

NOTES ON AQUATIC ENTOMOFAUNA OF NARATHALY LAKE OF BUXA TIGER RESERVE, WEST BENGAL

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INTRODUCTION

During the course of investigation on wetland faunal resources of West Bengal, Narathaly Lake of Buxa Tiger Reserve (BTR) which lies between 26°55' N latitude and 89°20' and 89°55' E longitude, under Alipurduar Subdivision of Jalpaiguri district was surveyed twice in September-October 1996 and 1997. BTR covers an area of 760.87 sq. km. of which 385.02 sq. km. area of core zone consists of Buxa Sanctuary and National Park. It is rich in flora and fauna. But, very little work has been done to understand the biodiversity status of this reserve (Banerjee, 1998; Raychaudhuri, 1996; Raychaudhuri and Saha, 2000; Saha and Raychaudhuri, 1998). Since there is no information of wetland fauna of BTR, the present paper on aquatic insect fauna of Narathaly Lake located within the reserve is communicated.

RESULTS AND DISCUSSION

So far, a total of 29 aquatic insect species belonging to 23 genera under 15 families and 5 orders have been identified from the lake and presented in Table 1. Of the 5 insect orders, Hemiptera shows highest diversity (14 species) followed by Coleoptera (8 species). A perusal of literature reveals that Bal and Basu (1994a) reported two species of Gerrids (Hemiptera) viz., *Limnogonus parvulus* (Stal) and *Ptilomera laticauda* (Hardwicke) from Alipurduar Subdivision of Jalpaiguri district out of the four families of Hemiptera dealt in the paper. But, Bal and Basu (1994b) in the paper dealing with the other four families could not report a single species of Hemiptera from this district. A single species of 'whirligig beetles' (Family : Gyrrinidae), namely *Dineutus spinosus* (Fabricius) was recorded from Jalpaiguri district by Biswas *et al.*, (1995a) from four families of the order Coleoptera adapted to the aquatic life (Biswas *et al.*, 1995a,b,c) indicating ill-exploration from this district. Srivastava (1994) recorded 13 adult/larval ephemeropteran species from Jalpaiguri district including Alipurduar and Buxadour regions. Srivastava and Sinha (1993) encountered 43 species of adult Odonata from Jalpaiguri district. Chaudhuri and Chattopadhyay (1997) studied chironomid fauna of West Bengal which includes a number of species from Jalpaiguri district. Besides these reports on aquatic and semi-aquatic insects, there are records of 453 species of terrestrial insects (Table 2) compiled in the Newsletter of BTR (Anonymous, 1995).

Afterwards, Raychaudhuri (1996) and Raychaudhuri and Saha (2000) reported 12 species of wood boring cerambycid beetles from Buxa Tiger Reserve, while Saha and Raychaudhuri (1998) contributed on moths of this Tiger Reserve of West Bengal. Thus, the present paper is the first report on insects from wetland/lake habitat of this important protected area of West Bengal.

Table 1. Aquatic entomofaunal diversity of Narathaly Lake, Buxa Tiger Reserve, West Bengal.

<p>A. Order HEMIPTERA (Adult)</p> <p>Family BELSTOMATDAE</p> <p>1. <i>Diplonychus annulatum</i> (Fabricius)</p> <p>2. <i>Diplonychus rusticus</i> (Fabricius)</p> <p>Family CORIXIDAE</p> <p>3. <i>Micronecta</i> sp.</p> <p>Family GERRIDAE</p> <p>4. <i>Gerris</i> sp.</p> <p>5. <i>Limnogonus parvulus</i> (Stal)</p> <p>6. <i>Limnogonus</i> sp.</p> <p>Family HYDROMETRIDAE</p> <p>7. <i>Hydrometra</i> sp.</p> <p>Family MESOVELLIDAE</p> <p>8. <i>Mesovelia vittigera</i> Horvath</p> <p>Family NEPIDAE</p> <p>9. <i>Laccotrephes griseus</i> (Guerin)</p> <p>10. <i>Laccotrephes ruber</i> (Linnaeus)</p> <p>11. <i>Ranatra filiformis</i> Fabricius</p> <p>12. <i>Ranatra sordidula</i> Dohrn</p> <p>Family PLEIDAE</p> <p>13. & 14. <i>Plea</i> spp. (2 species)</p> <p>B. Order COLEOPTERA (Adult)</p> <p>Family DYTISCIDAE</p> <p>15. <i>Canthydrus laetabilis</i> (Walker)</p> <p>16. <i>Canthydrus</i> sp.</p>	<p>17. <i>Hydrovatus</i> sp.</p> <p>18. <i>Laccophilus</i> sp.</p> <p>Family HYDROPHILIDAE</p> <p>19. <i>Amphiops</i> sp.</p> <p>20. <i>Berosus indicus</i> Mots.</p> <p>21. <i>Regimbertia attenuata</i> (Fabr.)</p> <p>22. <i>Sternolophus rufipes</i> (Fabr.)</p> <p>C. Order DIPTERA (Larvae)</p> <p>Family CULICIDAE</p> <p>23. <i>Anopheles</i> sp.</p> <p>24. <i>Culex</i> sp.</p> <p>Family CHIRONOMIDAE</p> <p>25. Undetermined species (larvae)</p> <p>D. Order ODONATA (Larvae)</p> <p>Family LIBELLULIDAE</p> <p>26. <i>Urothemis</i> sp.</p> <p>Family COENAGRIONIDAE</p> <p>27. <i>Enallagma</i> sp.</p> <p>E. Order EPHEMEROPTERA (Larvae)</p> <p>Family BAETIDAE</p> <p>28. <i>Cloen</i> sp.</p> <p>Family CAENIDAE</p> <p>29. <i>Caenis</i> sp.</p>
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Table 2. Terrestrial insect faunal elements inhabiting Buxa Tiger Reserve.

Groups / Orders		Number of species
1.	Strepsiptera (Twisted winged insects)	1
2.	Coleoptera (Beetles and weevils)	183
3.	Dermoptera (Earwigs)	6
4.	Dictyoptera (Roaches)	4
5.	Diptera (Two winged insects)	10
6.	Heteroptera (Bugs)	63
7.	Homoptera (Cicadas, Leaf hoppers, etc.)	20
8.	Hymenoptera (Bees, Wasps, Ants, etc.)	49
9.	Isoptera (Termites)	1
10.	Lepidoptera (Butterflies & Moths)	78
11.	Mantodea (Preying mantids)	5
12.	Neuroptera (Lace wing bugs)	2
13.	Odonata (Dragonflies & Damselflies)	10
14.	Orthoptera (Grasshoppers, Crickets, etc.)	20
15.	Phasmida (Stick & Leaf insects)	1
Total = 453		

Source : Anonymous (1995) : *Newsletter BTR*, 2(1) : 2

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