dorosomatinae
Goniolosa manmina (Hamilton)
- Subdivision: Euteleostei
Suborder: Ostariophysii
Order: Cypriniformes
Family: Cyprinidae
Subfamily: Danioninae
Tribe: Oxygasterini
Securicula gora (Hamilton)
Salmostoma bacaila (Hamilton)
Salmostoma boopis Day
Salmostoma clupeoides (Bloch)
Salmostoma phulo orissaensis Banarescu
Salmostoma untrachi (Day)
Aspidoparia morar (Hamilton)
Barilius barna (Hamilton)
Barilius barila (Hamilton)
Barilius bendelisis (Hamilton)
Barilius bola (Hamilton)
- Tribe: Danionini
Brachydanio rerio (Hamilton)²
Chela cachius (Hamilton)
Chela laubuca (Hamilton)
Esomus barbatus (Jerdon)¹
Esomus danricus (Hamilton)
Esomus thermoicos (Hamilton)^{*1}
Danio malabaricus (Jerdon)
Danio aequipinnatus (McClell.)
Danio devario (Hamilton)
Rasbora caverii (Jerdon)^{*}
Rasbora daniconius (Hamilton)
Rasbora rasbora (Hamilton)
Amblypharyngodon microlepis (Bleeker)
Amblypharyngodon mola (Hamilton)
- Subfamily: Cyprininae
Tribe: Cyprinini
Subtribe: Tores
Tor khudree (Sykes)
- Tribe: Systomini
Subtribe: Osteobramae
Osteobrama cotio (Hamilton)
Osteobrama cotio cunma Day
Osteobrama neilli (Day) (= *Rohtee duvancelli* (Val.))
Osteobrama vigorsii (Sykes)
- Subtribe: Poropintii
Chagunius chagunio (Hamilton)
- Subtribe: Systomi
Oreochthys cosuatis (Hamilton)
Puntius amphibius (Val.)
Puntius ambassis (Day)
Puntius bimaculatus (Bleeker)^{*}
Puntius chola (Hamilton)
Puntius conchoni (Hamilton)
Puntius dorsalis (Jerdon)
Puntius filamentosus (Val.)
Puntius gelius (Hamilton)
Puntius guganio (Hamilton)
Puntius melanampyx Day³
Puntius phutunio (Hamilton)
Puntius sarana sarana (Hamilton)
Puntius sarana subnasutus (Val.)
Puntius sophore (Hamilton)
Puntius terio (Hamilton)
Puntius ticto (Hamilton)
Puntius vittatus Day^{*}
- Tribe: Labeonini
Subtribe: Labeonae
Cirrhinus fulungee (Sykes)
Cirrhinus mrigala (Hamilton)^{*}
Cirrhinus reba (Hamilton)
Catla catla (Hamilton)
Labeo angra (Hamilton)
Labeo ariza (Hamilton)
Labeo bata (Hamilton)
Labeo boggut (Sykes)
Labeo calbasu (Hamilton)
Labeo fimbriatus (Bloch)
Labeo gonius (Hamilton)
Labeo rohita (Hamilton)
- Subfamily: Garrinae
Garra mullya (Sykes)
Crossocheilus latius latius (Hamilton)
- Family: Parapsilorhynchidae
Parapsilorhynchus tentaculatus (Annandale)
- Family: Balitoridae
Subfamily: Noemacheilinae
Acanthocobitis botia (Hamilton)
Acanthocobitis moreh (Sykes) (= *N. botia aureus*)
Schistura denisoni denisoni (Day)
Oreonectes (Indoreonectes) evezardi (Day)
Schistura denisoni dayi Hora
- Family: Cobitidae
Subfamily: Cobitinae
Lepidocephalus guntea (Hamilton)
Lepidocephalus thermalis (Val.)
Lepidocephalus coromandalensis Menon (Endemic)^{*}
- Order: Siluriformes
Family: Bagridae
Subfamily: Ritinae
Rita chrysea (Day)
- Subfamily: Bagrinae
Mystus armatus (Day)^{*}
Mystus cavasius (Hamilton)
Mystus gulio (Hamilton)
Mystus menoda (Hamilton)
Mystus montanus (Jerdon)^{*}
Mystus tengara (Bloch)
Mystus vittatus (Bloch)
Aorichthys aor (Hamilton)
Aorichthys seenghala (Sykes)^{*}
- Family: Siluridae
Ompok bimaculatus (Bloch)
Ompok pabda (Hamilton)
Wallago attu (Bloch & Schn.)
- Family: Schilbeidae
Subfamily: Ailinae
Ailia coila (Hamilton)
- Subfamily: Schilbeinae
Pseudeutropius atherinoides (Bloch)
Neotropius khavalchor Kulkarni^{*}
Clupisoma garua (Hamilton)
Eutropiichthys murius (Hamilton)
Eutropiichthys vacha (Hamilton)
- Family: Pangasiidae
Pangasius pangasius Hamilton
- Family: Amblycipitidae
Amblyceps mangois (Hamilton)
- Family: Sisoridae
Bagarius bagrius (Hamilton)
Gagata cenia (Hamilton)
Nangra itchkea (Sykes)^{*}
Hara hara (Hamilton)
Glyptothorax lonah (Sykes) (= *G. dekkanensis* Gunther)

