



Conservation Area Series, 44

**Faunal Diversity of
Baghmara Reserve Forest
Meghalaya**



ZOOLOGICAL SURVEY OF INDIA

Conservation Area Series, 44

**Faunal Diversity of
Baghmara Reserve Forest
Meghalaya**

Edited by the Director, Zoological Survey of India, Kolkata



**Zoological Survey of India
Kolkata**

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***Fauna of Ranthambore Tiger Reserve
Conservation Area Series***

44

2010

1-99

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FAUNAL DIVERSITY OF BAGHMARA RESERVE FOREST (A PROPOSED WILDLIFE SANCTUARY)—AN OVERVIEW

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INTRODUCTION

Baghmara Reserve Forest (25°10'–25°13' N; 90°35'–90° 42' E) in South Garo Hills district of Meghalaya is a proposed Wildlife sanctuary. Spread over an area of 4429 ha., (map) it lies by the side of Simsang river which is the major river in Garo Hills. It has boundary with Bangladesh on its southern side and is contiguous with Balpakram National Park and Siju Wildlife Sanctuary, thereby forming a complex – the Balpakram Complex. The forest is of Tropical moist deciduous type. Extensive tracts of Garo Hills fall under this type of forests. Major economically important timber species are grown here. Deciduous forests, as a rule, occur at comparatively lower elevations and in less rainfall areas and such forests have a number of evergreen species. Seasonal leaf shedding and recurrent fires and profuse blooming are characteristics of this type of forests. However, they do not have the complexity of organization and a single plant dominance can be clearly seen. *Shorea robusta*, the Sal, is the state's largest single revenue yielding plant. Other tree species of the top canopy are *Tectona grandis*, *Sterculia villosa*, *Lagerstromia paviflora*, *Morus laevigata*, *Artocarpus chapalasha*, *Gmelina arborea* etc. Bamboo appears in comparatively older forests where there are some gaps in the canopy.

Forests in the tropics, particularly moist forests or rain forests are widely held to be the most biologically diverse habitats on earth, therefore demanding conservation. Information on faunal diversity forms the foundation of all types of activities involved in the conservation of biodiversity. The status and distribution of species and habitats are continually changing as are the cost of their conservation and the benefits of their use. Therefore, regular and systematic revision of information and collection of new data are necessary. Further, to manage our biodiversity in a sustainable way, we need to have as accurate as possible an understanding of it as well as its relation to the global pattern. Thus the faunal inventory and reference collections help in classifying known species and describing new species and thus provide material or research base for all kinds of applied biology and as well serve to raise public awareness and interest in the living world. Biodiversity research tend to be greatly restricted when systematic collections are sparse or non-existent. Therefore, it is evident that one important task towards conservation is to assess which elements of the fauna/flora are most at risk of

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extinction. Keeping this in view, the faunal resources of Baghmara Reserve Forest was taken up for taxonomic studies with reference to Plankton, Pisces, Amphibia, Reptilia and Ants, the groups in which expertise is available at North Eastern Regional Centre, Zoological Survey of India, Shillong. In all eight surveys were conducted between August 2002 to January 2006 and a total of 4646 examples and 89 vials of various animal groups as already mentioned were collected and studied. These have resulted in the determination of 12 species of Protozoa; 33 species of Rotifera; 21 species of Cladocera; 38 species of Ants; 74 species of Fishes; 18 species of Amphibia and 16 species of Reptiles.

Baghmara Reserve Forest is rich in biodiversity. The animal of vital importance and protected by law here is the elephant. There are about 110 elephants as per the 2002 census (direct head count). A herd of elephants is a common sight in this Reserve Forest particularly during a night drive. Along with Balpakram National Park, this Reserve Forest forms a corridor for resident and migratory elephants. Other wild fauna include Tiger, Clouded leopard, Bear, Jungle Cat, Civet cat, Himalayan giant squirrel, Flying squirrel, Sambar, Barking deer, Gaur, Serrow, Fruit bats etc. Among the primates, Assamese macaque and Capped langur were observed during survey trips. A number of bird species were observed especially alongside the International border. It is also home to many species of snakes including kraits and vipers. Monitor lizards and turtles are common. There are about 35 human settlements within its boundary that occasionally face man-animal conflict. Vast areas of land within the Reserve Forest are used for Rubber, Coffee and Cashew cultivation.

Among vertebrates, 41 species of fish, 1 species of Amphibia, 3 species of reptiles, 37 species of birds and 30 species of mammals are reported from Baghmara (Fauna of Meghalaya, Vertebrates, ZSI, 1995). The following pages deal with species-wise account of material collected during the present survey trips as well as that of the material collected during earlier surveys. Recorded information on other groups are also incorporated for a comprehensive account and mentioned under APPENDIX (as per report in the *Fauna of Meghalaya*, ZSI, Part 1-10).

Key words

BRF : Baghmara Reserve Forest

IV/ROT/ERS : Invertebrata/Rotifera/Eastern Regional Station

IV/CLA/ERS : Invertebrata/Cladocera/Eastern Regional Station

AI/ : Arthropoda invertebrata/

V/F/ : Vertebrata/ Fishes/

V/A/ : Vertebrata/Amphibia/

VR/ERS/ZSI : Vertebrata/Reptilia/Eastern Regional Station/Zoological Survey of India.

Table -1. Faunal details of the project area.

Taxonomic group	Family	Genera	Species
Testate Amoebae : Protozoa	4	6	12
Rotifera	8	10	33
Cladocera	7	15	21
Insecta : Formicidae	1	23	38
Pisces	20	47	74
Amphibia	4	11	18
Reptilia	8	14	16
Total	52	126	212

TESTATE AMOEBAE (PROTOZOA : SARCOMASTIGOPHORA : RHIZOPODA)

SUMITA SHARMA

Zoological Survey of India, North Eastern Regional Centre, Shillong - 793003

INTRODUCTION

The rhizopods or testate amoebae comprise micro-faunal component of aquatic, semi-aquatic (moss-dwelling) and soil communities. The systematic studies on testaceans from aquatic habitats of India are, however, restricted to the works of Naidu (1966), Mahajan (1971), Nair *et al.* (1971) and Das *et al.* (1993, 2000, 2003, 2004). In addition, Das *et al.* (1995) dealt with their faunal composition in Meghalaya and also examined several collections from water bodies of this state as well as from Baghmara.

The present study on micro-faunal diversity of Rhizopoda, a part of the survey of "Fauna of the Baghmara Reserve Forest", South Garo Hills district of Meghalaya is based on analysis of plankton samples collected from different water bodies located in the study area and deposited in the holdings of Eastern Regional Station, Zoological Survey of India, Shillong. Different taxa were screened and isolated with a Wild-stereoscopic binocular microscope, and were mounted in Polyvinyl alcohol lectophenol mixture. Various species of Rhizopoda were identified following the works of Deflandre (1959) and Chattopadhyay and Das (2003). In addition, the material examined earlier from Baghmara (Das *et al.*, 1995) is also included in this account

SYSTEMATIC ACCOUNT

Superphylum PROTOZOA

Phylum SARCOMASTIGOPHORA

Subphylum SARCODINA

Superclass RHIZOPODA

Class LOBOSEA

Order ARCELLINIDA

Family ARCELLIDAE

1. *Arcella discoides* Ehrenberg, 1843

1843. *Arcella discoides* Ehrenberg, *Abh. Akad. Wiss. Berlin*, p. 40.

Material examined : ERS/ZSI : 2 exs., BRF, 28.04.2003; 1 ex., Gamshing Chiring, BRF, 17.10. 2003; 1 ex., Phanda, BRF, 16.10.2003. 1 ex., Baghmara, 24.03.1991.

Distribution : INDIA : Meghalaya, Arunachal Pradesh, Nagaland, Mizoram, Sikkim, Tripura, West Bengal, Uttranchal and Himachal Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : Widely distributed in N.E. India; common in freshwater ponds and lakes, in bottom ooze. Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

2. *Arcella vulgaris* Ehrenberg, 1832

1832. *Arcella vulgaris* Ehrenberg, *Abh. Akad. Wiss. Berlin*, p. 40.

Material examined : ERS/ZSI: 1 ex., BRF, 28.04.2003; 1 ex., Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Arunachal Pradesh, Nagaland, Sikkim, West Bengal and Himachal Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : New record from Meghalaya.

3. *Lesquerusia spiralis* (Ehrenberg, 1840)

1840. *Diffugia spiralis* Ehrenberg, *Monatsb. Akad. Wiss. Berlin*, p. 199.

Material examined : ERS/ZSI : 1 ex., BRF, 28.04.2003; 1 ex., Phanda, BRF, 16.10. 2003 ; 2 exs., Baghmara, 24.03.1991.

Distribution : INDIA : Meghalaya, Manipur, Andhra Pradesh and West Bengal.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

Family CENTROPYXIDAE

4. *Centropyxis aculeata* (Ehrenberg, 1832)

1832. *Arcella aculeata* Ehrenberg, *Abh. Akad. Wiss. Berlin*, p. 40.

Material examined : ERS/ZSI : 1 ex., BRF, 28.04.2003; 1 ex., Gamshing Chiring, 17.10.2003. 1 ex., Baghmara, 24.03.1991

Distribution : INDIA : Meghalaya Mizoram, Arunachal Pradesh, Tripura, Sikkim, West Bengal, Andhra Pradesh, Orissa, Rajasthan and Himachal Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

5. *Centropyxis ecornis* (Ehrenberg, 1843)

1843. *Arcella ecornis* Ehrenberg, *Abh. Akad. Wiss. Berlin*, p. 368.

Material examined : ERS/ZSI : 1 ex., BRF, 28.04.2003; 1 ex., Phanda, BRF, 16.10.2003. 2 exs., Baghmara, 24.03.1991.

Distribution : INDIA : Meghalaya, Manipur, Mizoram, Arunachal Pradesh, Nagaland, Sikkim, Himachal Pradesh, Uttranchal and West Bengal.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

6. *Centropyxis oblonga* (Deflandre, 1929)

1929. *Centropyxis aculeata* var. *oblonga* Deflandre, *Arch. Protostenkd.*, vol. 67, p. 349.

Material examined : ERS/ZSI : 1 ex., Phanda, BRF, 16.10.2003.

Distribution : INDIA : Meghalaya, Nagaland, Sikkim and Andhra Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : Rare in the examined material. Reported earlier from the bottom ooze of the Rongram river in Meghalaya by Das *et al.* (1995).

7. *Centropyxis spinosa* (Cash and Hopkinson, 1905)

1905. *Centropyxis aculeata* var. *spinosa* Cash and Hopkinson, *The British Freshwater Rhizopoda and Heliozoa*, vol. 1, p.195.

Material examined : ERS/ZSI : 1 ex., Gamshing Chiring, BRF, 17.10.2003; 1 ex., Phanda, BRF, 16.10.2003; 3 exs., Baghmara, 24.03.1991.

Distribution : INDIA : Meghalaya, Manipur, Mizoram, Nagaland, Arunachal Pradesh, Sikkim, West Bengal, Uttranchal and Himachal Pradesh.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

Family DIFFLUGIIDAE

8. *Diffflugia acuminata* Ehrenberg, 1838

1838. *Diffflugia acuminata* Ehrenberg, *Die Infusionsthierchen als Vollkommene Organismen*, Leipzig, p. 131.

Material examined : ERS/ZSI : 2 exs., BRF, 28.04.2003; 2 exs., Baghmara, 24.03.1991.

Distribution : INDIA : Meghalaya, Manipur, West Bengal and Andhra Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

9. *Diffflugia lobostoma* (Leidy, 1879)

1879. *Diffflugia lobostoma* Leidy, *Freshwater Rhizopods of North America*, p. 112.

Material examined : ERS/ZSI : 1 ex., BRF, 28.04.2003; 1 ex., Phanda, BRF, 16.10.2003 ; 1 ex., Baghmara, 24.03.1991.

Distribution : INDIA : Meghalaya, Arunachal Pradesh, Nagaland, Tripura, West Bengal, Rajasthan and Himachal Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

10. *Diffflugia pyriformis* Perty, 1848

1848. *Diffflugia pyriformis* Perty, *Mitthail. Naturf. Gesses. Berg*, p. 168.

Material examined : ERS/ZSI : 1 ex., BRF, 28.04.2003; 1 ex., Gamshing Chiring, BRF, 17.10.2003; 2 exs., Baghmara, 24.03.1991.

Distribution : INDIA : Meghalaya, Manipur, West Bengal and Rajasthan.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995).

Class FILOSEA

Order GROMIDA

Family EUGLYPHIDAE

11. *Euglypha acanthophora* (Ehrenberg, 1842)

1842. *Diffflugia acanthophora* Ehrenberg, *Abh. Akad. Berlin*, p. 413.

Material examined : ERS/ZSI : 1 ex., Phanda, BRF, 16.10.2003.

Distribution : INDIA : Meghalaya, Manipur, Nagaland, West Bengal and Andhra Pradesh.

Remarks : Das *et al.* (1995) reported this species earlier from freshwater habitats of Meghalaya but did not examine any material from Baghmara. Also recorded from Meghalaya as a moss-dwelling rhizopod by Chattopadhyay and Das (2003).

12. *Trinema lineare* Penard, 1890

1890. *Trinema lineare* Penard, *Mem. Soc. Geneve*, 31, p. 187, pl. 11, figs. 5-17.

Material examined : ERS/ZSI : 1 ex., BRF, 28.04.2003 ; 4 exs., Baghmara, 24. 03. 1991.

Distribution : INDIA : Meghalaya, Arunachal Pradesh, Mizoram, Assam, Tripura, West Bengal and Himachal Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Baghmara and Meghalaya by Das *et al.* (1995). Also recorded from Meghalaya as a moss-dwelling rhizopod by Chattopadhyay and Das (2003).

SUMMARY

The rhizopods are often observed in bottom ooze of aquatic ecosystems and also invariably occur as facultative plankton in shallow water bodies and also those with aquatic vegetation. This aspect is endorsed presently as plankton samples collected from different aquatic environs of Baghmara reserve forest revealed 12 species of Rhizopoda belonging to four families and six genera. The documented species comprise a significant component (36.4 %) of the testate amoebae so far known from Meghalaya and also represent a dominant fraction (63.1 %) of the species recorded till date from aquatic biotopes of this state. *Arcella vulgaris* represents a new record from Meghalaya. Of the examined species, nine are also observed by Das *et al.* (1995) in the samples studied from Baghmara reserve forest. The studied material included 10 and 2 species of Lobosea and Filosea, respectively and registered L/F quotient = 5.0 as against its low value (0.77) reported (Chattopadhyay and Das, 2003) from moss-dwelling rhizopods of Meghalaya.

The present species inventory of Rhizopoda, though fairly representative of the available samples, certainly requires up-dating based on specific sampling techniques of the group as well as intensive future seasonal/monthly collections covering the diverse aquatic biotopes of the study area.

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ROTIFERA (ROTIFERA : EUROTATORIA)

SUMITA SHARMA

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INTRODUCTION

Recent reviews on systematic status of the rotifer communities of N.E. India (Sharma and Sharma, 2005) and that of the state of Meghalaya (Sharma and Sharma, 1999) reflect paucity of investigations on ecosystem diversity of this important group of micro-invertebrates. Further, the information on their occurrence and distribution in aquatic biotopes of reserve forests of North East India is completely lacking. The present communication on micro-faunal diversity of Phylum Rotifera, a part of the survey of "Fauna of Baghmara Reserve Forest", South Garo Hills district of Meghalaya, therefore, assumes special interest. Remarks are made on general nature and composition of the rotifer taxocoenosis and on distribution of various taxa.

Plankton samples examined for the present species inventory were collected, with a nylobolt plankton net, from various freshwater biotopes located in the Baghmara reserve forest. The rotifer taxa were screened and isolated, and the permanent slides were made in Polyvinyl-alcohol lectophenol mixture. Various species were identified following the works of Koste (1978), Sharma (1998a), Segers (1995), and Sharma and Sharma (1999, 2000). The system of classification of the Rotifera followed in this account is after Segers (2002).

SYSTEMATIC ACCOUNT

Phylum ROTIFERA

Super class EUROTATORIA

Class MONOGONONTA

Order PLOIMIDA

Family BRACHIONIDAE

1. *Brachionus angularis* Gosse, 1851

1851. *Brachionus angularis* Gosse, Ann. Mag. Nat. Hist. ser. 2, 8, p. 203.

Material examined : 2 exs., Angratoli reserve forest, 31.08.2002; 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Maharashtra, Madhya Pradesh, Delhi, Kashmir, Punjab, Haryana and Chandigarh (U.T).

Elsewhere : COSMOPOLITAN.

Remarks : Not common in the studied material. Occurs relatively widely in lentic environs of Meghalaya (Sharma and Sharma, 1999). This brachionid is also recorded earlier from this state by Patil (1978) and Sharma and Sharma (1990).

2. *Brachionus bidentatus* Anderson, 1889

1889. *Brachionus bidentata* Anderson, *J. Asiatic Soc. Bengal*, **58**, p. 357, pl. 21, fig. 13.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\113, Angratoli reserve forest, 31.08.2002.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Andhra Pradesh, Orissa, Punjab and Haryana.

Elsewhere : PANTROPICAL.

Remarks : This species shows several morphological variants but all the presently examined specimens refer to *B. bidentatus bidentatus*. Common in several water bodies of Meghalaya, reported earlier by Sharma and Sharma (1999).

3. *Brachionus calyciflorus* Pallas, 1766

1766. *Brachionus calyciflorus* Pallas, *Elenchus zoophytorum*, p. 93.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\117), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Maharashtra, Madhya Pradesh, Punjab, Haryana and Chandigarh (U. T.).

Elsewhere : COSMOPOLITAN.

Remarks : *B. calyciflorus* exhibits cyclomorphic variations but the examined specimens represent typical form. Not widely distributed in Meghalaya, recorded only from certain localities of this state by Sharma and Sharma (1999).

4. *Brachionus falcatus* Zacharias, 1898

1898. *Brachionus falcatus* Zacharias, *Forschungsber. Biol. Stn. zu Plön*, **6**, p. 45, taf. IV, fig. 4.

Material examined : 2 exs., (Regd. no. IV\ROT\ERS\81), Angratoli reserve forest, 31. 08. 2002; 1 ex., (Regd. no. IV\ROT\ERS\85), Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Madhya Pradesh, Gujarat, Rajasthan, Kerala, Punjab and Haryana.

Elsewhere : PANTROPICAL.

Remarks : Noticed in several collections. Relatively widely distributed in Meghalaya, recorded earlier from this state by Patil (1978), and Sharma and Sharma (1990, 1999).

5. *Brachionus forficula* Wierzejski, 1891

1891. *Brachionus forficula* Wierzejski, *Bull. Soc. Zool. France*, **16**, p. 51, fig. 3.

Material examined : 1 ex., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Gujarat and Punjab.

Elsewhere : PANTROPICAL.

Remarks : Rare in the examined material. Also reported only from some localities of Meghalaya by Sharma and Sharma (1999).

6. *Plationus patulus* O.F. Muller, 1786

1786. *Brachionus patulus* O.F. Muller, *Zoologie Fanicae prodromus, seu animalium Daniae et Norvegiae*, p. 361, Taf. XLVII, fig. 14.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\ 102), BRF, 28. 04. 2003, 1 ex., (Regd. no. IV\ROT\ERS\104), Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA: Meghalaya, Assam, Tripura, West Bengal, Orissa, Andhra Pradesh, Gujarat, Tamil Nadu, Kerala, Rajasthan, Punjab and Kashmir.

Elsewhre : COSMOPOLITAN.

Remarks: Besides typical form, few specimens belonging to *B. patulus macracanthus* are also noticed presently. Widely distributed in the state of Meghalaya, recorded earlier by Sharma and Sharma (1990, 1999).

7. *Brachionus quadridentatus* Hermann, 1783

1783. *Brachionus quadridentatus* Hermann, *Naturforscher Halle*, **19**, p. 47, pl. 11, Fig. 9.

Material examined : 1 ex., (Regd.no. IV\ROT\ERS\111), BRF, 28. 04. 2003; 5 exs, BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Madhya Pradesh, Kerala, Rajasthan, Punjab and Kashmir.

