



RESEARCH ARTICLE

FISH FAUNA OF AWANGSOI LAKE, BISHNUPUR DISTRICT, MANIPUR, INDIA

¹*Huidrom Puinyabati, ²Maibam Shomorendra and ³Devashish Kar

¹Department of Zoology, Pravabati College, Mayang Imphal-795132, Manipur

²Fish disease Research Lab, Department of Zoology, Thambal Marik College, Oinam-795134, Manipur, India

³Division of Wetlands, Fishery Science and Aquaculture, Department of Life Science and Bioinformatics, Assam (Central) University, Silchar-11, Assam, India

ARTICLE INFO

Article History:

Received 18th July, 2016

Received in revised form

20th August, 2016

Accepted 26th September, 2016

Published online 30th October, 2016

ABSTRACT

The present work was conducted to see the fish fauna of Awangsoi Lake during April, 2015 to September, 2015. The study showed the presence of 31 fish species belonging to 21 genera of 13 families and 5 orders. *Puntius* species showed the highest yield, followed by *Channa punctata*, *Anabas testudineus*, *Trichogaster fasciata*, *T. labiosa*, *Amblypharyngodon mola*, *Heteropneustes fossilis* etc.

Key words:

Fish fauna,
Awangsoi Lake,
Manipur,
India.

Copyright © 2016, Huidrom Puinyabati et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Huidrom Puinyabati, Maibam Shomorendra and Devashish Kar. 2016. "Fish fauna of awangsoi lake, Bishnupur District, Manipur, India", *International Journal of Current Research*, 8, (10), 40362-40365.

INTRODUCTION

Many workers have been done on freshwater fishes of Manipur. Menon reported 63 species of fish under 14 families and 29 genera from the Loktak Lake, the Imphal River and the Barak River of Manipur. Kar (2007) made detailed study of the limnology and ichthyofauna of the waterbodies of North-East (NE) India including diseases in fishes. Kar and Sen (2007) studied on systematic list and distribution of fish biodiversity in Mizoram, Tripura and Barak drainage in North East India. Kar et al. (2008) studied on Panorama of fish biodiversity in certain rivers and wetlands in Manipur. Vishwanath and Singh recorded a new species of the genus *Puntius* Hamilton from Manipur. Vishwanath and Sarojnalini recorded another new cyprinid fish *Garra manipurensis* from Manipur. Vishwanath and Kosygin (2000a, 2000b) reported two new cyprinid fishes from Manipur. The authors conducted the present work to see the fish fauna of Awangsoi Lake during April, 2015 to September, 2015.

MATERIALS AND METHODS

Study area

Awangsoi Lake is located to the south of Keinou village in Bishnupur District, Manipur, about 24 km. from Imphal. This lake is situated between 24°39'48''N - 24°39'23''N latitude and 93°47'04''E - 93°46'90'' E longitude and at an altitude of 2525 feet above the mean sea level. It has an area of 100 hectares and measures about 2-5 meters in depth. This area enjoys a sub-tropical monsoon. A host of factors including the alternating sub-continental pressure cells of north-west India and the Bay of Bengal, the predominant moist maritime tropical air mass (mT), the roving periodic western disturbances, local mountains and valley winds, the nature and intensity of forest cover, and the waterbodies, particularly the Loktak Lake, influence the pattern of climate in the place.

Study of fish fauna

The fishes were collected from the study area by using dip net, cast net, gill nets, traps and different kinds of fish catching appliances with the help of fisherman.

