FISH FAUNA OF HYDERABAD AND ITS ENVIRONS

S.V.A. Chandrasekhar

ABSTRACT
The fish diversity of Hyderabad and its environs is reviewed through collection and literature survey in this paper. Sixty-five species of fishes belonging to 36 genera in 13 families spread over five orders have been recorded in nine tanks in and around Hyderabad. Common names, number of material housed and examined along with distribution are published.

KEYWORDS
Checklist, Fishes, Hyderabad, India, review

Hyderabad has approximately 170 major and minor water bodies in its metropolitan limits. Hyderabad City includes Hyderabad and Ranga Reddy districts and parts of Medak District. The most important river is Musi, rising in Ananthagiri Hills and passing through the city and draining into the Krishna River near Wazirabad in Nalgonda District. Manjira Lake is situated in the northwestern side of the city. The city is unique in having a very rich fishery potential especially freshwater fishes due to the presence of a number of major and minor water bodies in its environs.

The Musi River flowing over Deccan Plateau is one of the major tributaries of river Krishna, which originates from the Ananthagiri Hills of Ranga Reddy district with the catchment area of 11,170km². River Musi is heavily contaminated with domestic sewage and industrial effluents loaded with toxic chemicals and metals. The river traverses a distance of about 15km through the heart of Hyderabad City and lies between 17°21'–17°24'N and 78°25'–78°32'E. There is no regular flow of water in the river from upstream due to the construction of reservoirs like Osmansagar and Himayatsagar, which are the major sources of supply of drinking water to the city.


The literature on the fish fauna of Hyderabad and its environs shows that a considerable attempt has been made by Rahimullah (1943 & 1944) who has reported 36 species (from Himayatsagar, Omsansagar, Hussainsagar, Mir Alam Tank and Ibrahimpatnam Cheruvu), but in recent years this has become a practically unexplored endeavour as most of the water bodies in the area are polluted due to industrialisation and urbanisation.

The study was carried out from the fish collections from the water bodies of Hyderabad and its neighborhood and also from literature available in Freshwater Biological Station (FBS), Zoological Survey of India (ZSI), Hyderabad. These water bodies include Hussainsagar, Himayatsagar, Omsansagar, Mir Alam tank, Ibrahimpatnam Cheruvu, Indirasagar, Manjira Lake, Saroornagar Lake and Shameerpet Tank.

MATERIAL AND METHODS
The present work was undertaken to study the specimens collected since 1979 by the scientists of Freshwater Biological Station (FBS), Zoological Survey of India (ZSI), Hyderabad, available in the station and also from publications of Rahimullah (1943) and Barman (1993). The study was limited to the collections of the water bodies located approximately within 60km radius from the centre point of Hyderabad City (Abids). These water bodies include Himayatsagar, Omsansagar, Hussainsagar, Ibrahimpatnam Cheruvu, Mir Alam Tank, Saroornagar Lake, Indirasagar, Manjira Lake, and Shameerpet Tank (Supplement*).

A total number of 3,523 examples were examined. Details of the material examined comprising registration numbers (in ascending order), dates of collections, locality coinciding with registration numbers, sizes/its ranges expressed in centimetres and number of examples are given. During the course of preservation, fins of some of the fishes were damaged and hence their photographs do not depict their fins completely. Although Macrognathus

* See supplementary notes on water bodies at www.zoosprint.org

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FRESHWATER BIOLOGICAL STATION, ZOOLOGICAL SURVEY OF INDIA, 1-1-300/B, ASHOKNAGAR, HYDERABAD, ANDHRAPRadesh 500020, INDIA
*panculus* was not recorded from these collections, its photograph has been taken from the collections made earlier from Kolleru Lake in Andhra Pradesh.

Out of the below 65 species, *Oreochromis niloticus* (Linnacus), is not available in India. But Fisheries Department, Government of Andhra Pradesh has imported the specimens from Bangkok and introduced it in some fish ponds in the twin cities of Hyderabad and Secunderabad – fish ponds at Lower Tank Bund, Centre for Cellular and Molecular Biology (CCMB) and P.G. Science College at Saifabad.

In this paper a checklist of species of fishes along with their

**References**


* See supplementary notes on water bodies in and around Hyderabad City and more information on the collected species at www.zoosprint.org
Table 1. Freshwater fishes in and around Hyderabad