Elsewhere : COSMOPOLITAN.

Remarks : The examined specimens belong to typical form and *B. quadridentatus* f. *melheni*. Widely distributed in Meghalaya, recorded from several localities by Patil (1978), and Sharma and Sharma (1990, 1999).

8. *Keratella cochlearis* Gosse, 1851

1851. *Anurea cochlearis* Gosse, *Ann. Mag. Nat. Hist. ser. 2*, 8, p. 202.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Kerala, Kashmir, Ladak, Punjab and Rajasthan.

Elsewhere : COSMOPOLITAN.

Remarks : Rare and occurred only in one sample. However, this brachionid is widely distributed in Meghalaya and has been reported earlier by Patil (1978), Sharma and Sharma (1990, 1999). In addition, this planktonic species shows wider distribution in N. E. India (Sharma and Sharma, 2005).

9. *Keratella tropica* (Apstein, 1907)

1907. *Anurea vulga* f. *tropica* Apstein, *Zool. Jb. Abt. Syst.*, 25, p. 210, fig. F.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Bihar, Orissa, Andhra Pradesh, Madhya Pradesh, Kerala, Gujarat, Rajasthan, Punjab, Haryana, Kashmir and Ladak.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence in the examined samples. Recorded from certain localities of Meghalaya by Patil (1978), and Sharma and Sharma (1990, 1999).

10. *Platyias quadricornis* (Ehrenberg, 1832)

1832. *Noteus quadricornis* Ehrenberg, *Abhandl. Akad. Wiss. Berlin* (1831), pl. IV, fig. 5.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\82), Angratoli reserve forest, 31. 08. 2002; 1 ex., (Regd. no. IV\ROT\ERS\97), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Kerala, Rajasthan, Punjab, Haryana, Kashmir and Ladak.

Elsewhere : COSMOPOLITAN.

Remarks : Noticed in several samples. Recorded earlier from Meghalaya by Sharma and Sharma (1990, 1999).

Family MYTILINIDAE

11. *Mytilina ventralis* (Ehrenberg, 1832)

1832. *Salpina ventralis* Ehrenberg, *Abhandl. Akad. Wiss. Berlin*, p. 133, pl. 4, fig. 7.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Gujarat, Madhya Pradesh, Kerala, Punjab, Kashmir, Ladak and Rajasthan.

Elsewhere : COSMOPOLITAN.

Remarks : Not common in the examined collections. Reported so far from Meghalaya by Patil (1978), and Sharma and Sharma (1999).

Family LEPADELLIDAE

12. *Lepadella acuminata* (Ehrenberg, 1834)

1834. *Metopedia acuminata* Ehrenberg, *Dritter Beitrage Folio. Berlin*, p. 210.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Tripura, West Bengal, Orissa, Bihar and Tamil Nadu.

Elsewhere : COSMOPOLITAN.

Remarks : Noticed only in one sample. Reported earlier from Meghalaya by Sharma and Sharma (1987a, 1999).

13. *Lepadella ovalis* (O.F. Müller, 1786)

1786. *Brachionus ovalis* Müller, *Zoologie Fanicae prodromus, seu animalium Daniae et Norvegiae*, p. 345, pl. 141, figs. 1-3.

Material examined : 3 exs., Angratoli reserve forest, 31. 08. 2002; 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura, West Bengal, Orissa, Bihar, Kerala, Punjab, Haryana, Ladak and Kashmir.

Elsewhere : COSMOPOLITAN.

Remarks : Noticed in several samples. Reported earlier from Meghalaya by Sharma and Sharma (1987a, 1999).

14. *Lepadella patella* (O.F. Müller, 1773)

1773. *Brachionus patella* Müller, *Vermeium terrestrium et fluviatilium*, p. 341, pl. 8, figs. 15-29.

Material examined : 2 exs., Angratoli reserve forest, 31. 08. 2002; 3 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Mizoram, Nagaland, Tripura, West Bengal, Orissa, Bihar, Rajasthan, Gujarat, Punjab, Ladak and Kashmir.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Meghalaya by Sharma and Sharma (1987a, 1999).

Family LECANIDAE

15. *Lecane aculeata* (Jakubski, 1912)

1912. *Distyla aculeata* Jakubski, *Zool. Anz.*, **39**, p. 543, figs. 3, 4.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Bihar and Orissa.

Elsewhere : PANTROPICAL.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

16. *Lecane curvicornis* (Murray, 1913)

1913. *Cathypna curvicornis* Murray, *J. Roy. Micro. Soc.*, p. 346-347, pl. XIV, fig. 22.

Material examined: 2 exs., Angratoli reserve forest, 31. 08. 2002; 1 ex., (Reg. no. IV\ROT\ERS\98), BRF, 28. 04. 2003.

Distribution: INDIA : Meghalaya, Assam, Tripura, West Bengal, Bihar, Andhra Pradesh and Madhya Pradesh.

Elsewhere : TROPICOPOLITAN.

Remarks : Noticed only in some samples and examined material belongs to typical form. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

17. *Lecane inermis* (Bryce, 1892)

1892. *Distyla inermis* Bryce, *Sci. Gossip*, **28**, p. 274, text-fig.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\103), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\ROT\ERS\108), BRF, 28.04.2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa and Bihar.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

18. *Lecane leontina* (Turner, 1892)

1892. *Cathypna leontina* Turner, *Bull. Sci. Lab. Denison Univ. Granville, Ohio*, **6**, p. 61, pl. 1, fig. 12.

Material examined : 2 exs., Angratoli reserve forest, 31. 08. 2002; 3 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Madhya Pradesh and Punjab.

Elsewhere : TROPICOPOLITAN.

Remarks : Occurred in several collections. Shows wider distribution in the state of Meghalaya (Sharma, 1987; Sharma and Sharma, 1999).

19. *Lecane luna* (O.F. Müller, 1776)

1776. *Cercaria luna* Müller, *Zoologie Fanicae prodromus, seu animalium Daniae et Norvegiae*, p. 280.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution: INDIA: Meghalaya, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura, West Bengal, Orissa, Bihar, Gujarat, Rajasthan, Punjab, Kashmir and Ladak.

Elsewhere : COSMOPOLITAN.

Remarks : Shows rare occurrence. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

20. *Lecane papuana* (Murray, 1913)

1913. *Cathypna papuana* Murray, *J. Roy. Micro. Soc.*, p. 551, pl. XXII, figs. 2, a-d.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\100), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\ROT\ERS\101), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\ROT\ERS\104), BRF, 28. 4. 2003; 1 ex., (Regd. no. IV\ROT\ERS\110), BRF, 28.04. 2003; 1 ex., (Regd. no. IV\ROT\ERS\112), BRF, 28. 04. 2003;

Distribution : INDIA : Meghalaya, Assam, Manipur, Nagaland, West Bengal, Orissa, Bihar, Tamil Nadu, Delhi, Punjab, Kashmir and Ladak.

Elsewhere : PANTROPICAL.

Remarks : Occurred in several samples. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

21. *Lecane ploenensis* (Voigt, 1902)

1902. *Distyla ploenensis* Voigt, *Zool. Anz.*, **25**, p. 679.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Mizoram, Tripura, West Bengal, Orissa, Bihar, Gujarat and Punjab.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

22. *Lecane ungulata* (Gosse, 1887)

1887. *Cathypna ungulata* Gosse, *J. Roy. Micro. Soc.*, p. 361, pl. VIII, fig. 1.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, Mizoram, Nagaland, West Bengal, Orissa, Bihar, Andhra Pradesh, Gujarat and Punjab.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

23. *Lecane (Monostyla) bulla* (Gosse, 1851)

1851. *Monostyla bulla* Goose, *Ann. Mag. Nat. Hist. ser. 2*, 8, p. 220.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\105), BRF, 28. 04. 2003; 2 exs., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Tripura, Mizoram, Nagaland, Arunachal Pradesh, West Bengal, Orissa, Bihar, Andhra Pradesh, Tamil Nadu, Rajasthan, Gujarat, Punjab and Kashmir.

Elsewhere : COSMOPOLITAN.

Remarks : Occurred in several localities. Widely distributed in Meghalaya (Sharma, 1987; Sharma and Sharma, 1999).

24. *Lecane (Monostyla) closterocerca* (Schmarda, 1859)

1859. *Monostyla closterocerca* Schmarda, *Neue wirbellose Tiere*, p. 59, Taf. XIV, fig. 125.

Material examined : 1 ex., (Regd. no. IV/Rot/ERS/107), BRF, 31. 08. 2002.

Distribution: INDIA : Meghalaya, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura, Orissa, Tamil Nadu, Gujarat, Rajasthan, Punjab, Kashmir and Ladak.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Patil (1978), Sharma (1987) and Sharma and Sharma (1999).

25. *Lecane (Monostyla) lunaris* (Ehrenberg, 1832)

1832. *Lepadella lunaris* Ehrenberg, *Abhandl. Akad. Wiss. Berlin*, p. 127

Material examined : 2 exs., BRF, 28. 04. 2003; 1 ex., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Tripura, Mizoram, Nagaland and Arunachal Pradesh, West Bengal, Orissa, Bihar, Gujarat and Kashmir.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

26. *Lecane (Monostyla) monostyla* (Daday, 1897)

1897. *Diarthra monostyla* Daday, p. 143, *Math.Termész. Ertestiö*, 15, fig. 10.

Material examined : 1 ex., (Regd. no. IV\ROT\ERS\106), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya (New record), Tripura, Assam, Orissa and Kerala.

Elsewhere : COSMOPOLITAN.

Remarks : Rare in the examined collections.

27. *Lecane (Monostyla) quadridentata* (Ehrenberg, 1832)

1832. *Monostyla quadridentata* Ehrenberg, *Abhandl. Akad. Wiss. Berlin* (1831), p. 130.

Material examined : 3 exs., BRF, 28. 04. 2003 ; 1 ex., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Madhya Pradesh, Rajasthan, Tamil Nadu, Punjab, Haryana and Kashmir.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from several localities of Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

28. *Lecane (Monostyla) unguitata* (Fadeev, 1925)

1925. *Monostyla unguitata* Fadeev, *Russ. Hydrobiol. J.*, 4, p.21, pl. 1, fig. 7.

Material examined : 3 exs., BRF, 28.04.2003; 2 exs., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Nagaland, Tripura, West Bengal, Orissa, Bihar, Gujarat and Punjab.

Elsewhere : PALAEOTROPICAL.

Remarks : Reported from Meghalaya by Sharma (1987) and Sharma and Sharma (1999).

Family SCARIDIIDAE

29. *Scaridium longicaudum* (O.F. Müller, 1786)

1786. *Trichoda longicaudum* O.F.Müller, *Zoologie Fanicae prodromus, seu animalium Daniae et Norvegiae*, p. 216, taf. 31, figs. 8-10.

Material examined : 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, Mizoram, Nagaland, West Bengal, Orissa, Bihar, Punjab, Tamil Nadu and Gujarat.

Elsewhere : COSMOPOLITAN.

Remarks : Reported from Meghalaya by Sharma and Sharma (1987b, 1999).

Family TRICHOCERCIDAE

30. *Trichocerca similis* (Wierzejski, 1893)

1893. *Coelopus similis* Wierzejski, *Bull. Soc. Zool. France*, **16**, p. 406.

Material examined: 2 exs., BRF, 28. 04. 2003 ; 2 exs., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Tamil Nadu and Gujarat.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from Meghalaya by Sharma and Sharma (1999).

Order GNESIOTROCHA

Family FILINIIDAE

31. *Filinia longiseta* (Ehrenberg, 1834)

1834. *Triarthra longiseta* Ehrenberg, *Dritter Beitrage Folio. Berlin*, p. 222, pl. 8, fig. 1.

Material examined : 3 exs., BRF, 28. 04. 2003; 2 exs., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Mizoram, Tripura, West Bengal, Bihar, Orissa, Madhya Pradesh, Gujarat, Rajasthan, Punjab and Haryana.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Patil (1978) and Sharma and Sharma (1999).

Family TESTUDINELLIDAE

32. *Testudinella emarginula* (Stenroos, 1898)

1898. *Pterodina emarginula* Stenroos, *Acta Soc. Fauna et Flora Fennica*, **17**, p. 168, Taf. II, figs. 31, 32.

Material examined : 2 exs., Angratoli reserve forest, 31. 08. 2002; 2 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Mizoram, Tripura, West Bengal, Orissa and Bihar.

Elsewhere : COSMOPOLITAN.

Remarks : Shows restricted occurrence. Reported earlier from Meghalaya by Sharma (1990) and Sharma and Sharma (1999).

33. *Testudinella patina* (Hermann, 1783)

1783. *Brachionus patina* Hermann, *Naturforscher Halle*, **19**, p. 48, Taf. 2, Fig. 10.

Material examined : 3 exs., Angratoli reserve forest, 31.08. 2002 ; 5 exs., BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Mizoram, Tripura, West Bengal, Orissa, Bihar, Andhra Pradesh, Tamil Nadu, Gujarat, Punjab and Kashmir.

Elsewhere : COSMOPOLITAN.

Remarks : Occurred in several samples. Reported earlier from Meghalaya by Sharma (1990) and Sharma and Sharma (1999).

SUMMARY

Thirty three species of Phylum Rotifera belonging to eight Eurotatorien families and ten genera are documented in the present faunal survey. *Lecane (Monostyla) monostyla* is a new record from Meghalaya while the rest of the species are reported earlier from this state by Sharma and Sharma (1999). The documented species exclusively represent the monogonont rotifers while examples of the Bdelloidea are missing.

Lecanidae (14 species) and Brachionidae (10 species) comprise distinctly dominant qualitative component (72.7%) of the reported species. Two tropic-centered genera namely *Lecane* and *Brachionus*, together, mainly contribute (63.6%) to species richness of the studied rotifer communities. Besides, the analysed collections are characterized by greater diversity (42.4 %) and frequent occurrence of the species of the former genus. The stated salient features impart a general "tropical character" to the examined taxocoenosis. This generalization is in conformity with identical reports from other tropical rotifer faunas (Green, 1972; Fernando, 1980; Dussart *et al.*, 1984; Sharma, 1998b). On the other hand, rare and restricted distribution of several species of *Brachionus* is rather misleading. This aspect may, however, be attributed to general paucity of typical limnetic conditions in the sampled aquatic ecosystems due to shallow as well as ephemeral nature of a number of these water bodies. The stated features also affirm greater diversity of periphytic rotifers and distinct paucity of planktonic taxa.

Cosmopolitan elements (23 species) distinctly out-number other reported species. and comprise the most dominant component (69.7%). Tropicopolitan species comprise a sub-dominant fraction (18.6%) of the documented species. In addition, the studied collections include three Pantropical and one Palaeotropical species. In general, the present species inventory of Rotifera, though fairly representative of the available samples, certainly requires up-dating based particularly on intensive future seasonal/monthly collections covering the possible diverse aquatic biotopes.

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CLADOCERA (CRUSTACEA : BRANCHIOPODA)

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INTRODUCTION

The systematic studies on Freshwater Cladocera of India were initiated by Baird (1860). Since then these micro-crustaceans have been examined from scattered localities from different states of this country (Sharma and Michael, 1987; Michael and Sharma, 1988; Sharma, 1991). The earlier contributions mainly deal with α -taxonomy of the group while investigations on their ecosystem diversity are still scanty. This statement also holds true to the cladoceran fauna of Meghalaya (Sharma and Sharma, 1999) as well as that of N.E. India. Further, no information is so far available on occurrence and distribution of this important group of fish-food organisms in aquatic biotopes of reserve forests of N.E. region.

The present study on micro-faunal diversity of Cladocera, a part of the survey of "Fauna of the Baghmara Reserve Forest", South Garo Hills district of Meghalaya assumes special interest in view of the stated lacunae. Plankton samples collected with a nylobolt plankton net from different water bodies located in the study area were analyzed for the present species inventory. The cladoceran taxa were screened and isolated with a Wild-stereoscopic binocular microscope. Various species and their disarticulated appendages were mounted in Polyvinyl alcohol-lectophenol mixture. The details of head pores and their arrangements in the Chydorids were studied following the technique given by Megard (1965). Various species were identified following the works of Smirnov (1971, 1974, 1996), and Michael and Sharma (1988). The system of classification followed in this account is after Sharma (2001). Remarks are made on general nature and composition of the studied fauna and on distribution of various taxa.

SYSTEMATIC ACCOUNT

Superclass CRUSTACEA

Class BRANCHIOPODA

Superorder CLADOCERA (*s. str.*)

Order CTENOPODA

Family SIDIDAE

1. *Pseudosida bidentata* Herrick, 1884

1884. *Pseudosida bidentata* Herrick, *Geol. & Nat. Hist. Survey Minnesota, Annual Report*, 12, p. 20, pl. K, Fig. 9.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\120), BRF, 28.0 4. 2003.

Distribution : INDIA : Meghalaya, Rajasthan, Tamil Nadu and Kerala.

Elsewhere : Many parts of TROPICS and NEAR TROPICS.

Remarks : Rare in the examined material. Reported earlier from Meghalaya by Sharma and Sharma (1999).

2. *Diaphanosoma excisum* Sars, 1885

1885. *Diaphanosoma excisum* Sars, *Norske. Vidensk. Selsk. Forhandl. Christiana*, **8**, p. 13-18, pl. 2, figs. 1-3.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\106), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\CLA\ERS\110), Gamsing Chiring, BRF, 17. 10. 2003; 2 exs., (Regd. no. IV\CLA\ERS\126), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, West Bengal, Bihar, Rajasthan and Kerala.

Elsewhere : TROPICS AND SUB-TROPICS.

Remarks : Relatively common in the examined samples. Reported earlier from this state by Sharma and Sharma (1999).

3. *Diaphanosoma sarsi* Richard, 1894

1894. *Diaphanosoma sarsi* Richard, *Revue Biol. Nord. France*, **6**, p. 365, p. 15, figs. 1-8.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\95), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, West Bengal, Bihar, Uttar Pradesh, Rajasthan, Gujarat, Kerala and little Andaman.

Elsewhere : COSMOTROPICAL.

Remarks : Noticed only in a few samples. Recorded earlier from Meghalaya by Patil (1976), Biswas (1980) and Sharma and Sharma (1999).

Order ANOMOPODA

Family DAPHNIIDAE

4. *Ceriodaphnia cornuta* Sars, 1885

1885. *Ceriodaphnia cornuta* Sars, *Norske. Vidensk. Selsk. Forhandl. Christiana*, **8**, p. 26-28, pl. 5, figs. 1-3.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\121), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Bihar, Punjab, Haryana, Himachal Pradesh, Rajasthan, Madhya Pradesh, Tamil Nadu, Kerala and little Andaman.

Elsewhere : COSMOTROPICAL.

Remarks : This planktonic species is reported so far from Meghalaya by Patil (1976) and Sharma and Sharma (1999).

5. *Scapholeberis kingi* Sars, 1903

1903. *Scapholeberis kingi* Sars, *Arch. Math. Nat.*, **25**, p. 8-10, pl. I, Figs. 2, 2 a-c.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\122), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\CLA\ERS\115), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, West Bengal, Kashmir, Rajasthan and Tamil Nadu.

Elsewhere : AFRICA, AUSTRALIA, NORTH AMERICA, GERMANY AND SOUTH ASIA.

Remarks : Relatively common in the examined samples. Reported earlier from this state by Patil (1976), Biswas (1980), Michael and Sharma (1988) and Sharma and Sharma (1999).

6. *Simocephalus acutirostratus* (King, 1853)

1853. *Daphnia elizabethae* var. *acutirostrata* King, *Pap. Proc. R. Soc. Van Diemensland*, **2**, p. 254, pl. VI.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\123), BRF, 28.04. 2003.

Distribution : INDIA : Meghalaya, Assam, West Bengal, Bihar, Maharashtra and Tamil Nadu.

Elsewhere : Australia, Philippines, and Sri Lanka.

Remarks : Rare in the examined material. Reported earlier from this state by Sharma and Sharma (1999).

7. *Simocephalus vetulus* (O. F. Müller, 1776)

1776. *Daphnia vetula* O.F. Müller, *Zoologie Fanicae prodromus, seu animalium Daniae et Norvegiae*, p. 199.