Family: Clariidae
Clarias batrachus (Linnaeus)

Family: Heteropneustidae
Heteropneustes fossilis (Bloch)

Super Order: Acanthopterygii
Series: Mugilomorpha
Order: Mugiliformes
Family: Mugilidae
Rhinomugil corsula (Hamilton)

Series: Atherinomorpha
Order: Beloniformes
Suborder: Adrianichthyoidei
Family: Adrianichthyidae
Subfamily: Oryziinae
Oryzias melastigma (McClell.) *

Suborder: Belonoidei
Family: Belontiidae
Xenentodon cancila (Hamilton)

Order: Cyprinodontiformes
Family: Aplocheilidae
Aplocheilus lineatus (Val.)
Aplocheilus panchax (Hamilton)

Order: Synbranchiformes
Suborder: Synbranchoidei
Family: Synbranchidae
Monopterus albus (Hamilton)

Suborder: Mastacembeloidei
Family: Mastacembelidae
Subfamily: Mastacembelinae
Macrogathus aral (Bloch & Schneider)
Macrogathus pancalus Hamilton
Mastacembelus armatus (Lacepede)

Order: Perciformes
Suborder: Percoidae
Family: Chandidae
Chanda nama Hamilton
Parambassis baculis (Hamilton)
Parambassis ranga (Hamilton)

Family: Nandidae
Subfamily: Badinae
Badis badis (Hamilton)

Subfamily: Nandinae
Nandus nandus (Hamilton)

Suborder: Labroidei
Family: Cichlidae
Etroplus maculatus (Bloch)

Suborder: Gobioidae
Family: Gobiidae
Subfamily: Gobiinae
Glossogobius giuris (Hamilton)

Subfamily: Sicydinae
Sicyopterus griseus (Day)

Suborder: Anabantoidei
Family: Anabantidae
Anabas testudineus (Bloch)

Suborder: Channoidei
Channa orientalis (Schneider)
Channa punctatus (Bloch)
Channa striatus (Bloch)
Channa marulius

Exotic Fishes Collected:

Oreochromis mossambica (Peters)
Oreochromis niloticus Hassenquist
Gambusia affinis (Baird & Girard)
Poecilia reticulata (Peters)
Hypophthalmichthys molitrix (Val.)
Carassius carassius Linnaeus

*Recorded subsequent to Menon (1951)

¹ *Esomus barbatus* (Jerdon) lacks a lateral body stripe which is characteristic of *E. thermoicos* (Val.) hence these species are kept separate as in Jayaram (1999), though Menon (1999) treats the former as a synonym of the latter.

² The species *rerio* has been placed under the genus *Brachydanio* (following Jayaram, 1999) and not *Danio* (as in Menon, 1999) since *Brachydanio* differs from *Danio* in having fewer branched dorsal rays and a recent revision by Kottelat raising the earlier subgenus *Brachydanio* to a separate generic status (Jayaram, 1999) is followed here.

³ The name *melanampyx* has been retained following justifications given in Menon (1999).

“further speciation to take place”.

The present list of the fish fauna of the Eastern Ghats includes 12 species not reported by Menon (1951). Also six exotic species have been collected from the wild. As observed by Menon (1951) no typical Malayan element or endemism could be observed in the subsequent collections.

A recent report (Prasad & Rao, 1999) on the fishes from the Hill streams of Araku, Andhra Pradesh, lists 11 species of which the identity of two species viz *Garra lissorhynchus* (McCl.) and *Noemacheilus arunachalensis* (Menon) needs further confirmation since the former is known only from the Brahmaputra River Systems and the latter is restricted to Arunachal Pradesh. The remaining nine species are already included in the present list.

Acknowledgements

We thank the Director, Zoological Survey of India, Dr. J.R.B. Alfred and the former Officer-in-Charge, Southern Regional Station, Zoological Survey of India for providing necessary facilities and especially to the latter for going through the manuscript. Our sincere gratitude is due to the Late Dr. A.G.K. Menon who has always been the moving force in all our ichthyological studies.

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