<table>
<thead>
<tr>
<th>Family</th>
<th>Sub-family</th>
<th>Species</th>
<th>Distribution</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notopterus</td>
<td></td>
<td>Cirrhinus mirigala</td>
<td>India, Pakistan, Bangladesh and Burma</td>
<td>Uncommon</td>
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<td></td>
<td></td>
<td>Cirrhinus reba</td>
<td>India, Pakistan, Nepal and Bangladesh</td>
<td>Uncommon</td>
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<td></td>
<td></td>
<td>Cyprinus carpio</td>
<td>Naturally found in China, Korea, Japan, Taiwan, Europe, America; introduced in South India from Sri Lanka in 1939</td>
<td>Common</td>
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<td></td>
<td></td>
<td>Osteobrama belangeri</td>
<td>India: Manipur and south India; Burma and Yunnan (China)</td>
<td>Uncommon</td>
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<tr>
<td></td>
<td></td>
<td>Osteobrama cotio cotio</td>
<td>India: Mahanadi, Godavari and Krishna river systems</td>
<td>Uncommon</td>
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<td></td>
<td></td>
<td>Thynnichthys sandkhol</td>
<td>India: Mahanadi, Godavari, Krishna and Tungabhadra river systems</td>
<td>Rare</td>
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<td></td>
<td></td>
<td>Gonoproktopterus kolus</td>
<td>Deccan and Mysore Plateau in Krishna, Godavari and Cauvery rivers</td>
<td>Uncommon</td>
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<td></td>
<td></td>
<td>Puntius amphibius</td>
<td>Peninsular India upto Orissa and Rajasthan; Sri Lanka</td>
<td>Uncommon</td>
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<td>Puntius chola</td>
<td>Throughout India, Pakistan, Nepal, Bangladesh, Burma and Sri Lanka</td>
<td>Common</td>
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<td></td>
<td></td>
<td>Puntius conchonis</td>
<td>India: Ganga, Brahmaputra, Mahanadi river systems in Uttar Pradesh; Bihar, West Bengal, Orissa, and Andhra Pradesh; Pakistan, Nepal, Bengal</td>
<td>Rare</td>
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<tr>
<td></td>
<td></td>
<td>Puntius dorsalis</td>
<td>Cauvery and Krishna River systems in South India, Sri Lanka</td>
<td>Uncommon</td>
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<td></td>
<td></td>
<td>Puntius filamentosus</td>
<td>India: Goa, Karnataka, Kerala and Tamil Nadu, Sri Lanka, Burma and Thailand</td>
<td>Uncommon</td>
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<tr>
<td></td>
<td></td>
<td>Garra goltia</td>
<td>Cauvery and Krishna river systems</td>
<td>Uncommon</td>
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<td></td>
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<td>Garra melanosoma</td>
<td>Cauvery river system, Wynaad hills and Bhavani River in South India</td>
<td>Rare</td>
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<td></td>
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<td>Puntius sarana</td>
<td>Throughout India except Assam and Himalaya</td>
<td>Common</td>
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<td>Puntius sophor</td>
<td>Throughout India, Pakistan, Nepal, Bangladesh, Burma and Yunnan</td>
<td>Common</td>
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<td></td>
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<td>Puntius terio</td>
<td>Throughout India, Pakistan, Nepal, Bangladesh, Sri Lanka, Tamil Nadu, and Bhutan</td>
<td>Common</td>
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<td>Puntius ticto</td>
<td>Throughout India, Pakistan, Nepal, Bangladesh, Sri Lanka, Bhutan</td>
<td>Rare</td>
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<td>Labeo calbasu</td>
<td>Throughout India, Pakistan, Burma, Bangladesh, Nepal, Thailand and Yunnan</td>
<td>Uncommon</td>
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<td></td>
<td></td>
<td>Labeo limbiarius</td>
<td>India: Punjab, Uttar Pradesh, Orissa, Madhya Pradesh, Maharashtra, Gujarat and South India; Nepal, Burma, Pakistan</td>
<td>Common</td>
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<td></td>
<td>Labeo poitai</td>
<td>India: Maharashtra, Andhra Pradesh and Deccan. Species occurring in Godavari and Krishna river systems; this species has been designated as threatened species of India</td>
<td>Rare</td>
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<td>Labeo rohita</td>
<td>Northern and central India; Bangladesh; Terai region of Nepal, Burma</td>
<td>Common</td>
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<td>Labeo sidensis</td>
<td>India: Hardwar (Uttar Pradesh), Punjab and Poona (Maharashtra); Pakistan: Sind.</td>
<td>Common</td>
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<td>Family: Cyprinidae</td>
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<td>Puntius sarana</td>
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<td>Common</td>
</tr>
</tbody>
</table>
Family: Cobitidae
Sub-family: Cobitinae
Lepidophthalmus guentca (Hamilton-Buchanan)
Distribution: Northern India: Ganga and Brahmaputra river systems; Nepal, Bangladesh, Pakistan, Burma.
Remarks: This species is new record to Hyderabad and its environs.
Status: Common.

Order: Siluriformes
Family: Bagridae
Sub-family: Bagrinae
Aorichthys aor (Hamilton-Buchanan)
Distribution: India: Northern India upto the Krishna river system in south; Pakistan, Nepal, Bangladesh, Upper Burma.
Status: Uncommon.

Aorichthys seenghala (Sykes)
Distribution: Throughout India, Pakistan, Nepal, Bangladesh, Burma, Malaya.
Status: Rare.

Mystus bleekeri (Day)
Distribution: Throughout India, Pakistan, Nepal, Bangladesh, Burma, Malaya.
Status: Common.