Material examined : 2 exs., BRF, 28. 04. 2003 ; 1 ex., BRF, 16. 10. 2003; 1 ex., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Tripura, Nagaland, Bihar, Uttar Pradesh, Madhya Pradesh, Punjab, Kashmir, Rajasthan, Karnataka and Tamil Nadu.

Elsewhere : COSMOPOLITAN.

Remarks : Relatively common in occurrence. Reported earlier by Patil (1976), Biswas (1980) and Sharma and Sharma (1999).

Family BOSMINIDAE

8. *Bosmina longirostris* (O.F.Müller, 1785)

1785. *Lynceus longirostris* O.F. Müller, *Entomostraca seu Insecta Testacea*, p. 76, tab. 10, figs. 7-8

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\111), BRF, 28. 4. 2003; 1 ex., (Regd. no. IV\CLA\ERS\116), Gamshing Chiring, BRF, 17. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Orissa, Bihar, Kashmir and Madhya Pradesh.

Elsewhere : COSMOPOLITAN.

Remarks : Not common in the present study. Reported earlier from Meghalaya by Patil (1976), Biswas (1980), Michael and Sharma (1988) and Sharma and Sharma (1999).

Family MOINIDAE

9. *Moina micrura* Kurz, 1874

1874. *Moina micrura* Kurz, *Sitz. Acad. Wiss. Wein Math. Natur.*, **69**, p. 13-15, pl. I, fig. 1

Material examined : 1 ex., BRF, 28. 04. 2003; 1 ex., Phanda, BRF, 16. 10. 2003.

Distribution : INDIA: Meghalaya, Assam, West Bengal, Bihar, Punjab, Haryana, Rajasthan, Nilgiri Hills, Tamil Nadu and little Andaman.

Elsewhere : Apparently Cosmopolitan.

Remarks : Not common in the examined material. Reported earlier from this state by Sharma and Sharma (1999).

Family MACROTHRICIDAE

10. *Macrothrix laticornis* (Jurine, 1820)

1820. *Monoculus laticornis* Jurine, *Histoire des Monocles, qui se trouvent aux de Geneve*, p. 151.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\83), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\CLA\ERS\96), Gamshing Chiring, BRF, 17. 10. 2003 ; 2 exs., (Regd. no. IV\CLA\ERS\108), Phanda, BRF, 16. 10. 2003; 2 exs., Angratoli Reserve Forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Manipur, Mizoram, Tripura, West Bengal, Bihar, Rajasthan, Kerala and little Andamans.

Elsewhere : COSMOTROPICAL.

Remarks : Noticed only in some collections. Reported earlier from this state by Sharma and Sharma (1999).

11. *Macrothrix triserialis* (Brady, 1886)

1886. *Macrothrix triserialis* Brady, *J. Linn. Soc. Zool.*, **16**, p. 295, pl. 37, figs. 16-20.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\136), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, West Bengal, Bihar, Rajasthan, Kerala and little Andaman.

Elsewhere : COSMOTROPICAL.

Remarks : Noticed only in some collections. Reported earlier from this state by Biswas (1980) as *Macrothrix chevreuxi* and also by Sharma and Sharma (1999).

Family ILYOCRYPTIDAE

12. *Ilyocryptus spinifer* Herrick, 1882

1882. *Ilyocryptus spinifer* Herrick, *Geol. & Nat. Hist. Survey Minnesota, Annual Report*, **10**, p. 39-41, pl. 8, figs. 1-5 pl. 9, figs. 1-3.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\131), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, West Bengal, Rajasthan, Kerala and little Andaman.

Elsewhere : PANTROPICAL, also recorded from USA, CHINA, AUSTRALIA AND CUBA.

Remarks : This benthic cladoceran is rare in the examined material. Also reported earlier from this state by Patil (1976), Biswas (1980) and Sharma and Sharma (1999).

Family CHYDORIDAE

Subfamily CHYDORINAE

13. *Alonella excisa* (Fischer, 1854)

1854. *Lynceus excisus* Fischer, *Bull. Soc. Imp. Nat. Mosco*, **27**, p. 428, pl. 3, figs. 11-14.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\117), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Manipur, Mizoram, Nagaland, Tripura, West Bengal, Bihar, Rajasthan, Kerala, Orissa, Uttranchal, Madhya Pradesh and Tamil Nadu.

Elsewhere : COSMOPOLITAN.

Remarks : Rare in the examined material. Recorded earlier from this state by Sharma and Sharma (1999).

14. *Chydorus sphaericus* (O. F. Müller, 1776)

1776. *Lynceus sphaericus* O.F. Müller, *Zoologie Fanicae prodromus, seu animalium Daniae et Norvegiae*, p. 119.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\112), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\CLA\ERS\113), Gamshing Chiring, BRF, 17.10.2003; 2 exs., (Regd.

no. IV\CLA\ERS\124), Phanda, BRF, 16. 10. 2003; 2 exs., Angratoli reserve forest, 31. 08. 2002.

Distribution : INDIA : Meghalaya, Assam, Manipur, Tripura, West Bengal, Kashmir, Ladak, Uttar Pradesh and Nilgiri Hills in South India.

Elsewhere : COSMOPOLITAN.

Remarks : Relatively common in the examined collections. Reported earlier by Patil (1976), Biswas (1980), Michael and Sharma (1988) and Sharma and Sharma (1999).

15. *Ephemeroporus barroisi* (Richard, 1894)

1894. *Pleuroxus barroisi* Richard, *Revue Biol. Nord. France*, **6**, p. 367, figs. 9-12.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\118), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Bihar, Orissa, Gujarat, Tamil Nadu and Kerala

Elsewhere : COSMOTROPICAL.

Remarks : Noticed in few collections. Reported earlier from this state by Sharma and Sharma (1999).

16. *Pseudochydorus globosus* (Baird, 1843)

1843. *Chydorus globosus* Baird, *Ann. Mag. Nat. Hist.*, **68**, p. 90, pl. II, figs. 1-4

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\107), BRF, 28. 04. 2003.

Distribution : INDIA: Meghalaya, West Bengal, Rajasthan and Tamil Nadu.

Elsewhere : HOLARCTIC, ETHIOPIAN, INDO-MALAYAN, AUSTRALIAN regions and EUROPEAN USSR.

Remarks : Reported earlier from this state by Patil (1976), Biswas (1980), Michael and Sharma (1988) and Sharma and Sharma (1999).

Subfamily ALONINAE

17. *Acroperus harpae* (Baird, 1834)

1834. *Lynceus harpae* Baird, *Hist. Berwicksh. Nat.Club*, p. 100, pl. II, fig. 17.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\106), BRF, 28. 04. 2003; 1 ex., (Regd. no. IV\CLA\ERS\110), Gamshing Chiring, BRF, 17. 10. 2003, 2 exs., (Regd. no. IV\CLA\ERS\126), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Kashmir and Tamil Nadu.

Elsewhere : COSMOPOLITAN.

Remarks : Reported earlier from this state by Patil (1976), Biswas (1980), Michael and Sharma (1988) and Sharma and Sharma (1999).

18. *Alona costata* Sars, 1862

1862. *Alona costata* Sars, *Forhandl. Vidensk. Selesk. Christiana*, p. 286.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\119), BRF, 28. 04. 2003; 1 ex., Regd. No. IV\CLA\ERS\125, Gamshing Chiring, BRF, 17. 10. 2003; 2 exs., (Regd. No. IV\CLA\ERS\128), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, West Bengal, Himachal Pradesh, Uttar Pradesh and Tamil Nadu.

Elsewhere : Holarctic, Ethiopian, Indo-Malayan and Neotropical regions.

Remarks : Shows relatively common occurrence. Reported earlier from this state by Sharma and Sharma, 1999).

19. *Alona quadrangularis* (O.F. Müller, 1785)

1785. *Lynceus quadrangularis* O.F. Müller, *Entomostraca seu Insecta Testacea*, p. 72-73, pl. IX, figs. 1-3.

Material examined : 2 exs., BRF, 28. 4. 2003; 1 ex., Gamshing Chiring, BRF, 17. 10. 2003; 1 ex., Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal and South India.

Elsewhere : Holarctic, Ethiopian, Indo-Malayan and Neotropical regions.

Remarks : Relatively common in occurrence. Reported earlier from this state by Biswas (1980) and Sharma and Sharma (1999).

20. *Alona rectangula* Sars, 1862

1862. *Alona rectangula* Sars, 1862, *Forhandl. Vidensk. Selesk. Christiana*, p. 160.

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\86), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Kashmir, Ladak, Gujarat and Rajasthan.

Elsewhere : Apparently cosmopolitan.

Remarks: rare in the examined material. Reported earlier from this state by Biswas (1980) and Sharma and Sharma (1999).

21. *Karualona karua* (King, 1853)

1853. *Alona karua* King, *Pap. Proc. R. Soc. Van Diemansland*, 2, p. 260, pl. VIII

Material examined : 1 ex., (Regd. no. IV\CLA\ERS\85), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, Kashmir, West Bengal, Gujarat, Rajasthan, Tamil Nadu, Kerala and little Andaman.

Elsewhere : COSMOPOLITAN between 40° latitude North and South, also reported from USSR and Central Asia.

Remarks : Rare in the examined material. Reported earlier from Meghalaya by Sharma and Sharma (1999).

SUMMARY

The systematic studies on Cladoceran fauna of Meghalaya began in the last quarter of 20th century. Initial works of Patil (1976) and Biswas (1980) resulted in the report of 21 valid species. The fauna volume on Indian Cladocera (Sharma and Michael, 1988) included only 5 species from Meghalaya while comprehensive account by Sharma and Sharma (1999) dealt with 41 cladoceran species from this state. Interestingly, 21 species documented from aquatic environs of the Baghmara Reserve Forest exhibit fairly rich qualitative diversity of these micro-crustaceans. Further, the reported species comprise a significant fraction (51.2%) of the fauna of Meghalaya.

The examined collections are characterized by rich higher diversity of the group and include members of all seven families of Cladocera known from inland waters of India. The Ctenopoda belong to one family i.e., Sididae while Anomopoda are represented by all the known families (Daphniidae-Bosminidae-Moinidae-macrothricidae-Ilyocryptidae-Chydoridae). The rich generic diversity is yet another salient feature of the present investigations. This statement is supported by the fact and out of 21 genera recorded so far from the state of Meghalaya (Sharma and Sharma, 1999), 15 genera are documented from the Baghmara Reserve Forest.

The studied fauna exhibits "tropical character" with qualitative dominance of Cosmopolitan (42.8 %) species and is followed by Cosmotropical (23.8%) > Pantropical (14.3 %) elements. In addition, three species namely *Alona costata*, *A. quadrangularis* and *Pseudochydorus globosus* can not be assigned to any particular category though their distributional records refer to the Holarctic, Ethiopian, Indian and Neotropical regions. Further, *Simocephalus acutirostratus* has confirmed reports from Australia, Philippines, India and Sri Lanka and thus is apparently a biogeographically interesting element. Amongst the reported species, *Pseudosida bidentata* and *Pseudochydorus globosus* are examples of regional distributional interest in the Indian fauna.

The present observations are characterized by distinct dominance of the littoral/epiphytic members of the Chydoridae (42.8%) and rare or restricted occurrence of planktonic cladocerans particularly belonging to *Diaphanosoma*, *Daphnia*, *Ceriodaphnia*, *Scapholeberis* and *Moina* in the examined collections. This aspect may be attributed to general paucity of typical limnetic conditions in the sampled aquatic ecosystems due to shallow as well as ephemeral nature of a number of these water bodies. The stated generalization also affirms the authors remarks based on the study of composition of the rotifer communities of the Baghmara Reserve Forest.

In general, the present species inventory of Cladocera, though fairly representative of the available samples, certainly requires up-dating based particularly on intensive future seasonal/monthly collections covering the possible diverse aquatic biotopes of the study area.

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INSECTA : HYMENOPTERA : FORMICIDAE

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INTRODUCTION

Ants form a single large family-the Formicidae. A total of 38 species of ants collected from the Baghmara Reserve Forest are reported here. In the systematic account that follows, only original references are given. For various synonyms see Bolton (1995).

SYSTEMATIC ACCOUNT

Phylum ARTHROPODA

Class INSECTA

Order HYMENOPTERA

Family FORMICIDAE

Subfamily PONERINAE

1. *Diacamma assamense* Forel

1900. *Diacamma assamensis* Forel, *J. Bombay nat. Hist. Soc.*, **13** : 319.

Material examined : 1 ex., (Regd. no. A1/13076), BRF, 28. 04. 2003.

Distribution : INDIA : Assam, Meghalaya.

Elsewhere : MYANMAR.

2. *Diacamma rugosum* (Le Guillou)

1842. *Ponera rugosa* Le Guillou, *Annals de la Societe Entomologique de France*, **10** : 318.

Material examined : 1 ex., (Reg. no. A1/13064), Meialla village, BRF, 28. 04. 2003.

Distribution : INDIA : Assam, Meghalaya, Karnataka, Maharashtra, Orissa, West Bengal.

Elsewhere : MYANMAR; SRI LANKA.

3. *Leptogenys processionalis* (Jerdon)

1851. *Ponera processionalis* Jerdon, *Madr. J. Lit. Sc.*, **17** : 118.

Material examined : 1 ex., (Regd. no. A1/13084), BRF, 30.08.2002.

Distribution : INDIA : Meghalaya, Kerala, Tamil Nadu.

Elsewhere : SRI LANKA.

4. *Odontoponera transversa* (F. Smith)

1857. *Ponera transversa* F. Smith, *J. Proc. Linn. Soc. Zool.* London, **2** : 68.

Material examined : 1 ex., (Regd. no. A1/13074), BRF, 28. 04. 2003.

Distribution : INDIA : Throughout India.

5. *Pachycondyla luteipes* (Mayr)

1862. *Ponera luteipes* Mayr, *Verh. Zool.-bot. Ges. Wien.*, **12** : 722.

Material examined : 1 ex., (Regd. no. A1/13077), BRF, 28.04.2003.

Distribution : INDIA: Throughout India.

Elsewhere : MYANMAR; SRI LANKA; MALAYA.

Subfamily PSEUDOMYRMECINAE

6. *Tetraponera aitkenii* (Forel)

1902. *Sima aitkenii* Forel, *Rev. Suisse. Zool.*, **10** : 245.

Material examined : 1 ex., (Regd. no. A1/13085), BRF, 28. 04. 2003.

Distribution : INDIA: Meghalaya, Karnataka.

Elsewhere : SRI LANKA.

7. *Tetraponera rufonigra* (Jerdon)

1851. *Eciton rufonigrum* Jerdon, *Madr. J. Lit. Sc.*, **17** : 111.

Material examined : 1 ex., (Regd. no. A1/13075), BRF, 28.04.2003.

Distribution : INDIA: Throught India.

Elsewhere : CAMBODIA; CHINA; JAVA; MYANMAR; SINGAPORE; SRI LANKA; SUMATRA.

Subfamily MYRMICINAE

8. *Cataulacus taprobanae* F. Smith

1853. *Cataulacus taprobanae* F. Smith, *Trans. Ent. Soc.* London, **2** : 225.

Material examined : 1 ex., (Regd. no. A1/13091), Rangdop Ram, BRF, 5. 08. 2003.

Distribution : INDIA : Assam, Meghalaya, Kerala, Maharashtra, Sikkim, West Bengal, Western India.

Elsewhere : MYANMAR; SRI LANKA; SUMATRA.

9. *Crematogaster hodgsoni* Forel

1902. *Crematogaster hodgsoni* Forel, *Rev. Suisse. Zool.*, **10** : 204.

Material examined : 1 ex., (Regd. no. A1/13083), BRF, 30. 08. 2002.

Distribution : INDIA : Meghalaya.

Elsewhere : MYANMAR; TENASSERIM.

10. *Crematogaster* sp.

Material examined : 1 ex., (Regd. no. A1/13092), Rangdop Ram, BRF, 05.08.2003 ; 1 ex., (Reg. no. A1/13078), Rangdop Ram, BRF, 05. 08. 2003.

11. *Lophomyrmex bedoti* Emery

1893. *Lophomyrmex bedoti* Emery, *Rev. Suisse. Zool.*, **1** : 192.

Material examined : 1 ex., (Regd. no. A1/13060), Rangdop Ram, BRF, 05.08.2003.

Distribution : INDIA : Meghalaya.

Elsewhere : MYANMAR; SUMATRA.

12. *Lophomyrmex quadrispinosus* (Jerdon)

1851. *Oecodoma quadrispinosus* Jerdon, *Madr. J. Lit. Sc.*, **17** : 3.

Material examined : 1 ex., (Regd. no. A1/13080), BRF, 28.04. 2003.

Distribution : INDIA : Meghalaya, Karnataka, Kerala, Orissa, Sikkim, Uttar Pradesh, West Bengal.

13. *Meranoplus bicolor* (Guerin–Meneville)

1844. *Cryptocerus bicolor* Guerin-Meneville, *Cuv. Iconogr. Regn. Anim.Ins.*, **3** : 425.

Material examined : 1 ex., (Regd. no. A1/13063), Meialla village, BRF, 25. 04. 2003.

Distribution : INDIA : Throughout India.

Elsewhere : MALAYA; MYANMAR.

14. *Meranoplus laeiventris* Emery

1889. *Meranoplus laeiventris* Emery, *Ann. Mus. Civ. Stor. Nat. Genova.*, **27** : 506.

Material examined : 1 ex., (Regd. no. A1/13086), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya.

Elsewhere : MYANMAR.

15. *Meranoplus rothneyi* Forel

1902. *Meranoplus rothneyi* Forel, *Rev. Suisse. Zool.*, **10** : 241.

Material examined : 1 ex., (Regd. no. A1/13067), Meialla village, BRF, 05. 04. 2003.

Distribution : INDIA : Meghalaya, Kerala.

Elsewhere : CHINA.

16. *Monomorium* sp.

Material examined : 1 ex., (Regd. no. A1/13069), Meialla village, BRF, 25. 04. 2003.

17. *Pheidole* sp.

Material examined : 1 ex., (Regd. no. A1/13066), Meialla village, BRF, 25. 04. 2003.

18. *Pheidologeton affinis* (Jerdon)

1851. *Oecodoma affinis* Jerdon, *Madr. J. Lit. Sc.*, **17** : 110.

Material examined : 1 ex., (Regd. no. A1/13073), Meialla village, 25. 04. 2003.

Distribution : INDIA : Assam, Meghalaya, Kerala, Maharashtra, West Bengal.

Elsewhere : MYANMAR; SRI LANKA; TENASSERIM.

19. *Solenopsis geminata* (Fabricius)

1804. *Atta geminata* Fabricius, *Systema Piezatorum* : 423

Material examined : 1 ex., (Regd. no. A1/13065), Meialla village, BRF, 25. 04. 2003.

Distribution : INDIA : Throughout India.

20. *Tetramorium* sp.

Material examined : 1 ex., (Regd. no. A1/13068), Meialla village, BRF, 25. 04. 2003.

Subfamily DOLICHODERINAE

21. *Liometopum lindgreeni* Forel

1902. *Liometopum lindgreeni* Forel, *Ann. Soc. Ent. Belg.*, **46** : 293.

Material examined : 1 ex., (Regd. no. A1/13093), Rangdop Ram, BRF, 05. 08. 2003.

Distribution : INDIA : Assam, Meghalaya.

Elsewhere : MYANMAR.

22. *Tapinoma indicum* Forel

1895. *Tapinoma indicum* Forel, *J. Bombay nat. Hist. Soc.*, **9** : 472.

Material examined : 1 ex., (Regd. no. A1/13057), Rama village, BRF, 08. 08. 2003.

Distribution : INDIA : Throughout India.

23. *Dolichoderus* sp.

Material examined : 1 ex., (Regd. no. A1/13061), Rangdop Ram, BRF, 05. 08. 2003.

Subfamily FORMICINAE

24. *Anoplolepis gracilipes* (F. Smith)

1857. *Formica gracilipes* F. Smith, *J. Proc. Linn. Soc. London*, **2** : 55.

Material examined : 1 ex., (Regd. no. A1/13094), Meialla village, BRF, 25. 04. 2003.