*Corresponding author: Huidrom Puinyabati,

Department of Zoology, Pravabati College, Mayang Imphal-795132, Manipur

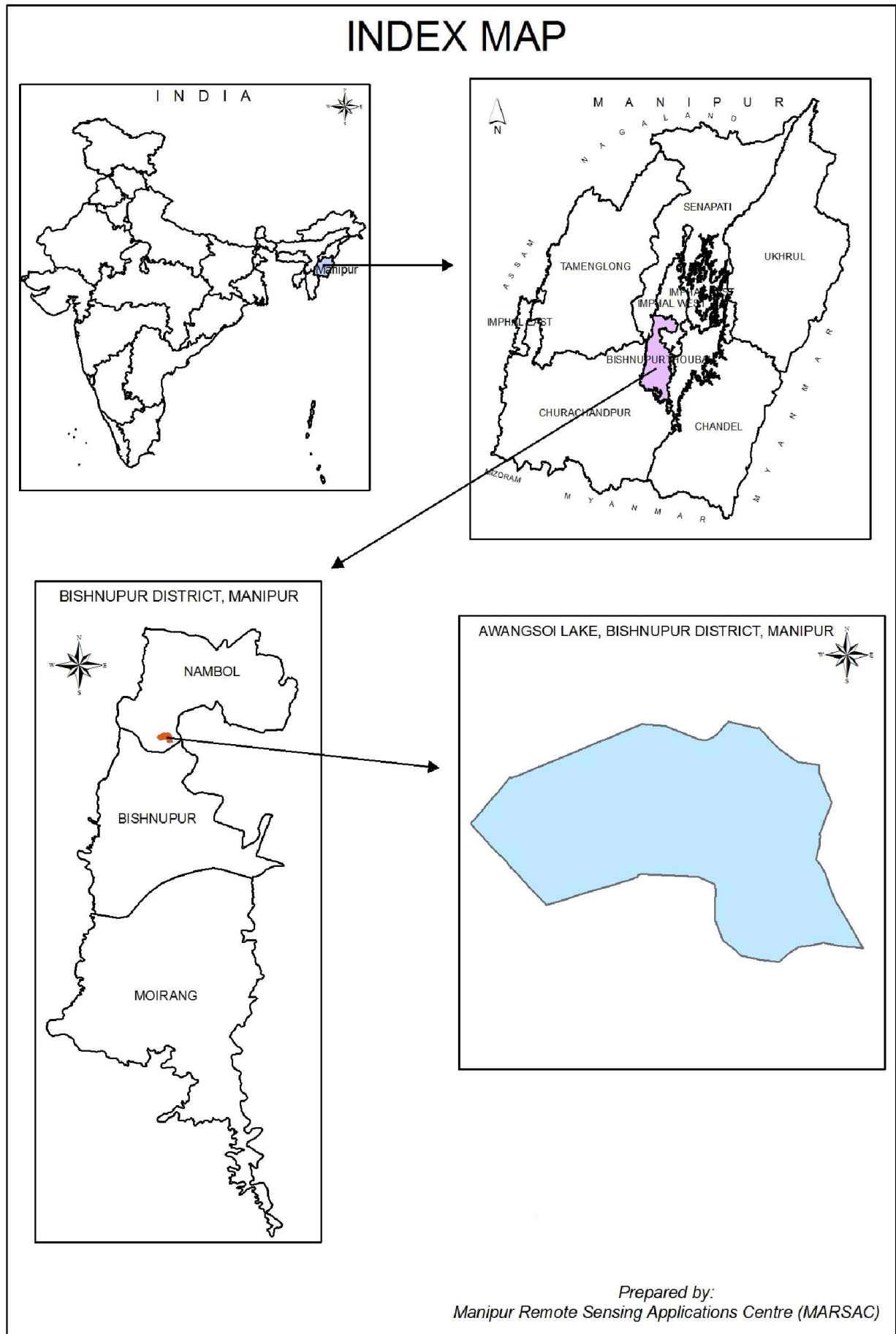


Fig.1. Map showing location of Awangsoi Lake, Manipur

Table 1. List of the fishes found in Awangsoi Lake, Manipur

| Sl. No. | Name of the fish species | Order | Family | Local name |
|---------|--|-------------------|-----------------|------------------------|
| 1. | <i>Labeo rohita</i> (Ham-Buch) | Cypriniformes | Cyprinidae | Rou |
| 2. | <i>Labeo gonius</i> (Ham-Buch) | -do- | -do- | Kuri rou |
| 3. | <i>Cyprinus carpio</i> (Linnaeus) | -do- | -do- | Puklaobi |
| 4. | <i>Cirrhinus mrigala</i> (Ham-Buch) | -do- | -do- | Mrigal |
| 5. | <i>Hypophthalmichthys molitrix</i> (Valenciennes) | -do- | -do- | Silver carp |
| 6. | <i>Ctenopharyngodon idella</i> (Valenciennes) | -do- | -do- | Napi chabi, Grass carp |
| 7. | <i>Catla catla</i> (Hamilton) | -do- | -do- | Catla, Bao |
| 8. | <i>Amblypharyngodon mola</i> (Ham-Buch) | -do- | -do- | Muka nga |
| 9. | <i>Esomus danricus</i> (Ham-Buch) | -do- | -do- | Ngasang |
| 10. | <i>Puntius chola</i> (Ham-Buch) | -do- | -do- | Phabounga |
| 11. | <i>Puntius sophore</i> (Ham-Buch) | -do- | -do- | Phabounga |
| 12. | <i>Puntius sarana sarana</i> (Ham-Buch) | -do- | -do- | Ngahou |
| 13. | <i>Puntius manipurensis</i> (Menon, Rema & Vishwanath) | -do- | -do- | Ngakha meingangbi |
| 14. | <i>Puntius ticto</i> (Ham-Buch) | -do- | -do- | Ngakha |
| 15. | <i>Puntius stoliczkanus</i> (Day) | -do- | -do- | Phabounga |
| 16. | <i>Anabas testudineus</i> (Bloch) | Perciformes | Anabantidae | Ukabi |
| 17. | <i>Chanda nama</i> (Ham-Buch) | -do- | Chandidae | Ngamhai |
| 18. | <i>Trichogaster fasciata</i> (Schneider) | -do- | Belontiidae | Ngapemma |
| 19. | <i>T. labiosa</i> (Schneider) | -do- | -do- | Ngapemma |
| 20. | <i>Glossogobius giuris</i> (Ham-Buch) | -do- | Gobiidae | Nainongamu |
| 21. | <i>Oreochromis mossambica</i> (Peters) | -do- | Cichlidae | Tunghanbi |
| 22. | <i>Channa punctata</i> (Bloch) | -do- | Channidae | Ngamu bogra |
| 23. | <i>C. striata</i> (Bloch) | -do- | -do- | Porom |
| 24. | <i>C. orientalis</i> (Bloch & Schneider) | -do- | -do- | Meitei ngamu |
| 25. | <i>Clarias batrachus</i> (Linnaeus) | Siluriformes | Clariidae | Ngakra |
| 26. | <i>Heteropneustes fossilis</i> (Bloch) | -do- | Heteropneutidae | Ngachik |
| 27. | <i>Ompok bimaculatus</i> (Bloch) | -do- | Siluridae | Ngaten |
| 28. | <i>Mystus bleekeri</i> (Day) | -do- | Bagridae | Ngasep |
| 29. | <i>Mystus cavasius</i> (Ham-Buch) | -do- | -do- | Ngasep |
| 30. | <i>Monopterus albus</i> (Zuiew) | Synbranchiformes | Synbranchidae | Ngaproom |
| 31. | <i>Notopterus notopterus</i> (Pallas) | Osteoglossiformes | Notopteridae | Ngapai |