Mystus cavasius (Hamilton-Buchanan)
Distribution: India, Pakistan, Sri Lanka, Nepal, Bangladesh, Burma, Thailand.
Status: Uncommon.

Mystus vittatus (Bloch)
Distribution: Throughout India, Pakistan, Nepal, Bangladesh, Burma, Sri Lanka, Thailand, and Malaya.
Status: Common.

Family: Siluridae
Wallago attu (Bloch and Schneider)
Distribution: India, Pakistan, Bangladesh, Burma, Sri Lanka, Thailand, Indonesia.
Status: Common.

Ompok bimaculatus (Bloch)
Distribution: India, Pakistan, Nepal, Bangladesh, Sri Lanka, Burma, Thailand, Java, Sumatra, Borneo, China.
Status: Uncommon.

Ompok malabaricus (Valenciennes)
Distribution: India: Goa and Kerala.
Status: Rare.

Family: Claridae
Clarias batrachus (Linnaeus)
Distribution: India, Pakistan, Nepal, Bangladesh, Burma, Indonesia, Singapore, Philippines.
Status: Common.

Family: Heteropneustidae
Heteropneustes fossilis (Bloch)
Distribution: India, Pakistan, Sri Lanka, Nepal, Bangladesh, Burma, Thailand, Laos.
Status: Common.

Super order: Acanthopterygii
Order: Cyprinodontiformes
Family: Poeciliidae
Sub-family: Poecilinae
Gambusia affinis (Baird & Girard)
Distribution: Introduced in several states of India; Pakistan, Burma, Sri Lanka, Southeastern U.S.A.
Status: Uncommon.

Order: Perciformes
Sub-order: Channoidei
Family: Channidae
Channa marulius (Hamilton-Buchanan)
Distribution: India, Sri Lanka, Bangladesh, Nepal, Burma, Thailand and China.
Status: Uncommon.

Channa orientalis Bloch & Schneider
Distribution: India, Pakistan, Nepal, Bangladesh, Burma and Sri Lanka.
Status: Uncommon.

Channa punctatus (Bloch)
Distribution: India, Afghanistan, Pakistan, Sri Lanka, Nepal, Bangladesh, Burma, China.
Status: Common.

Channa striatus (Bloch)
Distribution: India, Pakistan, Sri Lanka, Bangladesh, Nepal, Burma, Malay Archipelago, Thailand, South China.
Status: Common.

Sub-order: Labroidei
Family: Cichlidae
Etroplus maculatus (Bloch)
Distribution: India, Pakistan, Sri Lanka.
Status: Uncommon.

Etroplus suratensis (Bloch)
Distribution: India: Orissa, Andhra Pradesh, Tamilnadu and Kerala; Sri Lanka.
Status: Uncommon.

Oreochromis mossambicus (Peters)
Distribution: India, Pakistan, Sri Lanka.
Status: Uncommon.

Oreochromis nilotica (Linnaeus)
This species is not available in India. But Fisheries Department, Government of Andhra Pradesh has imported the specimens from Bangkok and introduced in some fish ponds in twin cities of Hyderabad and Secunderabad viz., fish ponds at Lower Tank Bund, Centre for Cellular and Molecular Biology (CCMB), P.G. Science College, Sattabad and others.

Sub-order: Gobiodei
Family: Gobiidae
Glossogobius giuris (Hamilton-Buchanan)
Distribution: Indo-west Pacific.
Status: Common.

Sub-order: Anabantoida
Family: Belontiidae
Sub-family: Trichogasterinae
Colisa fasciatus (Schneider)
Distribution: India, Pakistan, Nepal, Bangladesh, Burma.
Status: Common.

Family: Trichogasterinae
Osphronemus goramy Lacepede
Distribution: It is an exotic fish, introduced in different parts of India: Pakistan, Bangladesh, Ceylon, Mauritius, Malaya, Malay-Archipelago, Siam, China, Philippines, Australia.
Status: Uncommon.

Order: Synbranchiformes
Sub-order: Mastacembeloidei
Family: Mastacembelidae
Sub-family: Mastacembelinae
Macrognathus pancreus (Hamilton-Buchanan)
Distribution: India, Pakistan and Bangladesh.
Status: Uncommon.

Mastacembalus armatus (Lacepede)
Distribution: India, Pakistan, Bangladesh, Burma, Sri Lanka, Malaya, Nepal, Thailand to south China.
Status: Uncommon.

Acknowledgements
The author is grateful to the Director, Z.S.I., Kolkata and the Officer-in-Charge, F.B.S., Z.S.I., Hyderabad for the facilities provided. Thanks are also due to Dr. M. Babu Rao, Rtd. Director, Fisheries College, Andhra Pradesh Agricultural University, Nellore, Andhra Pradesh (former Superintending Zoologist & Officer-in-Charge, F.B.S., Z.S.I., Hyderabad) for critically going through the manuscript. Dr. K. Rema Devi, Scientist SD, Southern Regional Station, Z.S.I., Chennai for providing necessary information on Puntius spp., and Dr. Ravishankar Piska, Reader.