Distribution : INDIA : Throughout India.

Elsewhere : MYANMAR; SRI LANKA.

25. *Camponotus angusticollis* (Jerdon)

1851. *Formica angusticollis* Jerdon, *Madr. J. Lit. Sc.*, **12** : 120.

Material examined : 1 ex., (Regd. no. A1/13082), BRF, 30.08. 2002.

Distribution : INDIA : Assam, Meghalaya.

Elsewhere : MYANMAR.

26. *Camponotus compressus* (Fabricius)

1787. *Formica compressus* Fabricius, *Mantissa Insectorum*, **1** : 307.

Material examined : 1 ex., (Regd. no. A1/13056), Rama village, BRF, 08. 08. 2003.

Distribution : INDIA : Assam, Meghalaya.

Elsewhere : SOUTHERN INDIA; AFRICA; ARABIA; BORNEO; MYANMAR; PHILIPPINES; RUSSIA; SRI LANKA.

27. *Camponotus rufoglaucus* (Jerdon)

1851. *Formica rufoglaucus* Jerdon, *Madr. J. Lit. Sc.*, 12 : 124.

Material examined : 1 ex., (Regd. no. A1/13087), BRF, 30. 08. 2002.

Distribution : INDIA : Assam, Meghalaya, Delhi, Central India, Kerala.

Elsewhere : MYANMAR; SRI LANKA.

28. *Camponotus sericeus* (Fabricius)

1798. *Formica sericea* Fabricius, *Supplementum Entomologiae Systematicae.*, 279.

Material examined : 1 ex., (Regd. no. A1/13071), Meialla village, BRF, 25. 04. 2003.

Distribution : INDIA : Throughout India.

Elsewhere : AFRICA; MYANMAR; SRI LANKA.

29. *Camponotus* sp.

Material examined : 1 ex., (Regd. no. A1/13078), BRF, 28. 04. 2003.

30. *Colobopsis pubescens* Mayr

1862. *Colobopsis pubescens* Mayr, *Verh. Zoo. Bot. Gesell. Wien.*, 12 : 691.

Material examined : 1 ex., (Regd. no. 13081), BRF, 30. 08. 2002.

Distribution : INDIA : Meghalaya

Elsewhere : JAVA; SUMATRA; PHILIPPINES.

31. *Oecophylla smaragdina* Fabricius

1775. *Formica smaragdina* Fabricius, *Syst. Ent.*, 828.

Material examined : 1 ex., (Regd. no. A1/13058), Rangdop Ram, BRF, 05. 08. 2003.

Distribution : INDIA: Throughout India.

Elsewhere : INDIA; CHINA; MYANMAR; NEW BRITAIN; SRI LANKA.

32. *Paratrechina longicornis* (Latreille)

1802. *Formica longicornis* Latreille, *Nat. Hist. Fourmis* : 113.

Material examined : 1 ex., (Regd. no. A1/13062), Meialla village, BRF, 25. 04. 2003.

Distribution : INDIA : Throughout India.

33. *Paratrechina* sp.

Material examined : 1 ex., (Regd. no. A1/13070), Meialla village, BRF, 25. 04. 2003.

34. *Polyrhachis bicolor* F. Smith

1858. *Polyrhachis bicolor* F. Smith, *Cat. Hym. Br. Mus.*, 6 : 65.

Material examined : 1 ex., (Regd. no. A1/13089), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, West Bengal.

Elsewhere : MYANMAR; PHILIPPINES.

35. *Polyrhachis dives* Fr. Smith

1858. *Polyrhachis dives* Fr. Smith, *J. Proc. Linn. Soc. London. Zool.*, 2 : 64.

Material examined : 1 ex., (Regd. no. A1/13072), Meialla village, BRF, 25. 04. 2003.

Distribution : INDIA : Meghalaya.

Elsewhere : BORNEO; CHINA; FORMOSA; JAVA; INDO-CHINA; JAPAN; MALAYA PENINSULA; NEW GUINEA; PHILIPPINES; SUMATRA.

36. *Polyrhachis laevissima* Fr. Smith

1858. *Polyrhachis laevissima* Fr. Smith, *Cat. Hym. Brit. Mus.*, 6 : 64.

Material examined : 1 ex., (Regd. no. A1/13055), Rama village, BRF, 08. 08. 2003.

Distribution : INDIA : Assam, Meghalaya, Orissa, West Bengal.

Elsewhere : BORNEO; JAVA; MYANMAR; SIAM; SINGAPORE.

37. *Polyrhachis rastellata* (Latreille)

1802. *Formica rastellata* Latreille, *Hist. Nat. Fourm.*, 130.

Material examined : 1 ex., (Regd. no. A1/13059), Rangdop Ram, BRF, 05. 08. 2003.

Distribution : INDIA : Meghalaya, Karnataka, Maharashtra.

Elsewhere : BORNEO; MYANMAR; SIAM; SUMATRA.

38. *Polyrhachis striata* (Mayr)

1862. *Polyrhachis striatus* Mayr, *Verh. zool. bot. Ges. Wien.* , **12** : 686.

Material examined : 1 ex., (Regd. no. A1/ 13090), BRF, 28. 04. 2003.

Distribution : INDIA : Assam, Meghalaya, Sikkim.

Elsewhere : BORNEO; CHINA; INDO-CHINA; JAVA; MYANMAR; SUMATRA.

SUMMARY

38 species of Hymenoptera (Formicidae) belonging to 23 genera, under 5 subfamilies have so far been reported from the area.

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INTRODUCTION

Baghmara Reserve Forest area is rich in diversified fish fauna. 1895 examples of fishes belonging to 74 species under 47 genera, 20 families and 8 orders have been dealtwith in the present paper. Collections from earlier surveys have also been incorporated to get overall picture. Original reference only has been cited for each species. The species names with (+) denotes collection from old surveys and (*) denotes reported for the first time from South Garo Hills district. The systematic arrangement and nomenclatural status followed after Jayaram (1999) and the nomenclatural status after online version of Eschmeyer (www.fishbase.org).

SYSTEMATIC ACCOUNT

Phylum CHORDATA

Class ACTINOPTERYGII

Order OSTEOGLOSSIFORMES

Family NOTOPTERIDAE

+1. *Chitala chitala* (Hamilton)

1822. *Mystus chitala* Hamilton, *Fish Ganges*, pp 236, 382 (Type locality : larger freshwater rivers of Bengal and Bihar).

Material examined : 1 ex., (Regd. no. V/4065), Baghmara, 21. 12. 1978.

Distribution : INDIA : Meghalaya, Assam, Northern India.

Elsewhere : BANGLADESH; MYANMAR; PAKISTAN.

Remarks : Not very common in the area under report. It's status is endangered at national level (BCPP) or vulnerable (IUCN).

Order CYPRINIFORMES

Family CYPRINIDAE

2. *Securicula gora* (Hamilton)

1822. *Cyprinus gora* Hamilton, *Fish. Ganges*, pp. 268, 384 (Type locality : Ganges and its tributaries).

Material examined : 1 ex., (Regd. no. V/2312), Baghmara, 01. 04. 76; 1 ex., (Regd. no. V/F/1821), Rangdop Ram, BRF, 05. 08. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Northern India.

Elsewhere : BANGLADESH; PAKISTAN.

Remarks : Not very commonly occurring species in the area under report.

+3. *Salmophasia bacaila* (Hamilton)

1822. *Cyprinus bacaila* Hamilton, *Fish.Ganges*, pp. 265, 384, Pl. 8, fig. 76 (Type locality : Freshwater rivers of Gangetic Provinces).

Material examined : 1 ex., (Regd. no. V/1076), Baghmara, 19. 02. 1971.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, throughout India except Kerala, Karnataka, Tamil Nadu.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Not very commonly occurring species in the region under report.

*4. *Salmophasia phulo* (Hamilton)

1822. *Cyprinus phulo* Hamilton, *Fish.Ganges*, pp. 262, 384 (Type locality : North Eastern parts of Bengal).

Material examined : 1 ex., (Regd. no. V/F/1820), Rangdop Ram, BRF, 05. 08. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Ganga River system.

Elsewhere : BANGLADESH.

Remarks : Not common in the region under report. Reported for the first time from south Garo Hills.

5. *Barilius barna* (Hamilton)

1822. *Cyprinus (Barilius) barna* Hamilton, *Fish. Ganges*, pp. 268, 384 (Type locality : Yamuna river and Brahmaputra river).

Material examined : 1ex., (Regd. no.V/1075), Baghmara, 19. 02. 1971; 13exs., (Regd. no. V/1090), Baghmara, 18. 02. 1971; 4 exs., (Regd. no. V/2857), Baghmara, 09. 11. 1978; 8 exs., (Regd. no. V/F/1735), Phanda, BRF, 26. 04. 2003; 14 exs., (Regd. no. V/F/ 1744), BRF, 28.04. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Manipur, Tripura, West Bengal, Bihar, Orissa, Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Karnataka.

Elsewhere : BANGLADESH; MYANMAR; NEPAL.

Remarks : Commonly occurring species.

6. *Barilius bendelisis* (Hamilton)

1807. *Cyprinus bendelisis* Hamilton, *Journey in Mysore*, 3 : 345, Pl.32 (Type locality : Vedwati stream, headwaters of Krishna river near Heriuru, Mysore).

Material examined : 7 exs., (Regd. no. V/8230), Baghmara, 22. 01. 1979; 1 ex., (Regd. no. V/F/1493), BRF, 29. 08. 2002; 1 ex., (Regd. no. V/F/1527), Phanda, BRF, 06. 11. 2002; 1 ex., (Regd. no. V/F/1595), Garovane riv., Amphangree, BRF, 20. 01. 2003; 13 exs., (Regd. no. V/F/1624), Phanda, BRF, 18. 01. 2003; 4 exs., (Regd. no. V/F/1639), Phanda, BRF, 17. 01. 2003; 6 exs., (Regd. no. V/F/1730), Phanda, BRF, 26. 04. 2003; 3 exs., (Regd. no. V/F/1745), BRF, 28. 04. 2003; 8 exs., (Regd. no. V/F/1770), Bhowanipore, BRF, 23. 05. 2003; 1 ex., (Regd. no. V/F/1846) Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura, West Bengal, Bihar, Uttar Pradesh, Rajasthan, Himachal Pradesh, Punjab, Orissa, Coimbatore, Palghat, Nilgiri, Tamil Nadu, Karnataka, Mettupalayam.

Elsewhere : BANGLADESH; NEPAL; PAKISTAN; SRI LANKA.

Remarks : Commonly occurring species.

*7. *Barilius vagra vagra* (Hamilton)

1822. *Cyprinus vagra* Hamilton, *Fish. Ganges*, pp. 269, 385 (Type locality : Ganges at Patna).

Material examined : 1 ex., (Regd. no. V/F/1822), Rangdop Ram, BRF, 05. 08. 2003.

Distribution : INDIA : Assam, Arunachal Pradesh, Mizoram, Manipur, all along the base of Himalayas.

Elsewhere : AFGHANISTAN; BANGLADESH; NEPAL; NWFP (PUNJAB, SIND, BALUCHISTAN, AZAD KASHMIR); PAKISTAN.

Remarks : Reported for the first time from Meghalaya (South Garo Hills). Rare in occurrence in the region under report. It's status is vulnerable at national level.

+8. *Raiamas bola* (Hamilton)

1822. *Cyprinus bola* Hamilton- Buchanan, *Fish. Ganges*, pp. 274, 385 (Type locality : R. Brahmaputra).

Material examined : 1 ex., (Regd. no. V/1051), Baghmara, 19. 02. 1971; 1 ex., (Regd. no. V/2495), Baghmara, 01. 04. 1976.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, Himalayas: Kosi, Bagmati, Gandak drainages in Bihar and head waters of Ganges river in Uttar Pradesh

Elsewhere : NEPAL.

Remarks : Rarely occurring in the region under report. It's status is vulnerable at national level (BCPP) or endangered (IUCN).

*9. *Chela cachi* (Hamilton)

1822. *Cyprinus cachi* Hamilton, *Fish.Ganges*, pp. 258, 384 (Type locality : River Ganges, above the commencement of the Delta).

Material examined : 1 ex., (Regd. no. V/F/1819), Rangdop Ram, BRF, 05. 08. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, also throughout India.

Elsewhere : BANGLADESH; MYANMAR; PAKISTAN.

Remarks : Not very common in occurrence in the region under report. Reported for the first time from South Garo Hills.

10. *Esomus danricus* (Hamilton)

1822. *Cyprinus danrica* Hamilton, *Fish .Ganges*, pp. 325, 390, Pl. 16, fig. 88 (Type locality : Ponds and ditches of Bengal).

Material examined : 1 ex., (Regd. no. V/F/1534), Karonee riv., BRF, 07. 11. 2002; 1 ex., (Regd. no. V/F/1605), Mangma beel, BRF, 21. 01. 2003; 1 ex., (Regd. no. V/F/1612), Alokpong , BRF, 20. 01. 2003; 2 exs., (Regd. no. V/F/1626), Phanda, BRF, 18. 01. 2003; 1 ex., (Regd. no. V/F/1638), Phanda, BRF, 17. 01. 2003; 3 exs., (Regd. no. V/F/1772,1786), Bhowanipore, BRF,23. 05. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Manipur, Tripura, also throughout India.

Elsewhere : BANGLADESH; MYANMAR; MALAYA; NEPAL; PAKISTAN; SRI LANKA; THAILAND; S. VIETNAM.

Remarks : Not commonly occurring species in the region under report.

*11. *Danio dangila* (Hamilton)

1822. *Cyprinus dangila* Hamilton, *Fish.Ganges*, pp. 321,390 (Type locality : mountain streams of Mongher, Bihar).

Material examined : 1 ex., (Regd. no. V/F/1498), BRF, 31. 08. 2002; 12 exs., (Regd. no. V/F/1513), BRF, 30. 08. 2002; 3 exs., (Regd. no.V/F/1521), Khiruri, BRF, 09. 11. 2002; 9 exs., (Regd. no. V/F/1535, 1548, 1554), Karonee riv. BRF, 07. 11. 2002; 1 ex., (Regd. no.V/F/1540), Karonee riv. BRF, 10. 11. 2002; 12 exs., (Regd. no.V/F/1544), Karonee riv. BRF, 08. 11. 2002; 28 exs., (Regd. no. V/F/1555), Machikchiring, BRF, 10. 11. 2002; 14 exs., (Regd. no. V/F/ 1557), Shorae, BRF, 09. 11. 2002; 2 exs., (Regd. no. V/F/1592), Garovanee riv., Amphangree, BRF, 20. 01. 2003; 14 exs. (Regd. no.V/F/1600) DarilChirang, BRF, 21. 01. 2003; 1ex., (Regd. no. V/F/1608), Khiruri, BRF, 19. 01. 2003; 5 exs., (Regd. no. V/F/1617, 1627), Phanda, BRF, 18. 01. 2003; 24 exs., (Regd. no. V/F/1646), Phanda, BRF 17. 01. 2003; 17 exs. (Regd. no. V/F/1727, 1751), Meialla, BRF,25. 04. 2003; 1 ex., (Regd. no. V/F/1738), BRF, 24.

04. 2003; 9 exs., (Regd. no. V/F/1741), BRF, 28. 04. 2003; 9 exs., (Regd. no. V/F/1756), Bhowanipore, BRF, 23. 05. 2003; 34 exs., (Regd. no. V/F/1765), Phanda, BRF, 22. 05. 2003; 16 exs., (Regd. no. V/F/1769), Rangacherra, BRF, 23. 05. 2003; 9 exs., (Regd. no. V/F/1780), Walbok, BRF, 21. 05. 2003; 3 exs., (Regd. no. V/F/21. 05. 2003; 3 exs., (Regd. no. V/F/1798), Karonee riv. BRF, 25. 05. 2003; 18 exs., (Regd. no. V/F/1799), Binapani, BRF, 23. 05. 2003; 1 ex., (Regd. no. V/F/1805), Karonee riv. BRF, 06. 08. 2003; 31 exs., (Regd. no. V/F/1817), Rangdop Ram, BRF, 05. 08. 2003; 4 exs., (Regd. no. V/F/1829), Gamsing chiring, BRF 17. 10. 2003; 4 exs., (Regd. no. V/F/1840), Chikpet chiring, BRF, 19. 10. 2003; 1 ex., (Regd. no. V/F/1844), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Mizoram, Nagaland, Tripura, West Bengal, Bihar, Uttar Pradesh., Madhya Pradesh.

Elsewhere : BANGLADESH; MYANMAR; NEPAL.

Remarks : Reported for the first time from South Garo Hills. Commonly occurring in the area under report.

12. *Danio rerio* (Hamilton)

1822. *Cyprinus rerio* Hamilton, *Fishes of Ganges* : 323, 390 (Type locality : Kosi river, Uttar Pradesh).

Material examined : 5 exs., (Regd. no. V/1649), Baghmara, 18. 02. 1971; 5 exs., (Regd. no. V/F/1509), Baghmara, 31. 08. 2002; 40 exs., (Regd. no. V/F/1512), BRF, 30. 08. 2002; 1 ex., (Regd. no. V/F/1525), Phanda, BRF, 06. 11. 2002; 5 exs., (Regd. no. V/F/1531, 1533, 1547), Karonee riv., BRF, 07. 11. 2002; 5 exs., (Regd. no. V/F/1539), Karonee riv., BRF, 10. 11. 2002; 19 exs., (Regd. no. V/F/1593), Garovane riv., BRF, 20. 01. 2003; 7 exs., (Regd. No. V/F/1599), Daril Chirang, BRF, 21. 01. 2003; 24 exs., (Regd. no. V/F/1603), Mangma beel, BRF, 21. 01. 2003; 2 exs., (Regd. no. V/F/1609), Khiruri, BRF, 19. 01. 2003; 8 exs., (Regd. no. V/F/1611), Alokpong, BRF, 20. 01. 2003; 16 exs., (Regd. no. V/F/1616, 1623), Phanda, BRF, 18. 01. 2003; 4 exs., (Regd. no. V/F/1637, 1647), Phanda, BRF, 17. 01. 2003; 11 exs., (Regd. no. V/F/1724, 1728), Phanda, BRF, 26. 04. 2003; 2 exs., (Regd. no. V/F/1742), BRF, 28. 04. 2003; 6 exs., (Regd. no. V/F/1752), Miealla, BRF, 25. 04. 2003; 24 exs., (Regd. no. V/F/1755, 1771, 1787), Bhowanipore, BRF, 23. 05. 2003; 1 ex., (Regd. no. V/F/1764) Phanda, BRF, 22. 05. 2003; 2 exs., (Regd. no. V/F/1779), Walbok, BRF, 21. 05. 2003; 1 ex., (Regd. no. V/F/1793), Binapani, BRF, 23. 05. 2003; 2 exs., (Regd. no. V/F/1795), Karonee riv. BRF, 25. 05. 2003; 3 exs., (Regd. no. V/F/1816), Rangdop Ram, BRF, 05. 08. 2003; 1 ex., V/F/1836), Chikpetchiring, BRF, 19. 10. 2003; 1 ex., (Regd. no. V/F/1843), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Commonly occurring species.

13. *Devario aequipinnatus* (McClelland)

1839. *Perilampus aequipinnatus* McClelland, *Asiat. Res.*, **19**(2) pp. 393, Pl. 60, fig. 1 (Type locality : Assam).

Material examined : 1 ex., (Regd. no. V/2867), Baghmara, 09. 11. 1978; 2 exs., (Regd. no. V/F/1485), Phanda, BRF, 28. 08. 2002; 1 ex., (Regd. no. V/F/1545), Karonee riv., Amphangree, BRF 08.11.2002; 1 ex., (Regd.no. V/F/1757), Bhowanipore, BRF, 23. 05. 2003 ; 2 exs., (Regd. no. V/F/1808), Phanda, BRF, 07. 08. 2003; 1 ex., (Regd. no. V/F/1842), Bolbokchirang, BRF, 15. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura, and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; SRI LANKA; THAILAND.

Remarks : Not common in occurrence in the region under report.

*14. *Devario annandalei* (Chaudhuri)

1908. *Danio annandalei* Choudhuri, *Rec. Indian Mus.*, **2**(2) : 125 (Type locality : Kawkareik, base of Dawno Hills in Tenasserim, Lower Burma).