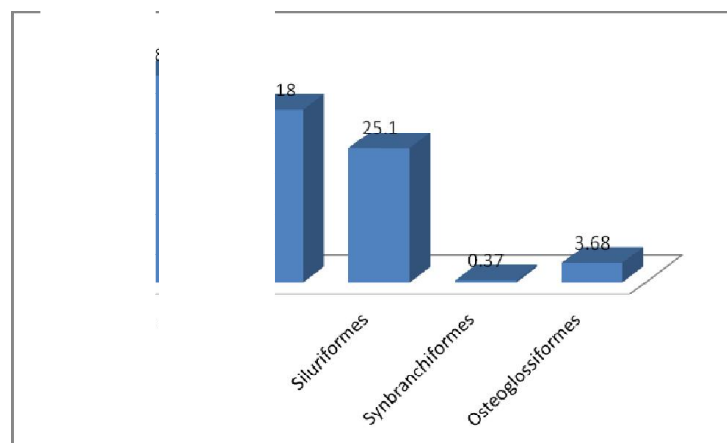


Fig. 2. Graphical representation of percentage of the occurrence of five different orders of fish found in Awangsoi Lake

After collection fishes were fixed in 10 % formalin solution and then brought to the laboratory for further study. Fishes were identified following, Jayaram (2010) and Vishwanath (2002).

RESULTS AND DISCUSSION

The present study showed the presence of 31 fish species belonging to 21 genera of 13 families and 5 orders. Of them *Chanda nama*, *Esomus danricus*, *Puntius sarana sarana*, *Notopterus notopterus*, *Lepidocephalus guntea*, *Lepidocephalus berdmorei*, *Mystes bleekeri*, *Mystes cavasius*, *Channa orientalis* and *Clarias batrachus* have been collected in very less numbers. *Puntius* species generally showed the highest yield, followed by *Channa punctata*, *Anabas testudineus*, *Trichogaster fasciata*, *T. labiosa*, *Amblypharyngodon mola*, *Heteropneustes fossilis* etc.

In the present study fishes of the family Cyprinidae was dominant. Table I shows a list of the fishes found in Awangsoi Lake, Manipur and fig I shows the graphical representation of percentage of the occurrence of five different orders of fish found in Awangsoi lake. The main sources of the fishes of Awangsoi Lake are Loktak Lake and Yangoi macha river. Most of the fish species are available throughout the year but fishes were mainly caught in winter and dry seasons due to higher water level of the lake in rainy season. There was no record of new fish species in our present investigation.

Acknowledgement

The authors are thankful to Principal, Pravabati College, Mayang Imphal for giving laboratory facilities. The authors are also thankful to University Grant Commission, North-Eastern Regional Office for granting a minor research project to the first author.

REFERENCES

- Jayaram, K.C. 2010. The Freshwater Fishes of Indian Region. Narendra Publishing House (Delhi).
- Kar D. 2007. Fundamental of Limnology and Aquaculture and Biotechnology. Daya Publishing House (New Delhi).
- Kar, D. and Sen, N. 2007. Systematic list and distribution of fish biodiversity in
- Kar, D., Bharbhuiya, A.H., Thangjam, G., Devi, S.M., Deb, S., Das, B. 2008. Panorama of fish biodiversity in certain rivers and wetlands in Manipur. *Proc. Zool.Soc., India* 7(2):123-134.
- Mizoram, Tripura and Barak drainage in North East India. *Zoos Print Journal* 22(3):2599-26007.
- Vishwanath W. 2002. Fishes of North East India. NATP Publication, Manipur University.
- Vishwanath, W. and Kosygin, L. 2000b. *Garra elongate*, a new species of the sub-Family Garrinae from Manipur, India (Cyprinidae: Cypriniformes). *Journal of Bombay Natural History Society* 97(3): 408-417.
- Vishwanath, W., Kosygin, L. 2000a. Fishes of the cyprinid genus *Semiplotus* Bleeker, 1839, with description of a new species from Manipur, India. *Journal of Bombay Natural History Society* 97(1): 92-102.