Material examined : 3 exs., (Regd. no. V/F/1483), Phanda, BRF, 17. 12. 2002.

Distribution : INDIA : Meghalaya.

Elsewhere : MYANMAR.

Remarks : Reported for the first time from North East India. In colour pattern, body shape and lateral line scales, it is similar to *annandalei*, only difference is presence of one pair of maxillary barbel (against one pair each of maxillary and minute rostral barbel as per description).

+15. *Devario devario* (Hamilton)

1822. *Cyprinus devario* Hamilton, *Fish. Ganges*, pp. 341, 393, Pl. 6, fig. 94 (Type locality : rivers and ponds of Bengal).

Material examined : 1 ex., (Regd. no. V/1106), Baghmara, 16. 02. 1971.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Tripura, West Bengal, E.Himalayas, W. Himalayas, Eastern Punjab, Uttar Pradesh, Bihar, Orissa, Madhya Pradesh, Ahemedabad, Krishna-Godavari river system, Deccan

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Not commonly occurring in the region under report.

+16. *Megarasbora elanga* (Hamilton)

1822. *Cyprinus elanga* Hamilton, *Fish. Ganges*, pp. 281, 386 (Type locality : Rivers and ponds of Bengal).

Material examined : 1 ex., (Regd. no. V/2307), Baghmara, 01. 04. 1976.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Tripura, Bengal.

Elsewhere : BANGLADESH; MYANMAR.

Remarks : Not common in the region under report.

*17. *Rasbora rasbora* (Hamilton)

1822. *Cyprinus rasbora* Hamilton, *Fish. Ganges* : pp. 329, 391, Pl. 2, fig. 90 (Type locality : Ponds of Bengal).

Material examined : 1 ex., (Regd. no. V/F/1486), Phanda, BRF, 28. 08. 2002; 1 ex., (Regd. no. V/F/1838), Chikpet chiring, BRF, 19. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Manipur, Tripura, West Bengal.

Elsewhere : BANGLADESH; MYANMAR; PAKISTAN; THAILAND.

Remarks : Not common in occurrence. Reported for the first time from South Garo Hills.

*18. *Amblypharyngodon mola* (Hamilton)

1822. *Cyprinus mola* Hamilton, *Fishes of Ganges* : 334, 392, pl. 38, fig. 92 (Type locality : ponds and rivers of Gangetic provinces).

Material examined : 1ex., (Regd. no.V/F/1975), Simsang River, Debigree, BRF, 07. 01. 2006.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, and also throughout India except Kerala.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Reported for the first time from South Garo Hills district. Not common in the region under report.

+19. *Neolissocheilus hexagonolepis* (McClelland)

1839. *Barbus hexagonolepis* McClelland, *Asiat. Res.*, 19(2) : 270, 340, pl. 41, fig. 3 (Type locality : Upper Assam).

Material examined : 1 ex.,(Regd.no. V/ 2854), Bagamara, 09.11.1978

Distribution : INDIA : Meghalaya, Darjeeling & E. Himalayas.

Elsewhere : BANGLADESH; MYANMAR; CHINA; MALAYSIA; NEPAL; SUMATRA; THAILAND.

Remarks : Not very commonly occurring like other parts of Meghalaya.

+20. *Osteobrama cotio cotio* (Hamilton)

1822. *Cyprinus cotio* Hamilton, *Fish. Ganges*, p. 339, Pl.39, fig. 93 (Type locality : Bengal).

Material examined : 3 exs., (Regd. no. V/2306), Baghmara, 01. 04. 1976.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura and Northern India.

Elsewhere : BANGLADESH; NEPAL; PAKISTAN.

Remarks : Not common in the region under report.

+21. *Chagunius chagunio* (Hamilton)

1822. *Cyprinus chagunio* Hamilton, *Fish. Ganges*, pp. 295, 387 (Type locality : Yamuna river and northern rivers of Bihar and Bengal).

Material examined : 1 ex., (Regd. no. V/1236), Baghmara, 18. 02. 1971; 2 exs., (Regd. no. V/2309), Baghmara, 01. 04. 1976; 1 ex., (Regd. no. V/4069), Baghmara, 21. 12. 1978.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Manipur, Tripura, Himalayas : Ganges and Brahmaputra drainage, Chota Nagpur.

Remarks : Not commonly occurring in the region under report. It's status is vulnerable (IUCN).

22. *Puntius chola* (Hamilton)

1822. *Cyprinus chola* Hamilton, *Fishes of Ganges* : 312, 289 (Type locality : north eastern part of Bengal).

Material examined : 1 ex., (Regd. no. V/2308), Baghmara, 01. 04. 1976; 1 ex., (Regd. no. V/F/1558), Shorae, BRF, 09. 11. 2002.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR, NEPAL; PAKISTAN; SRI LANKA.

Remarks : Not commonly occurring in the area. It's status is vulnerable (BCPP).

*23. *Puntius conchoni* (Hamilton)

1822. *Cyprinus conchoni* Hamilton-Buchanan, *Fishes of Ganges* : 317, 389 (Type locality : ponds of north east Bengal; Kosi river and Ami river).

Material examined : 1 ex.,(Regd. no. V/F/1484), Phanda, BRF, 28. 08. 2002, 7 exs. (Regd. no. V/F/1729), Phanda, BRF, 26. 04. 2003.

Distribution : INDIA : Meghalaya , Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura, West Bengal, Bihar, Uttar Pradesh, Punjab, Orissa, Eastern & Western Himalayas, Darjeeling, Deccan).

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Elsewhere : AFGHANISTAN; BANGLADESH; NEPAL; PAKISTAN.

Remarks : Reported for the first time from South Garo Hills. It's status is vulnerable at national level.

***24. *Puntius gelius* (Hamilton)**

1822. *Cyprinus gelius* Hamilton, *Fishes of Ganges* : 320, 390, pl. 145, fig. 3 (Type locality : ponds and ditches of northeast Bengal).

Material examined : 1 ex., (Regd. no. V/F/1747), BRF, 28. 04. 2003.

Distribution : INDIA : Meghalaya, Assam, Tripura, West Bengal, Bihar, Orissa.

Elsewhere : BANGLADESH; PAKISTAN.

Remarks : Rarely occurring Recorded for the first time from South Garo Hills. It's status is vulnerable (BCPP).

***25. *Puntius guganio* (Hamilton)**

1822. *Cyprinus guganio* Hamilton, *Fish. Ganges*, pp, 338, 339, 392 (Type locality : Brahmaputra and Yamuna).

Material examined : 1 ex., (Regd. no. V/F/1818), Rangdop Ram , BRF, 05. 08. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, North India : Gangetic Provinces.

Elsewhere : BANGLADESH.

Remarks : Not common in occurrence. Recorded for the first time from South Garo Hills. It's status is rare (IUCN).

+26. *Puntius sarana sarana* (Hamilton)

1822. *Cyprinus sarana* Hamilton, *Fishes of Ganges* : 307,388 (Type locality : ponds and rivers of Bengal).

Material examined : 2 exs., (Regd. no. V/1878), Baghmara, 18. 02. 1971; 1 ex., (Regd. no. V/2493), Baghmara, 01. 04. 1976.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura and also throughout India except peninsular India, south of Krishna.

Elsewhere : AFGHANISTAN; BANGLADESH; BHUTAN; MYANMAR; NEPAL; PAKISTAN; SIKKIM; MALAYA; THAILAND; JAVE; BORNEO; SRI LANKA; CHINA.

Remarks : Not common. It's status is vulnerable at National level.

***27. *Puntius sophore* (Hamilton)**

1822. *Cyprinus sophore* Hamilton, *Fishes of Ganges* : 310, 389, pl. 19, fig. 86 (Type locality : ponds & rivers in the Gangetic provinces).

Material examined : 1 ex., (Regd. no. V/F/1845), Phanda, BRF, 16. 10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN; YUNAN.

Remarks : It's occurrence in the region under report is not very common like other parts of Meghalaya. Reported for the first time from South Garo Hills.

***28. *Puntius terio* (Hamilton)**

1822. *Cyprinus terio* Hamilton, *Fishes of Ganges* : 313, 389 (Type locality : North-East Bengal).

Material examined : 1 ex., (Regd. no. V/F/1594), Garovanee riv., Amphangree, BRF, 20. 01. 2003; 1 ex., (Regd. no. V/F/1625), Phanda, BRF, 18. 01. 2003.

Distribution : INDIA : Meghalaya, Assam, Mizoram, Manipur, Tripura, West Bengal to Punjab, Orissa.

Elsewhere : BANGLADESH; PAKISTAN.

Remarks : Not commonly occurring species. Recorded for the first time from South Garo hills.

29. *Puntius ticto* (Hamilton)

1822. *Cyprinus ticto* Hamilton, *Fishes of Ganges* : 314, 398, pl. 8, fig. 87 (Type locality : south-eastern part of Bengal).

Material examined : 1 ex., (Regd. no. V/F/1492), BRF, 29. 08. 2002; 1 ex. (Regd. no. V/F/1746), BRF, 28. 04. 2003; 2 exs., (Regd. no. V/F/1773), Bhowanipore, BRF, 23. 05. 2003; 3 exs. (Regd. no. V/F/1781), Walbok, BRF, 21. 05. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN; SRILANKA; THAILAND.

Remarks : Not common like other parts of Meghalaya.

**+30. *Labeo ariza* (Hamilton)
(= *Cirrhinus reba*)**

1822. *Cyprinus reba* Hamilton, *Fish. Ganges*, pp. 280, 386 (Type locality : rivers and ponds of Bengal and Bihar).

Material examined : 2 exs., (Regd. no. V/2310), Baghmara, 01. 04. 1976; 1 ex., (Regd. no. V/2494), Baghmara, 01. 04. 1976; 2 exs., (Regd. no. V/4070), Baghmara, 21. 12. 1978.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Manipur, Tripura and also throughout India).

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN (Indus plain and adjoining hilly areas).

Remarks : Not commonly occurring species in the area under report. It's status is vulnerable at National level.

+ 31. *Labeo boga* (Hamilton)

1822. *Cyprinus boga* Hamilton, *Fishes of Ganges* : 286, 386, pl. 28, fig. 80 (Type locality : River Brahmaputra).

Material examined : 1 ex., (Regd. no.V/1232), Baghmara, 21. 02. 1974; 1 ex., (Regd. no. V/2305), Baghmara, 01. 04. 1976.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, West Bengal, North Bengal, Bihar, Uttar Pradesh, Orissa, Punjab, Deccan.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Not commonly occurring in the region under report.

+32. *Labeo calbasu* (Hamilton)

1822. *Cyprinus calbasu* Hamilton, *Fishes of Ganges* : 297, 387, pl. 2, fig. 33 (Type locality : rivers & ponds of Bengal in the Western Provinces).

Material examined : 2 exs., (Regd. no.V/1237), Baghmara, 18.02.1971.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Mizoram, Manipur, Tripura and also throughout India.

Elsewhere: BANGLADESH; MYANMAR; NEPAL; PAKISTAN; S.CHINA; THAILAND.

Remarks : Not very commonly occurring in the region under report.

+ 33. *Labeo gonius* (Hamilton)

1822. *Cyprinus gonius* Hamilton, *Fish. Ganges*, p. 292 , fig.38 (Type locality : Bengal).

Material examined : 1 ex.,(Regd.no. V/1233), Baghmara, 21.02.1971.

Distribution : INDIA : Meghalaya , Assam, Arunachal Pradesh, Tripura and North India extending upto Krishna system.

Elsewhere: BANGLADESH ; MYANMAR; PAKISTAN.

Remarks : Not common in the area under report.

+ 34. *Labeo pangusia* (Hamilton)

1822. *Cyprinus pangusia* Hamilton, *Fishes of Ganges* : 285, 386 (Type locality : Kosi river, Uttar Pradesh).

Material examined : 2 exs., (Regd. no. V/1234), Baghmara, 21.02.1974.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Manipur, Tripura, Ganges river system, Deccan.

Elsewhere: BANGLADESH; PAKISTAN.

Remarks : It's status is vulnerable (IUCN).

+ 35. *Labeo rohita* (Hamilton)

1822. *Cyprinus rohita* Hamilton, *Fishes of Ganges* : 301, 388, pl. 36, fig. 85 (Type locality : Freshwater rivers of Gangetic provinces).

Material examined : 1 ex., (Regd. no. V/4053), Baghmara, 22.01.1978.

Distribution : INDIA : Meghalaya, Assam, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; TERAJ REGION OF NEPAL; PAKISTAN.

Remarks : Not very common in the area under report.

+36. *Crossocheilus latius latius* (Hamilton)

1822. *Cyprinus latius* Hamilton, *Fishes of Ganges* : 345, 393 (Type locality : Tista river at base of Darjeeling Himalayas).

Material examined : 1ex., (Regd. no.V/1235), Baghmara, 21. 02. 1971; 6 exs., (Regd. no. V/1881), Baghmara, 18. 02. 1971.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura, West Bengal, Bihar, Uttar Pradesh, Gangetic Watershed of Himalayas, Orissa, Karnataka, Bombay, W. Ghats, Kaimur hills.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Not very commonly occurring species in the area under report.

Family BALITORIDAE

37. *Balitora brucei* Gray

1832. *Balitora brucei* Gray, *Ill. Ind. Zool.*, 1 : Pl. 88, fig. 1 (Type locality : Mountain streams, India).

Material examined : 1 ex., (Regd. no. V/F/1628), Phanda, BRF, 18. 01. 203; 5 exs., (Regd. no. V/F/1811), Phanda, BRF, 07. 08. 2003.

Distribution : INDIA : Meghalaya, Assam, Manipur , West Bengal, Darjeeling.

Elsewhere : NEPAL (Gandak drainage).

Remarks : Rarely occurring species.

38. *Acanthocobitis botia* (Hamilton)

1822. *Cobitis botia* Hamilton, *Fishes of Ganges* : 350, 394 (Type locality : rivers of north eastern Bengal).

Material examined : 2 exs., (Regd. no. V/1650), Baghmara, 18. 02. 1971; 1 ex., (Regd. no. V/F/1510), BRF, 31. 08. 2002; 2 exs., (Regd. no.V/F/1629), Phanda, BRF,18. 01. 2003; 1 ex. (Regd. no.V/F/1810), Phanda, BRF, 07. 08. 2003; 3 exs., (Regd. no. V/F/1848), Phanda, BRF, 16.10.2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Manipur, Tripura and also throughout India except Malabar coast & south of R. Krishna);

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN; SRILANKA.

Remarks : Not very common in occurrence.

+ 39. *Nemacheilus sikmaiensis* (Hora)

1921. *Nemacheilus sikmaiensis* Hora, *Rec. Indian Mus.*, **22**(3) : 201, pl. 9, fig.4 and pl.10, figs.1, 1a (Type locality : Sikmai stream near Patel, Manipur).

Material examined : 1 ex.,(Regd.no. V/ 1640), Baghmara, 18.02.1971.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Manipur.

Elsewhere : MYANMAR.

Remarks : Not common in the area. It's status is endangered and National level.

***40. *Schistura corica* (Hamilton)**

1822. *Cobitis corica* Hamilton, *Fishes of Ganges* : 359, 395 (Type locality: Kosi river)

Material examined : 1 ex., (Regd.no. V/F/1982), Phanda , BRF, 05.01.2006.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Sub Himalayan range, from Darjeeling through Kumaon, to Himachal Pradesh and Punjab (Sutlej basin).

Elsewhere: BANGALADESH; NEPAL; PAKISTAN.

Remarks : Rarely occurring in the region under report. Recorded for the first time from South Garo Hills district.

***41. *Schistura savona* (Hamilton)**

1822. *Cobitis savona* Hamilton, *Fishes of Ganges* : 357, 394 (Type locality : Kosi river at Nathpur, Uttar Pradesh).

Material examined : 4 exs., (Regd.no. V/F/1495), BRF, 29.08.2002; 6 exs., (Regd. no. V/F/1508), BRF, 31.08.2002; 3 exs., (Regd. no. V/F/ 1514), BRF, 30.08.2002; 4 exs., (Regd. no. V/F/1528), Phanda, BRF, 06.11.2002; 9 exs., (Regd. no. V/F/1632), Phanda, BRF, 18.01.2003; 31 exs. (Regd. no.V/F/1642,1648), Phanda, BRF,

17.01.2003; 6 exs., (Regd. no.V/F/1736), Phanda, BRF, 26.04.2003; 1 ex. (Regd. no. V/F/ 1778), Bhowanipore, BRF, 23.05.2003; 14 exs., (Regd. no.V/F/ 1812), Phanda, BRF,07.08.2003; 1 ex., (Regd. no.V/F/ 1824), Rangdop Ram, BRF, 05.08.2003; 4 exs., (Regd. no.V/F/ 1847,1856), Phanda, BRF, 16.10.2003.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Tripura, widely distributed in Eastern sub-Himalayan region, N. Bengal.

Elsewhere: BANGLADESH; NEPAL.

Remarks : Commonly occurring in the region under report. Recorded for the first time from this district.

FAMILY COBITIDAE

42. *Botia dario* (Hamilton)

1822. *Cobitis dario* Hamilton, *Fishes of Ganges* : 354, 394, pl. 29, fig. 95 (Type locality : northern rivers of Bengal).

Material examined : 5 exs., (Regd.no.V/F/ 1519), BRF, 30.08.2002; 2 exs., (Regd.no.V/F/ 1825), Rangdop Ram, BRF, 05.08.2003.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura, North Bengal, West Bengal, Bihar, Uttar Pradesh, Punjab, Rajmahal hills.

Elsewhere: BANGLADESH; PAKISTAN.

Remarks : Common in occurrence.

* 43. *Neoeucirrhichthys maydelli* Banarescu and Nalbant

1968. *Neoeucirrhichthys maydelli* Banarescu and Nalbant, *Mitt. Hamburg. Zool. Mus.Inst.*,65 : 349 (Type locality : Raimona, Goalpara Dist., Assam).

Material examined : 1 ex.(Regd.no.V/F/ 1496), BRF, 29.08.2002.

Distribution : INDIA : Assam

Elsewhere: So far endemic to North East India only.

Remarks : Recorded for the first time from Meghalaya (South Garo Hills). Rarely occurring species. It's status is vulnerable.

44. *Lepidocephalichthys annandalei* Chaudhuri

1912. *Lepidocephalichthys annandalei* Chaudhuri, *Rec. Indian Mus.*,7 : 442,Pl. 49, fig. 3, 3a, 3b (Type locality: Mahananda river at Siliguri and Tista river, near Jalpaiguri,W. Bengal).

Material examined : 9 exs., (Regd. no. V/ 551,552), Baghmara, 18.02.1971; 1 ex., (Regd. no.V/F/ 1511), BRF, 31.08.2002; 3 exs., (Regd. no. V/F/ 1640), Phanda,

BRF, 17.01.2003; 1 ex., (Regd. no. V/F/1766), Phanda, BRF, 22.05.2003; 3 exs., (Regd. no. V/F/1823), Rangdop Ram, BRF, 05.08.2003; 2 exs., (Regd. no. V/F/ 1857), Phanda, BRF, 16.10.2003.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, West Bengal, Mahananda and Tista drainages along the base of North Bengal, Uttar Pradesh (Saharanpur and Dehradun in the Gangetic plain).

Remarks : Common in occurrence.

***45. *Lepidocephalichthys berdmorei* (Blyth)**

1861. *Acanthopsis berdmorei* Blyth, *J. Asiat. Soc. Bengal*, **29** : 163 (Type locality : Tenasserim Province, Burma).

Material examined : 4 exs., (Regd. no. V/F/1774), Bhowanipore, BRF, 23.05.2003; 1 ex., (Regd. no. V/F/ 1849), Phanda, BRF, 16.10.2003; 1 ex., (Regd. no. V/F/ 1855), Chikpet chiring, BRF, 19.10. 2003.

Distribution : INDIA : Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Tripura.

Elsewhere : MYANMAR.

Remarks : It's status is endangered. Reported for the first time from South Garo Hills.

*** 46. *Lepidocephalichthys guntea* (Hamilton)**

1822. *Cobitis guntea* Hamilton, *Fishes of Ganges* : 353, 394 (Type locality : ponds and freshwaters of Bengal).

Material examined : 3 exs., (Regd.no.V/F/ 1487), Phanda, BRF, 28.08.2002; 1 ex., (Regd. no.V/F/1494), BRF, 29.08.2002; 2 exs., (Regd. no. V/F/ 1516), BRF, 30.08.2002; 4 exs. (Regd. no. V/F/1522), Khiruri, BRF, 09.11.2002; 3 exs., (Regd.no.V/F/1526), Phanda, BRF, 06.11.2002; 3 exs., (Regd.no. V/F/ 1596), Garovane riv., Amphangree, BRF, 20.01.2003; 1 ex., (Regd. no. V/F/1606), Mangma beel, BRF, 21.01.2003; 10 exs., (Regd. no V/F/1618,1631), Phanda , BRF, 18.01.2003; 14 exs., (Regd. no. V/F/1641), Phanda, BRF, 17.01.2003; 5 exs., (Regd. no. V/F/1723, 1731), Phanda, BRF, 26.04.2003; 2 exs., (Regd. no. V/F/1775, 1790), Bhowanipore, BRF, 23.05.2003; 1 ex., (Regd. no. V/F/ 1785), Walbok, BRF, 21.05.2003; 2 exs., (Regd. no. V/F/ 1850), Phanda, BRF, 16.10. 2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura and also throughout India except Karnataka, Kerala & South of Krishna.

Elsewhere : BANGLADESH; NEPAL; PAKISTAN; THAILAND.

Remarks : Commonly occurring species but reported for the first time from South Garo Hills

*47. *Lepidocephalichthys menoni* (Pillai and Yazdani)

1976. *Lepidocephalichthys menoni* Pillai and Yazdani, *J. Zool. Soc. India*, **26**(1-2) : 13 (Type locality : Someswari river at Baghmara, G. Hills, Meghalaya).

Material examined : 1 ex., (Regd. no. V/F/ 1630), Phanda, BRF, 18.01.2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Uttar Pradesh, Doon valley.

Remarks : Reported for the first time from South Garo Hills. It's status is vulnerable/critical.

Order SILURIFORMES

Family BAGRIDAE

48. *Mystus bleekeri* (Day)

1846. *Bagrus keletius* (nec.Valenciennes) Bleeker, *Nat. Geneesk. Arch. Ned. Indie*, **3** (2): 135 (Type locality: Bengal) (name occupied by Valenciennes, 1839) *Macrones bleekeri* Day, 1877, *Fishes of India* : 451, pl.101, fig. 1 (Replacement name for *Bagrus keletius* Bleeker, 1846).

Material examined : 2 exs., (Regd. no. V/F/ 1488), Phanda, BRF, 28.08.2002; 1 ex. (Regd. no.V/F/1633), Phanda, BRF, 18.01.2003.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Nagaland, Manipur, Tripura, Darjeeling, West Bengal, North India, Mahanadi headwaters, Baroda.

Elsewhere : BANGLADESH; MYANMAR; MALAYA; NEPAL; PAKISTAN; SUMATRA

Remarks : It's status is vulnerable

+ 49. *Mystus cavasius* (Hamilton)

1822. *Pimelodus cavasius* Hamilton, *Fish.Ganges*, pp. 203,379, Pl.11,fig. 67 (Type locality : Gangetic Provinces).

Material examined : 1 ex. (Regd. no. V/1109), Baghmara, 19.02.1971; 1 ex., (Regd. no. V/2311), Baghmara, 01.04.1976; 2 exs., (Regd. no. V/4071); Baghmara, 21.12.1978.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura and also throughout India.

Elsewhere: BANGLADESH; BORNEO; JAVA; MYANMAR; MALAY; NEPAL; PAKISTAN; SUMATRA; THAILAND.

Remarks : Not commonly occurring in the area under report.

50. *Mystus vittatus* (Bloch)

1797. *Silurus vittatus* Bloch, *Ichthyol. Hist. Nat.*, **11** : 40, pl. 371, fig.2 (Type locality : Tranquebar, Tamil Nadu).

Material examined : 1 ex. (Regd. no. V/F/1852), Phanda, BRF, 16.10.2003

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; MALAYA; NEPAL; PAKISTAN; SRILANKA; THAILAND.

Remarks : Not very commonly occurring in the region under report, though it is very common in plain region. It's status is vulnerable at National level.

+ 51. *Sperata seenghala* (Sykes)

1839. *Platystoma seenghala* Sykes, *Trans. Zool. Soc. Lond.*, 2 : 371, Pl.65, fig. 2 (Type locality : Mutha-Mula river, Poona).

Material examined : 1 ex., (Regd. no. V/4066), Baghmara, 21.12.1978.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, Ganga, Yamuna, Brahmaputra, Godavary, Krishna, Cauvery river system.

Elsewhere : BANGLADESH; NEPAL; PAKISTAN

Remarks : Not common in the area under report.

Family SILURIDAE

+ 52. *Wallago attu* (Schneider)

1801. *Silurus attu* Schneider, *Syst. Ichth.*, p. 378, Pl. 75 (Type locality : Malabar).

Material examined : 1 ex., (Regd.no. V/ 4067), Baghmara, 21. 12. 1978.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Tripura and also throughout India.

Elsewhere: AFGHANISTAN; BANGLADESH; INDONESIA; MYANMAR; PAKISTAN; SRI LANKA; THAILAND.

Remarks : Not common in the area under report.

Family AMBLYCIPITIDAE

53. *Amblyceps mangois* (Hamilton)

1822. *Pimelodus mangois* Hamilton, *Fishes of Ganges* : 199, 379 (Type locality : Northern Bihar).

Material examined : 3 exs., (Regd. no. V/1659), Baghmara, 18.02.1971; 1 ex., (Regd. no. V/F/ 1497), BRF, 29.08.2002 ; 23 exs., (Regd. no. V/F/ 1499, 1507), BRF, 31.08.2002; 2 exs., (Regd.no. V/F/ 1524), Phanda, BRF, 06.11.2002; 1 ex.,(Regd.no. V/F/ 1542), Karonee riv., Amphangree, BRF, 08.11.2002; 9 exs., (Regd. no. V/F/ 1622), Phanda, BRF, 18.01.2003; 2 exs., (Regd. no.V/F/1643), Phanda, BRF, 17.01.2003; 4 exs., (Regd. no. V/F/ 1813), Phanda, BRF, 07.08.2003; 2 exs., (Regd. no. V/F/ 1851), Phanda , BRF, 16.10.2003.

Distribution : INDIA: Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Tripura, All along the base of the Himalayas & Krishna river system.

Elsewhere: BANGLADESH; MYANMAR; LAOS; NEPAL; PAKISTAN; THAILAND.

Remarks : Commonly occurring in the area under report.

Family SISORIDAE

+ 54. *Bagarius bagarius* (Hamilton)

1822. *Pimelodus bagarius* Hamilton, *Fish. Ganges*, pp. 186, 378, Pl.7, fig. 62 (Type locality : not given)

Material examined: 1 ex., (Regd. no.V/4068), Bagmara, 21.12.1978.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; COMBODIA; LAOS; MALAY ARCHIPELAGO; MYANMAR; PAKISTAN; THAILAND; VIETNAM.

Remarks : It's status is vulnerable (BCPP, IUCN).

+ 55. *Conta conta* (Hamilton)

1822. *Pimelodus conta* Hamilton, *Fish.Ganges*, p. 191 (Type locality : River Mahananda).

Material examined : 1 ex., (Regd. no. V/ 3097), Bagmara, 09.11.1978.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Terai of North Bengal.

Remarks : Rarely occurring in the area under report.

* 56. *Pseudolaguvia ribeiroi* (Hora)

1938. *Laguvia ribeiroi* Hora, *Rec.Indian Mus.*, 40 : 179, fig. 5,a,b (Type locality : Rajmahal hills, Santal Parganas).

Material examined : 2 exs., (Regd. no. V/F/ 1506), BRF, 31.08.2002 ; 2 exs., (Regd. no. V/F/ 1515), BRF, 30.08.2002.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Tripura, Himalayas: From North Bengal to as far as Saharanpur along the Himalayan base and Rihand river along the Vindhyan range.

Elsewhere : NEPAL (Kosi river).

Remarks : Not common in occurrence. Reported for the first time from South Garo Hills.

57. *Pseudolaguvia shawi* (Hora)

1921. *Laguvia shawi* Hora, *Rec.Indian Mus.*, 22(5) : 740, pl. 29, fig. 2, (Type locality : Mahananda and Sivoke rivers, Darjeeling Himalayas).

Material examined : 7 exs., (Regd. noV/F/1635), Phanda, BRF, 18.01.2003; 10 exs., (Regd. no.V/F/ 1814), Phanda, BRF, 07.08.2003; 2 exs., (Regd. no. V/F/1854), Phanda, BRF, 16.10.2003.

Distribution : INDIA : Meghalaya, Assam, North India, Darjeeling Himalayas.

Elsewhere: BANGLADESH

Remarks : It's status is endangered.

Family HETEROPNEUSTIDAE

*58. *Heteropneustes fossilis* (Bloch)

1794. *Silurus fossilis* Bloch, *Naturgesch. Ausl. Fische*, **8** : 46, pl.370, fig. 2 (Type locality : Tranquebar, Tamil Nadu).

Material examined : 1 ex., (Regd. no.V/F/1991), Kharaoni village, BRF, 07.01.2006.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Tripura and also throughout India.

Elsewhere : BANGLADESH; NEPAL; MYANMAR; LAOS; THAILAND; SRI LANKA.

Remarks : Reported for the first time from South Garo Hills. It's status is vulnerable.

Family CHACIDAE

*59. *Chaca chaca* (Hamilton)

1822. *Platystacus chaca* Hamilton, *Fishes of Ganges* : 140, 374, pl. 28, fig.43, (Type locality: rivers and ponds of north eastern parts of Bengal).

Material examined : 1 ex., (Regd. no.V/F/1965), Simsang river, Debigree, BRF, 07.01.2006

Distribution : INDIA: Meghalaya, Assam, Tripura , Ganges-Brahmaputra drainages, Irrawady river system, some fresh waters of Bombay

Elsewhere : BANGLADESH; BORNEO; MALAYA; MYANMAR; NEPAL; SUMATRA.

Remarks : Reported for the first time from South Garo Hills. Rarely occurring species in the region.

Order MUGILIFORMES

Family MUGILIDAE

+ 60. *Rhinomugil corsula* (Hamilton)

1822. *Mugil corsula* Hamilton, *Fish. Ganges*, pp. 221, 381, Pl .9, fig. 97 (Type locality : Gangetic Provinces).

Material examined : 2 exs., (Regd. no. V/ 2304), Baghmara, 01.04.1976.

Distribution : INDIA: Meghalaya, Assam, Tripura, Uttar Pradesh, Bihar, West Bengal, Orissa, Tamil Nadu.

Elsewhere : BANGLADESH; MYANMAR; NEPAL.

Remarks : It's status is vulnerable at National level.

Order CYPRINIDONTIFORMES

Family APLOCHEILIDAE

* 61. *Aplocheilus panchax* (Hamilton)

1822. *Esox panchax* Hamilton, *Fishes of Ganges* : 211, 380, Pl.3, Fig. 69 (type locality : Bengal).

Material examined : 1 ex., (Regd. no. V/F/1504), BRF, 31.08.2002; 2 exs., (Regd. no. V/F/1733), Phanda, BRF, 26.04.2003.

Distribution : INDIA: Meghalaya, Assam, Tripura, West Bengal, Bihar, Uttar Pradesh, Orissa, E. Punjab, Madhya Pradesh, Andaman.

Elsewhere : BANGLADESH ; MYANMAR; THAILAND TO MALAY ARCHIPELAGO; PAKISTAN; SIAM; SRILANKA.

Remarks : Not common in occurrence , reported for the first time from South Garo Hills.

Order SYNBRANCHIFORMES

Family MASTACEMBELIDAE

*62. *Macrogathus pancalus* (Hamilton)

1822. *Macrogathus pancalus* Hamilton, *Fishes of Ganges* : 30, 364, pl. 22, fig. 7 (Type locality : tanks of Gangetic provinces).

Material examined : 1 ex., (Regd. no. V/F/ 1559), Shorae, BRF, 09.11.2002.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; PAKISTAN.

Remarks : Not very commonly occurring in the region under report. Reported for the first time from this district.

+63. *Mastacembelus armatus* (Lacepede)

1800. *Macrogathus armatus* Lacepede, *Hist. Nat. Poiss.*, 2 : 286 (Type locality : not mentioned).

Material examined : 2 exs., (Regd. no. V/2496), Baghmara, 01.04.1976 ; 1 ex., (Regd. no. V/ 3233), Baghmara, 18.02. 1971.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; BALUCHISTAN; CAMBODIA; SOUTH CHINA; HAINAN ISLAND; JAVE; MALAYA; MYANMAR; NEPAL; PAKISTAN; SRILANKA; SUMATRA; THAILAND; TONKIN.

Remarks : Not very commonly occurring species in the area under report.

Family CHAUDHURIIDAE

64. *Pillaia indica* Yazdani

1972. *Pillaia indica* Yazdani, *J. Bombay Nat. Hist. Soc.*, **69**(1) : 134. (Type locality : Sumer, Khasi Hills, Meghalaya).

Material examined : 1 ex., (Regd. no. V/F/ 1621), Phanda, BRF, 18.01.2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh.

Elsewhere : So far endemic to North East India

Remarks : It's status is vulnerable.

Order PERCIFORMES

Family CHANDIDAE

65. *Chanda nama* (Hamilton)

1822. *Chanda nama* Hamilton, *Fishes of Ganges* : 109, 371, pl. 39, fig. 37 (Type locality : ponds throughout Bengal).

Material examined : 1 ex., (Regd. no. V/F/ 1501), Baghmara, 31.08.2002.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Not commonly occurring in the area under report.

66. *Parambassis ranga* (Hamilton)

1822. *Chanda ranga* Hamilton, *Fishes of Ganges* : 113, 371, pl. 6, fig. 38 (Type locality : freshwaters of all parts of Gangetic provinces).

Material examined : 1 ex., (Regd.no. V/ 2745), Baghmara, 18.02.1971; 1 ex., (Regd. no. V/F/1503), BRF, 31.08.2002; 1 ex., (Regd. no. V/F/1748), BRF, 28.04.2003; 2 exs., (Regd. no.V/F/ 1826), Rangdop Ram, BRF, 05.08.2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Manipur, Tripura and also throughout India.

Elsewhere : BANGLADESH; MYANMAR; MALAYA; NEPAL; PAKISTAN; SIAM; THAILAND.

Remarks : Not common in the area under report.

67. *Pseudambassis baculis* (Hamilton)

1822. *Chanda baculis* Hamilton, *Fishes of Ganges* : 112, 371, pl. 22, fig. 7. (Type locality : north eastern parts of Bengal).

Material examined : 1 ex., (Regd. no. V/F/1502), Baghmara, 31.08.2002; 8 exs., (Regd. no. V/F/ 1749), BRF, 28.04.2003; 2 exs., (Regd. no.V/F/1763), Phanda, BRF, 22.05.2003; 1 ex., (Regd. no. V/F/ 1783), Walbok, BRF, 21.05.2003.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Mizoram, Tripura, West Bengal, Orissa, North India, Kalimpong, Duars, Siliguri, Madhya Pradesh, Bombay, Bihar, Punjab.

Elsewhere : BANGLADESH; MYANMAR; PAKISTAN; THAILAND.

Remarks : Not very common in the area under report.

Family BADIDAE

68. *Badis badis* (Hamilton)

1822. *Labrus badis* Hamilton, *Fishes of Ganges* : 70, 368, pl. 25, fig. 23 (Type locality : Gangetic provinces).

Material examined : 20 exs., (Regd. no. V/1099), Baghmara, 18.02.1971; 2 exs., (Regd. no. V/1105), Baghmara, 19.02.1971; 2 exs., (Regd. no.V/F/ 1490,1505), BRF, 31.08.2002; 27 exs., (Regd. no.V/F/1518), BRF, 30.08.2002; 1 ex., (Regd. no. V/F/ 1523), Khiruri, BRF, 09.11.2002; 61 exs., (Regd. no. V/F/1530, 1536, 1549, 1553), Karonee riv., Amphangree, BRF, 07.11.2002; 26 exs., (Regd. no. V/F/1538), Karonee riv., Amphangree, BRF, 10.11.2002, 2 exs., (Regd. no.V/F/1546), Karonee riv., Amphangree, BRF, 08.11.2002; 1 ex., (Regd. no. V/F/1560), Shorae, BRF, 09.11.2002; 1 ex., (Regd. no.V/F/1597), Garovanee riv., Amphangree, BRF, 20.01.2003; 14 exs., (Regd. no.V/F/1601), Daril chirang, BRF, 21.01.2003; 70 exs., (Regd. no. V/F/1604), Mangma beel, BRF, 21.01.2003; 7 exs., (Regd. no. V/F/1613), Alokpong, BRF, 20.01.2003; 20 exs., (Regd. no. V/F/1620,1634), Phanda, BRF, 18.01.2003; 3 exs., (Regd. no.V/F/1644,1649), Phanda, BRF, 17.01.2003; 90 exs. (Regd. no. V/F/ 1725,1750), Meialla, BRF, 25.04.2003; 6 exs., (Regd. no. V/F/1732), Phanda, BRF, 26.04.2003; 1 ex., (Regd. no. V/F/1739), BRF, 24.04.2003; 17 exs., (Regd. no. V/F/ 1740), BRF, 28.04.2003; 23 exs., (Regd. no. V/F/1754,1776,1789), Bhowanipore, BRF, 23.05.2003; 26 exs., (Regd. no. V/F/1762), Phanda, BRF, 22.05.2003; 55 exs., (Regd. no. V/F/1767), Rangacherra, BRF, 23.05.2003; 15 exs., (Regd. no. V/F/ 1782), Walbok, BRF, 21.05.2003; 23 exs., (Regd. no. V/F/1794), Binapani, BRF, 23.05,2003; 27 exs., (Regd. no. V/F/1796), Karonee riv., Amphangree, BRF, 25.05.2003; 2 exs., (Regd. no. V/F/1800, 1802), Debit bibra, BRF, 06.08.2003; 1 ex., (Regd. no. V/F/ 1803), Karonee riv., Amphangree, BRF, 06.08.2003; 11 exs., (Regd. no. V/F/1807),

Rama village, BRF, 08.08.2003; 1 ex., (Regd. no. V/F/1809), Phanda, BRF, 07.08.2003; 21 exs., (Regd. no. V/F/1828), Rangdop Ram, BRF, 05.08.2003; 23 exs., (Regd. no. V/F/1832,1837,1841), Chikpet chiring, BRF, 19.10.2003; 2 exs., (Regd. no. V/F/1853), Phanda, BRF,16.10.2003.

Distribution : INDIA : Meghalaya , Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura and throughout India.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Very common in occurrence.

Family GOBIIDAE

69. *Glossogobius giuris* (Hamilton)

1822. *Gobius giuris* Hamilton, *Fishes of Ganges* : 51, pl.33, fig.15 (Type locality : Gangetic provinces).

Material examined : 1 ex., (Regd. no. V/F/1489), BRF, 31.08.2002.

Distribution : INDIA: Meghalaya, Assam, Arunachal Pradesh, Mizoram, Manipur, Tripura and also throughout India including Andamans.

Elsewhere : BANGLADESH; MYANMAR; CHINA; MALAYA PENINSULA; NEPAL; PAKISTAN; PHILLIPINES; SRILANKA; THAILAND; E.COAST OF AFRICA TO JAPAN; AUSTRALIA; INDO-AUSTRALIAN ARCHIPELAGO; SOUTH PACIFIC ISLANDS.

Remarks : Rarely occurring in the region under report.

Family BELONTIDAE

70. *Colisa fasciatus* (Schneider)

1801. *Trichogaster fasciatus* Schneider, *Syst. Ichthy.* ,164, pl. 36 (Type locality : Tranquebar)

Material examined : 1 ex., (Regd. no. V/F/1500), BRF, 31.08.2002

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, North India, Estuaries of Ganga, Coromondol coast, R.Krishna.

Elsewhere : BANGLADESH; MYANMAR; NEPAL; PAKISTAN.

Remarks : Though it is a common species, but its occurrence in the area under report is not very common.

Family CHANNIDAE

71. *Channa orientalis* (Schneider)

1801. *Channa orientalis* Schneider, *Syst. Ichtyol*, 496, pl. 90, fig. 2. (Type locality : India).

Material examined : 12 exs., (Regd. no. V/F/1517), BRF, 30.08.2002; 3 exs., (Regd. no. V/F/1520), Khiruri, BRF, 09.11. 2002; 18 exs., (Regd. no. V/F/1529, 1532, 1551, 1552), Karonee riv., Amphangree, BRF, 07.11.2002; 12 exs., (Regd. no. V/F/

1537), Walbok riv., BRF, 08.11.2002; 10 exs., (Regd. no. V/F/1541), Karonee riv., Amphangree, BRF, 10.11.2002; 1 ex., (Regd. no. V/F/1543), Karonee riv., Amphangree, BRF, 08.11.2002; 5 exs., (Regd. no. V/F/1556), Machikchiring, BRF, 10.11.2002; 7 exs., (Regd. no. V/F/1561), Shorae, BRF, 09.11.2002; 1 ex., (Regd. no. V/F/1598), Garovane riv., Amphangree, BRF, 20.01.2003; 25 exs., (Regd. no. V/F/1602), Daril chirang, 21.01.2003; 5 exs., (Regd. no. V/F/1607), Mangma beel, beel, 21.01.2003; 3 exs., (Regd. no. V/F/1610), Khiruri, BRF, 19.01.2003; 7 exs., (Regd. no. V/F/1614), Shorae, BRF, 20.01.2003; 10 exs. (Regd. no. V/F/1615), Walbok riv., BRF, 21.01.2003; 2 exs., (Regd. no. V/F/1619,1636), Phanda, BRF, 18.01.2003; 20 exs., (Regd. no. V/F/1645,1650), Phanda, BRF, 17.01.2003; 34 exs., (Regd. no. V/F/1726,1753), Meialla, BRF, 25.04.2003; 5 exs., (Regd. no. V/F/1734), Phanda, BRF, 26.04.2003; 3 exs., (Regd. no. V/F/1737), BRF, 24.04.2003; 6 exs., (Regd. no. V/F/1743), BRF, 28.04.2003; 34 exs., (Regd. no. V/F/1758, 1777, 1788), Bhowanipore, BRF, 23.05.2003; 2 exs., (Regd. no. V/F/1759), Rangphusmang, BRF, 24.05.2003; 4 exs., (Regd. no. V/F/1760), Damchirang, BRF, 25.05.2003; 15 exs., (Regd. no. V/F/1761), Phanda, BRF, 22.05.2003; 16 exs., (Regd. no. V/F/1768), Rangecherra, BRF, 23.05.2003; 1 ex., (Regd. no. V/F/1784), Walbok riv., BRF, 21.05.2003; 6 exs., (Regd. no. V/F/1791), Wanekchirang, 24.05.2003; 6 exs., (Regd. no. V/F/1792), Chikpet chirang, BRF, 24.05.2003; 10 exs., (Regd. no. V/F/1797), Karonee riv., Amphangree, BRF, 25.05.2003; 1 ex., (Regd. no. V/F/1801), Debit bibra, BRF, 06.08.2003; 1 ex., (Regd. no. V/F/1804), Karonee riv., Amphangree, BRF, 06.08.2003; 5 exs., (Regd. no. V/F/1806), Rama village, BRF, 08.08.2003; 25 exs., (Regd. no. V/F/1827), Rangdop Ram, BRF, 05.08.2003; 8 exs., (Regd. no. V/F/1830,1834), Gamsing chiring, BRF, 17.10.2003; 3 exs., (Regd. no. V/F/1831,1839), Chikpet chirang, BRF, 19.10.2003; 7 exs., (Regd. no. V/F/1833), Asemchiring, BRF, 18.10.2003; 1 ex., (Regd. no. V/F/1834), 4 exs., (Regd. no. V/F/1835), Chikhasen, BRF, 18.10.2003.

Distribution : INDIA : Meghalaya , Assam, Arunachal Pradesh, Mizoram, Nagaland, Manipur, Tripura and also throughout India

Elsewhere : AFGHANISTAN; BANGLADESH; MYANMAR; HAINAN; INDO-CHINA; IRAN; MALAYA; MALAYA ARCHIPELAGO; NEPAL; PAKISTAN; SIAM; SRILANKA; TAIWAN; THAILAND; YUNNAN.

Remarks : Common in occurrence. Though it is a common species of N.E. India, it's status is vulnerable at National level.

72. *Channa punctatus* (Bloch)

1793. *Ophiocephalus punctatus* Bloch, *Naturges ausland. Fische.*, (7) : 139, pl.358 (Type locality : rivers and lakes of Coromondol coast).

Material examined : 1 ex., (Regd. no. V/2855), Baghmara, 09.11.1978; 2 exs., (Regd. no. V/F/1491), BRF, 29.08.2002; 1 ex., (Regd. no. V/F/1550), Karonee riv., Amphangree, BRF, 07.11. 2002.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Nagaland, Manipur, Tripura and also throughout India

Elsewhere : AFGHANISTAN; BANGLADESH; MYANMAR; CHINA; MALAYA; NEPAL; PAKISTAN; POLYNESIA; TAHITI.

Remarks : Though it is a commonly occurring species but its occurrence in the area under report is not very common.

+73. *Channa stewartii* (Playfair)

1867. *Ophiocephalus stewartii* Playfair, *Proc. Zool. Soc. London*, 14, pl. 77, fig. 3 (Type locality : Cachar, Assam).

Material examined : 3 exs., (Regd.n o. V/1615), Baghmara, 18.02.1971.

Distribution : India : Meghalaya, Assam, Arunachal Pradesh, Tripura, West Bengal, Bihar

Elsewhere : NEPAL

Remarks : Not common in the area under report.

Order TETRAODONTIFORMES

Family TETRAODONTIDAE

+74. *Tetraodon cutcutia* (Hamilton)

1822. *Tetraodon cutcutia* Hamilton, *Fishes of Ganges* : 8 , 362, pl. 18, fig. 3 (Type locality : Ganges river).

Material examined : 1 ex., (Regd. no. V/1662), Baghmara, 18.02.1971.

Distribution : INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Tripura, West Bengal, Bihar, Orissa.

Elsewhere : BANGLADESH.

Remarks : Not very commonly occurring in the area under report.

SUMMARY

The area under report is rich in diversified fish fauna comprising 74 species under 47 genera, 20 families and 8 orders. 20 species reported for the first time from the district and 3 species namely *Barilius vagra*, *Danio annandalei* and *Neoeucirrhichthys maydelli* reported for the first time from the State.

Statuswise 17 vulnerable species (*Barilius vagra*, *Chagunius chagunio*, *Puntius chola*, *P. conchoniis*, *P. gelius*, *P. sarana*, *Cirrhina reba*, *Labeo pangusia*, *Neoeucirrhichthys maydelli*, *Lepidocephalus menoni*, *Mystus bleekeri*, *M.vittatus*, *Bagarius bagarius*, *Heteropneustes fossilis*, *Rhinomugil corsula*, *Chaudhuria (Pillaia) indica* and *Channa orientalis*) and 7 endangered species (*Chitala chitala*, *Barilius bola*, *Neolissocheilus hexagonolepis*, *Puntius guganio*, *Schistura sikmaiensis*, *Lepidocephalus berdmorei* and *Laguvia shawi*) are occurring in the area under report.

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AMPHIBIA

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INTRODUCTION

A total of 481 examples of amphibia belonging to 18 species under 11 genera, 4 families and 1 order are reported. Systematic arrangements and nomenclature are after Frost (2009).

Class AMPHIBIA

Order ANURA

Family BUFONIDAE

*1. *Bufo stuarti* Smith, 1929

1929. *Bufo stuarti* Smith, *Rec. Indian Mus.*, 31 : 78-79 (Type locality : Putao plain, N.E. Burma, near Tibetan frontier).

Material examined: 1 ex., (Regd. no. V/A/433), Phanda, BRF, 22.05.2003.

Distribution : INDIA : Assam.

Elsewhere : MYANMAR

Remarks : Reported for the first time from Meghalaya (South Garo Hills).

2. *Duttaphrynus melanostictus* (Schneider, 1799)

1799. *Bufo melanostictus* Schneider, *Hist. Amph.*, 1 : 216 (Type locality : "Ex India Orientalis)

Material examined : 1 ex., (Regd. no. V/A/356), BRF, 31.08.2002.

Distribution: INDIA : Meghalaya, Assam, Arunachal Pradesh, Manipur, Mizoram, Nagaland, Tripura and also throughout India.

Elsewhere : BALI; BORNEO; CHINA; HONGKONG; INDONESIA; JAVA; MALAYSIA; MYANMAR; NEPAL; PAKISTAN; PHILIPPINES; SUMATRA; THAILAND; SRI LANKA.

Remarks : Widely distributed species.

Family DICROGLOSSIDAE

3. *Euphlyctis cyanophlyctis* (Schneider, 1799)

1799. *Rana cyanophlyctis* Schneider, *Hist. Amph.* Vol. 8 : 137. (Type locality : " Eastern India").

Material examined : 1 ex., (Regd. no. V/ 945), Baghmara, 19.02.1971; 3 exs., (Regd. no.V/ 964), Baghmara, 19.02.1971; 5 exs., (Regd. no. V/A/359), Phanda, BRF, 28.08.2002; 5 exs., (Regd. no.V/A/362), On way to Rongara, BRF, 29.08.2002.

Distribution : INDIA : Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and also throughout India.

Elsewhere : AFGHANISTAN; BANGLADESH; BHUTAN; MALAYA, MYANMAR; NEPAL, PAKISTAN; SAUDI ARABIA; SRI LANKA.

Remarks : A widely distributed species.

4. *Euphlyctis hexadactylus* (Lesson, 1834)

1834. *Rana hexadactylus* Lesson, *Voy. Ind. Or. Rept.*, : 331. (Type locality : "South India")

Material examined : 1 ex., (Regd. no.V/A/338), Karonee R., Amphangiri, BRF, 07.11.2002; 7 exs., (Regd. no. V/A/339), Phanda, BRF, 06.11.2002; 6 exs., (Regd. no. V/A/340), Karonee R., Amphangiri, BRF, 07.11.2002; 3 exs., (Regd. no.V/A/342), Karonee R., Amphangiri, BRF, 07.11.2002; 8 exs., (Regd. no. V/A/ 344), Phanda, BRF, 06.11.2002; 8 exs., (Regd. no. V/A/345), Phanda, BRF, 06.11.2002; 9 exs., (Regd. no.V/A/348), Khiruri, BRF, 09.11.2002; 3 exs., (Regd. no.V/A/349), Karonee R., Amphangiri, BRF, 10.11.2002; 2 exs., (Regd. no. V/A/351), Rongara R., 39 kims from Baghmara, 29.08.2002; 2 exs., (Regd. no.V/A/352), BRF, 30.08.2002; 5 exs., (Regd. no.V/A/354), BRF, on way to Angratoli, 31.08.2002; 11 exs., (Regd. no.V/A/360), Phanda, BRF, 28.08.2002; 7 exs., (Regd. no.V/A/ 377), Phanda, BRF, 17.01.2003; 2 exs., (Regd. no.V/A/378), Phanda, BRF, 17.01.2003; 4 exs., (Regd. no.V/A/380), Debrik, Alokpong, BRF, 20.01.2003; 3 exs. (Regd. no.V/A/382), Garovane R., Amphangiri, BRF, 20.01.2003; 4 exs., (Regd. no.V/A/383), Dabril Chirang, BRF, 21.01.2003; 5 exs., (Regd. no.V/A/384), Dabril Chirang, BRF, 21.01.2003; 5 exs., (Regd. no. V/A/386), Khiruri, BRF, 19.01.2003; 13 exs. (Regd.no.V/A/404), Phanda, BRF, 18.01.2003; 11 exs. (Regd. no.V/A/405), Phanda, BRF, 18.01.2003; 11 exs., (Regd. no. V/A/413), Phanda, BRF, 26.04.2003; 1 ex., (Regd.no.V/A/418), BRF, 24.04.2003; 25 exs., (Regd. no.V/A/425), Phanda, BRF, 26.04.2003; 19 exs., (Regd.no.V/A/432), Phanda, BRF, 22.05.2003; 1 ex., (Regd. no. V/A/434), Karonee R., Amphangiri, BRF, 25.05.2003; 3 exs., (Regd. no.V/A/437), Rangacherra BRF, 23.05.2003; 2 exs., (Regd. no. V/A/438), Walbok, BRF, 21.05.2003; 5 exs., (Regd. no.V/A/ 441), Walbok, BRF, 21.05.2003; 2 exs. (Regd. no.V/A/442), Bhawanipore, BRF, 23.05. 2003; 2 exs (Regd. no.V/A/455), BRF, 05.08.2003; 4 exs (Regd. no. V/A/458), Debit Bibra, BRF, 06.08.2003; 3 exs., (Regd. no.V/A/460), Phanda, BRF, 08.08.2003; 1 ex., (Regd. no. V/A/462), Rangdop Ram, BRF, 05.08.2003; 2 exs., (Regd. no. V/A/464), Rangdop Ram, BRF, 05.08.2003; 23 exs., (Regd. no.V/A/467), Phanda, BRF, 07.08.2003; 3 exs., (Regd. no. V/A/471) Karonee R., Amphangiri, 06.08.2003; 2 exs., (Regd. no. V/ A/484), Chikpot chiring, BRF, 19.10.2003; 6 exs., (Regd. no. V/A/485), Phanda, BRF, 16.10. 2003; 3 exs., (Regd. no. V/A/488), Phanda, BRF, 16.10.2003; 6 exs., (Regd. no. V/A/489), Phanda, BRF, 16.10.2003; 2 exs., (Regd. no. V/A/ 490), Phanda, BRF, 16.10.2003; 6 exs., (Regd. no. V/A/ 492), Phanda, BRF, 16.10.2003; 10 exs., (Regd. no. V/A/ 493), Phanda, BRF, 16.10.2003.

Distribution : INDIA: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and also throughout India.

Elsewhere : AFGHANISTAN; BANGLADESH; BHUTAN; MYANMAR; NEPAL; PAKISTAN; SOUTH ARABIA; SRI LANKA.

Remarks : *Euphlyctis hexadactylus* is distinguished from its nearest species *cyanophlyctis* on the basis of the former possessing double row of porous lines on abdomen.

5. *Fejervarya limnocharis* (Gravenhorst, 1829)

1829. *Rana limnocharis* Gravenhorst, *Del. Mus. Zool.*: 42 (Type locality: "Java", Indonesia).

Material examined : 3 exs., (Regd. no.V/957), BRF,19.02.1971; 1 ex., (Regd. no. V/9050), Simsang R., BRF, 21.08.1983; 3 exs., (Regd. no. V/A/341), Karonee R., Amphangiri, BRF, 07.11.2002; 1 ex., (Regd. no.V/A/343), Phanda BRF, 06.11.2002, 3 exs., (Regd. no.V/A/346), Phanda, BRF, 06.11.2002; 3 exs., (Regd. no. V/A/347), Khiruri, BRF, 09.11.2002; 2 exs., (Regd. no.V/A/355), BRF, on the way to Angratoli, 31.08.2002; 2 exs., (Regd. no. V/A/358), BRF, 31.08.2002; 2 exs., (Regd. no. V/A/361), Phanda, BRF,28.08. 2002; 1 ex., (Regd. no. V/A/363), On way to Rongara, BRF, 29.08.2002; 1 ex., (Regd. no. V/A/412), BRF, 28.04.2003; 2 exs., (Regd. no.V/A/436), Rangacherra, BRF, 23.05.2003; 1 ex., (Regd. no.V/A/439), Binapani BRF, 23.05.2003; 1 ex., (Regd. no. V/A/443), Walbok, BRF, 21.05.2003; 2 exs., (Regd. no. V/A/456), BRF, 05.08.2003; 5 exs., (Regd. no. V/A/459), Debit Bibra, BRF, 06.08.2003; 3 exs., (Regd. no. V/A/463), Rangdop Ram, BRF, 05.08.2003; 1 ex., (Regd. no. V/A/466), Phanda, BRF, 07.08.2003; 1 ex., (Regd. no.V/A/483), Chikpotchiring, BRF, 19.10.2003; 2exs., (Regd. no. V/A/486), Phanda, BRF, 07.08.2003; 1ex., (Regd. no.V/A/518), Khiruri, BRF,19.012003; 1 ex., (Regd. no.V/A/519), Phanda , BRF, 26.04.2003; 2 exs., (Regd. no. V/A/520), BRF, 24.04.2003; 3 exs. (Regd. no. V/A/521), Phanda, BRF, 26.04.2003; 1 ex., (Regd. no. V/A/522), Rangdop Ram, BRF, 05.08.2003; 1 ex., (Regd. no. V/A/526), BRF, 24.04.2003; 8 exs., (Regd. no. V/A/530), BRF, 27.04.2003; 2 exs., (Regd. no. V/A/ 532), Karonee R., Amphangiri, BRF, 06.08.2003; 11 exs., (Regd. no.V/A/ 536), BRF, 27.04.2003; 2 exs., (Regd. no. V/A/537), BRF, 27.04. 2003.

Distribution : INDIA : Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and also throughout India.

Elsewhere : BANGLADESH; BORNEO, CHINA, INDONESIA; JAPAN; JAVA; MALAY PENINSULA; MYANMAR; NEPAL; PAKISTAN; PHILIPPINES; SRI LANKA; SUMATRA; TAIWAN; THAILAND; VIETNAM.

Remarks : Commonly occurring species, but its status is vulnerable.

6. *Fejervarya teraiensis* (Dubois, 1984)

1984. *Rana (Fejervarya) teraiensis* Dubois, 1984. *Alytes*, 3 : 143-159.

Material examined : 1ex., (Regd. no.V/ A/ 472), BRF, 24.04.2003; 2 exs., (Regd. no.V/A/473), Karonee R., Amphangiri, BRF, 06.08.2003; 1 ex., (Regd. no. V/A/474), Rangdop Ram, BRF, 05.08.2003; 6 exs., (Regd. no. V/A/475), BRF, 08.08.2003; 1 ex., (Regd. no.V/A/476), Rama village, BRF, 08.08.2003; 3 exs., (Regd. no. V/A/477), Debit Bibra, BRF, 06.08.2003; 5 exs., (Regd. no. V/A/478), Phanda, BRF, 26.04.203; 1 ex., (Regd. no. V/A/523), Rangacherra, BRF, 23.05.2003; 1 ex., (Regd. no. V/A/524), Rama village, BRF, 08.08.2003; 2 exs., (Regd. no. V/A/525), BRF, 24.04.2003 ; 3 exs., (Regd. no. V/A/531), BRF, 27.04.2003; 6 exs., (Regd. no. V/A/533), Karonee R., Amphangiri, BRF, 06.08.2003; 4 exs., (Regd. no. V/A/535), BRF, 27.04. 2003; 4 exs., (Regd. no. V/A/538), BRF, 27.04.2003.

Distribution : INDIA: Meghalaya, Mizoram, Manipur, Tripura Nagaland.

Elsewhere : NEPAL

Remarks : Closely related to *F. limnocharis* having various morphological differences. (Mathew and Sen, 2004)

7. *Hoplobatrachus tigerinus* (Daudin, 1803)

1803. *Rana tigerina* Daudin, *Hist. Rain.Gren. Crap.*, : 64. (Type locality : "Bengal")

Material examined : 1 ex., (Regd. no. V/A/491), Phanda, BRF, 16.10.2003.

Distribution : INDIA : Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and also throughout India.

Elsewhere : BANGLADESH; CHINA; INDO CHINA; MADAGASCAR (Introduced); MYANMAR; NEPAL; PAKISTAN; SRI LANKA.

Remarks : Not common in occurrence. It's status is at present vulnerable.

8. *Limnonectes laticeps* (Boulenger, 1882)

1882. *Rana laticeps* Boulenger, *Cat.Batra.Sal.Brit. Mus.*, London : 20 (Type locality : Khasya and Bengal, India).

Material examined : 1 ex., (Regd. no. V/A/379), Dabrik, Alokpong, BRF, 20.01.2003, 1 ex., (Regd. no. V/A/381) Garovane R., Amphangree, BRF, 20.01.2003; 1 ex., (Regd. no. V/A/385), Khiruri , BRF, 19.01.2003; 4 exs., (Regd. no. V/A/387), Shorae, BRF, 20.01.2003; 1 ex., (Regd. no.V/A/388), Khiruri, BRF, 19.01.2003; 1 ex., (Regd. no.V/A/429), Meialla village, BRF, 25.04.2003; 1 ex.,(Regd. no.V/A/435), Karonee R., Amphangiri, BRF, 25.05.2003; 2 exs., (Regd. no. V/A/487), Asemchiring, BRF, 18.10.2003.

Distribution : INDIA: Arunachal Pradesh, Assam, Meghalaya, West Bengal.

Elsewhere : BANGLADESH, BORNEO, MALAYA; MYANMAR; THAILAND.

Remarks : Commonly occurring in the area under report.

9. *Occidozyga borealis* (Annandale, 1912)

1912. *Micrixalus borealis* Annandale, *Rec. Indian Mus.*, **8**(1) : 10-12 (Type locality : "Rotung, Arunachal Pradesh, India).

Material examined : 2 exs., (Regd. no. V/A/337), Karonee R., Amphangree, BRF, 08.11.2002.

Distribution : INDIA : Arunachal Pradesh, Meghalaya, Nagaland, Eastern Himalayas.

Elsewhere : CHINA.

Remarks : This species was rediscovered after about 90 years of its original description (Mathew and Sen, 2003). It's status is endangered.

Family MEGOPHRYIDAE

10. *Scutigera sikimmensis* (Blyth, 1854)

1854. *Bombinator sikimmensis* Blyth, *J. Asiat. Soc. Bengal*, **23** : 300 (Type locality : Sikkim, India).

Material examined : 3 exs., (Regd. no. V/A/ 544), BRF, 28.04.2003.

Distribution : INDIA: Meghalaya, Nagaland, West Bengal, Sikkim.

Elsewhere : BHUTAN; CHINA; MYANMARA; NEPAL; TIBET.

Remarks : Not very common in occurrence.

Family MICROHYLIDAE

11. *Microhyla berdmorei* (Blyth, 1856)

1856. *Engystoma(?) berdmorei* Blyth, *J. Asiatic Soc. Bengal*, **24** : 720 (Type locality : Pegu, Burma).

Material examined : 1 ex., (Regd. no. V/A/658), Nikrangawa village, BRF, 05.01.2006.

Distribution : INDIA : Arunachal Pradesh, Assam, Meghalaya, Mizoram, Tripura.

Elsewhere : BANGLADESH; BORNEO; CAMBODIA; CHINA; INDOCHINA; INDONESIA; LAOS; MALAYSIA; MYANMAR; SUMATRA; THAILAND; VIETNAM.

Remarks : Not common in the area under report.

12. *Microhyla ornata* (Dumeril and Bibron, 1841)

1841. *Engystoma ornatum* Dumeril and Bibron, *Exp. Gen.*, **8** : 745 (Type locality: "Malabar Coast", Kerala, India).

Material examined : 1 ex., (Regd. no. V/A/457), Debit Bibra, BRF, 27.08.2003.

Distribution : INDIA : Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and also throughout India.

Elsewhere : BANGLADESH; BHUTAN; CHINA; INDO CHINA; JAPAN; MALAYSIA; MYANMAR; NEPAL; PAKISTAN; TAIWAN.

Remarks : Not very common in the area under report.

Family RANIDAE

13. *Amolops formosus* (Gunther, 1876)

1876. *Polypedates formosus* Gunther, *Proc. Zool. Soc. London* : 570 (Type locality : "Khasya" India).

Material examined : 1 ex., (Regd. no. V/A/ 494), Bolbokchirang, BRF, 15.10.2003.

Distribution : INDIA: Arunachal Pradesh, Meghalaya, Nagaland, Punjab, Sikkim, West Bengal, Uttar Pradesh.

Elsewhere : NEPAL.

Remarks : This species has its type locality in Khasi Hills (Meghalaya).

14. *Amolops gerbillus* (Annandale, 1912)

1912. *Rana gerbillus* Annandale, *Rec. Indian Mus.*, 8(1) : 10. (Type locality : Yembung, Abor foot hills at an altitude of 1100 feet, Arunachal Pradesh, India).

Material examined : 1 ex., (Regd. no. V/A/ 357), BRF, 30.08.2004.

Distribution : INDIA : Arunachal Pradesh, Assam, Meghalaya, Mizoram, West Bengal.

Elsewhere : CHINA; MYANMAR; TIBET.

Remarks : Collected from rock on the streamlet.

15. *Amolops marmoratus* (Blyth, 1855)

1855. *Polypedates* (?) *marmoratus* Blyth, *J. Asiat. Soc. Bengal*, 24 : 187-188.

Material examined : 4 exs., (Regd. no. V/A/ 444), Rongkhumang, BRF, 24.05.2003.

Distribution : INDIA : Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, West Bengal.

Elsewhere : CHINA; MYANMAR; NEPAL; TIBET; THAILAND.

Remarks : Collected from the rock near river.

16. *Hylarana erythraea* (Schlegel, 1837)

1837. *Hyla erythraea* Schlegel, *Abbild* : 27 (Type locality : "Java", Indonesia).

Material examined : 1 ex., (Regd. no. V/A/336), Karonee R., Amphangree, BRF, 08.11.2002; 1 ex., (Regd. no.V/A/424), Phanda, BRF, 26.04.2003.

Distribution : INDIA: Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland, West Bengal.

Elsewhere : BORNEO; CELEBES (Introduced); INDO CHINA; INDONESIA; MALAY PENINSULA; PHILIPPINES; MYANMAR; THAILAND; VIETNAM.

Remarks : Not common in occurrence.

17. *Hylarana leptoglossa* (Cope, 1868)

1868. *Hylarana leptoglossa* Cope, *Proc. Acad. Nat. Sci. Philadelphia* : 139 (Type locality : "Assam", India).

Material examined : 2exs., (Regd. no.V/A/350), BRF, 30.08.2002 ; 1ex., (Regd. no.V/A/ 353), Baghmara on way to Angratoli RF), 31.08.2002; 4 exs., (Regd. no.V/A/ 415), BRF, 24.04.2003; 2exs., (Regd. no.V/A/417), Phanda, BRF, 26.04.2003; 2 exs., (Regd. no.V/A/420), BRF, 24.04.2003; 6 exs. (Regd.no.V/A/421), BRF, 26.04.2003; 5 exs., (Regd. no.V/A/426), BRF, 27.04.2003; 1ex., (Regd.no.V/A/431), BRF, 27.04.2003; 1ex. (Regd. no. V/A/440), Binapani, BRF, 23.05.2003; 2 exs., (Regd. no.V/A/461), Rangdop Ram, BRF, 05.08.2003; 2 exs., (Regd. no.V/A/468), Karonee R., Amphangree, BRF, 06.08.2003.

Distribution : INDIA: Assam, Meghalaya.

Elsewhere : MYANMAR; THAILAND; VIETNAM.

Remarks : Commonly occurring in the region under report.

Family RHACOPHORIDAE

18. *Polypedates leucomystax* (Gravenhorst, 1829)

1829. *Hyla leucomystax* Gravenhorst, *Syst. Rept.*, : 31 (Type locality : "Java")

Material examined : 1 ex., (Regd. no.V/A/414), BRF, 27.04.2003; 1 ex., (Regd. no. V/A/416), BRF, 24.04.2003; 2 exs., (Regd. no. V/A/419), BRF, 24.04.2003; 2 exs., (Regd. no. V/A/422), Phanda, BRF, 26.04.2003; 9 exs., (Regd. no.V/A/423), Phanda, BRF, 26.04.2003; 1 ex., (Regd. no.V/A/427), BRF, 27.04.2003; 1 ex., (Regd. no.V/A/428), Meialla village, BRF, 25.04.2003; 4 exs., (Regd. no.V/A/430), BRF, 27.04.2003; 10 exs., (Regd. no.V/A/452), Phanda road, BRF, 07.08.2003; 2 exs. (Regd. no.V/A/470), Karonee R., Amphangree, BRF, 08.08.2003.

Distribution : INDIA: Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Gujrat, Nicobar Islands, Sikkim, West Bengal.

Elsewhere : BORNEO; CHINA; JAPAN (Introduced); JAVA, MALAY PENINSULA; MYANMAR; NEPAL; PHILIPPINES; SINGAPORE; SRI LANKA; SUMATRA; TAIWAN; THAILAND.

Remarks : Occurring throughout North Eastern States.

SUMMARY

There are 18 species of amphibia under 12 genera, 6 families and 1 order. Status wise 2 vulnerable species (*F.limnocharis*, *H.tigerinus*)and 1 endangered species (*O. borealis*) are occurring in the area under report.

REFERENCES

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- Mathew, Rosamma and Nibedita Sen, 2003. Rediscovery of *Micrixalus borealis* Annandale,1912 (Ranidae : Anura : Amphibia) from Meghalaya, India. *Cobra*, **53** : 1-4.
- Mathew, Rosamma and Nibedita Sen, 2005. *Fejervarya teraiensis* (Dubois) (Ranidae : Anura : Amphibia). *Cobra*, **59** : 1-4.

REPTILIA

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INTRODUCTION

Twenty six examples of reptiles were collected from Baghmara Reserve Forest during the eight surveys conducted between August 2002 to January 2006. These belong to 15 species under 13 genera and 7 families. One example was collected earlier during February 1971. One krait collected by the Divisional Forest Officer, Balpakram, from his office at Baghmara represented the family Elapidae, making thereby a total of 16 species under 14 genera and 8 families. On two occasions the Indian Monitor lizard, *Varanus bengalensis* was sighted in the forest : once basking in the sun and the second time in the flooded paddy field. This report does not give a total picture of the reptile fauna of the Baghmara Reserve Forest as it has not been thoroughly and exclusively surveyed for its reptile fauna. Systematic account that follows is after Das (1997).

SYSTEMATIC ACCOUNT

Phylum CHORDATA

Class REPTILIA

Order SAURIA

Family GEKKONIDAE

1. *Cyrtodactylus khasiensis* (Jerdon)

1870. *Pentadactylus khasiensis* Jerdon, *P. Asiat. Soc. Beng.*, p. 75

Material examined : 1 ex. , (Regd. no. VR/ERS/ZSI/71), BRF, 29.08.2002.

Distribution : INDIA : Meghalaya, West Bengal

Elsewhere : MYANMAR.

2. *Cosymbotus platyurus* (Schneider)

1792. *Stellio platyurus* Schneider, *Amphib. Physiol.*, ii, p. 30.

Material examined : 1 ex., (Regd. no.VR/ERS/ZSI/84),BRF, (night collection), 24.04.2003.

Distribution : INDIA : Arunachal Pradesh, Meghalaya, Sikkim, West Bengal.

Elsewhere : FORMOSA; HONGKONG; INDO-CHINA; NEPAL; SRI LANKA.

3. *Hemidactylus frenatus* Schlegel

1836. *Hemidactylus frenatus* Schlegel, *Erp. Gen.*, iii, p. 366.

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI / 72), BRF, 29.08.2002 ; 1 ex., (Regd. no. VR/ERS/ ZSI/ 73), on way to Rongara, 22 kms from Phanda, BRF, 29.08.2002.

Distribution : INDIA: Assam, Manipur, Meghalaya, Tripura, Southern India, West Bengal.

Elsewhere : AFRICA; AUSTRALIA; HAINAN; HONGKONG; INDO-CHINA; MALAY LANKA; ST. HELENA; YUNNAN.

Family AGAMIDAE

4. *Calotes versicolor* (Daudin)

1802. *Agama versicolor* Daudin, *Hist. Nat. Rept.*, iii. p. 395

Material examined : 1 ex., (Regd. no. VR/ERS/ ZSI/68 a), on way to Rongara, 22 kms from Phanda, BRF, 29.08.2002 ; 1 ex., (Regd. no. VR/ERS/ZSI/85) , BRF, 28.04.2003 ; 2 exs., (Regd. no.VR/ERS/ZSI/86), Meialla village, BRF, 25.04.2003 ; 1 ex., (Regd.no. VR/ERS/ZSI/98), Chikpot Chiring, BRF, 19.10.2003.

Distribution : INDIA: Throughout India

Elsewhere : AFGHANISTAN; CHINA; HAINAN; HONGKONG; INDO-CHINESE SUB REGIONS; MALAYA PENINSULA ; SRI LANKA; SUMATRA.

5. *Ptyctolaemus gularis* (Peters)

1864. *Otocryptis (Ptyctolaemus) gularis* Peters, *Mon. Akad. Berlin*, p. 386.

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI/ 89), Walbok, BRF, 21.05.2003

Distribution : INDIA : Meghalaya

Elsewhere : NORTH CHINA HILLS.

Family SCINCIDAE

6. *Mabuya carinata* (Schneider)

1801. *Scincus carinatus* Schneider, *Hist. Amphib.*, ii, p. 183.

Material examined : 1ex., (Regd. no.VR/ERS/ZSI/97),Chikpot Chiring, BRF, 19.10.2003.

Distribution : INDIA : Meghalaya, Mizoram, Peninsular India,West Bengal.

Elsewhere : SRI LANKA.

7. *Mabuya macularia* (Blyth)

1853. *Euprepes macularius* Blyth, *J. Asiat. Soc. Beng.*, xxii, p. 652.

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI/1014), Dobigiri, BRF, 19.02.1971

Distribution : INDIA : Assam, Meghalaya, Bihar, Orissa, Uttar Pradesh, West Bengal.

Elsewhere : ANNAM; CAMBODIA; MALAY PENINSULA; MYANMAR; SIAM.

8. *Mabuya multifasciata multifasciata* (Kuhl)

1820. *Scincus multifasciatus* Kuhl, *Beitr. Zool. Vergl. Anat.*, p. 126.

Material examined : 1ex., (Regd. no. VR/ERS/ZSI/69), BRF, 31.08.2002 ; 1 ex., (Regd. no. VR/ERS/ZSI/ 88), Phanda, BRF, 26.04.2003 ;

Distribution : INDIA : Assam, Manipur, Meghalaya, Nagaland, Nicobar Islands, West Bengal.

Elsewhere : EAST INDIES; HAINAN; MALAY PENINSULA; NEW GUINEA; PULO CONDORE; TONGKING; YUNNAN.

9. *Sphenomorphus maculatus* (Blyth)

1853. *Lissonota maculata* Blyth, *J. Asiat. Soc. Beng.*, xxii, p. 653.

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI/83), BRF, 25.04.2003 ; 1 ex., (Regd. no. VR/ERS/ZSI/99), Asem Chiring , BRF, 18.10.2003 ; 1 ex., (Regd. no. VR/ERS/ZSI/100) , Gemsing Chiring, BRF, 17.10.2003; 2 exs., (Regd. no. VR/ERS/ ZSI/ 101), Chikhasen, BRF, 18.10.2003.

Distribution : INDIA : Assam, Meghalaya, Mizoram, Nagaland, Andaman and Nicobar Islands, West Bengal

Elsewhere : ANNAM; CAMBODIA; MYANMAR; SIAM; YUNNAN

Order SERPENTES

Family TYPHLOPIDAE

10. *Typhlops diardi* Schlegel

1839. *Typhlops diardi* Schlegel, *Abbild. Amphib.*, p. 39.

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI/74), BRF, 28.08.2002.

Distribution : INDIA : Assam, Meghalaya, Nagaland, West Bengal.

Elsewhere : FRENCH INDO- CHINA; MALAYA PENINSULA AND ARCHIPELAGO; MYANMAR; SIAM.

Family COLUBRIDAE

11. *Amphiesma stolatum* (Linnaeus)

1758. *Coluber stolatus* Linnaeus, *Syst. Nat.*, 10 th Ed. p. 219.

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI/90), Dabit Bibra, BRF, 06.08.2003.

Distribution : INDIA : Meghalaya and also throughout India.

Elsewhere : CHINA; HAINAN; INDO- CHINA; PAKISTAN; SRI LANKA.

12. *Chrysopelea ornata* (Shaw)

1802 *Coluber ornatus* Shaw, *Gen. Zool.*, iii. p. 477.

Material examined : 1 ex., (Regd. no.VR/ERS/ZSI/106), Asam Chiring, BRF, 18.10.2003

Distribution : INDIA : Meghalaya, Bihar, Orissa, Western Ghats, West Bengal.

Elsewhere : CHINA; MYANMAR; SRI LANKA; THE WHOLE OF INDO-CHINESE SUB REGION; TONG- KING.

13. *Lycodon aulicus* (Linnaeus)

1754. *Coluber aulicus* Linnaeus, *Mus. Adolph. Frider.*, i. p. 29

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI/ 114), Baghmara Circuit House, 08.08. 2003.

Distribution : INDIA : Assam, Meghalaya and also throughout India

Elsewhere : CELEBES ; CHINA; INDO-CHINA; HONGKONG; MALDIVES; MALAY PENINSULA AND ARCHIPELAGO; MYANMAR; NEPAL ; SRI LANKA.

14. *Lycodon jara* (Shaw)

1802. *Coluber jara* Shaw, *Gen. Zool.*, iii. p. 525

Material examined : 1 ex., (Regd. no. VR/ERS/ZSI/263), BRF, August, 2005.

Distribution : INDIA : Assam, Meghalaya, Orissa, Tamil Nadu and West Bengal.

Family ELAPIDAE

15. *Bungarus niger* Wall

1908. *Bungarusniger* Wall, *J. Bombay nat. Hist. Soc.*, xviii, p. 715

Material examined : 1 ex., in the office of the DFO, Balpakram at Baghmara.

Distribution : *In North East India* : Assam, Meghalaya and also Eastern Himalayas.

Family CROTALIDAE

16. *Trimeresurus popeorum* Smith

1937. *Trimeresurus popeorum* Smith, *J. Bombay nat. Hist. Soc.*, xxxix. p. 730.

Material examined : 1 ex., (Regd. no.VR/ERS/ZSI/68), Machekchiring, BRF, 08.11.2002

Distribution : INDIA : Meghalaya , West Bengal

Elsewhere : BORNEO ; MALAY PENINSULA; MYANMAR; SIAM; SUMATRA.

Remarks : Recorded for the first time from South Garo Hills district.

SUMMARY

So far, 16 species of reptilia belonging to 14 genera under 8 families and 2 orders are occurring in the area.

REFERENCES

Das, I. 1997. Checklist of the reptiles of India with English common names. *Hamadryad*, **22** : 32 -45

APPENDIX

Different groups of faunal elements which are not collected during the study period but reported/recorded from the area are also incorporated for a comprehensive account and mentioned below (Fauna of Meghalaya, ZSI, Part 1, 3, 4, 5, 6, 7, 8, 9) :

Phylum NEMATODA
Class SECERNENTEA
Order TYLENCHIDA
Family TYLENCHIDAE

1. *Tilenchus filiformes* (Bustschili)

Family PRATYLENCHIDAE

2. *Hirshmanniella gracilis* (De Man)

Family COSMOCERCIDAE

3. *Oxysomatium macintoshii* (Stewart)

Family ASCARIDIIDAE

4. *Ascaridia galli* (Schrank)

Family CHABERTIIDAE

5. *Oesophagostomum (Oesophagostomum) dentatum* (Rudolphi)

6. *Oesophagostomum (Proteracaecum) columbianum* (Curtice)

7. *Oesophagostomum (Hysteracrum) asperum* Railliet

Phylum MOLLUSCA
Class GASTROPODA
Order MESOGASTROPODA
Family VIVIPARIDAE

1. *Bellamyia bengalensis form balteata* (Benson)

2. *Pila globosa* (Swainson)

3. *Pila theobaldi* (Hanley)

4. *Brotia (Antimelania) costuta* (Rafinesque)

5. *Paludomus (Paludomus) blanfordiana* Nevill

6. *Paludomus (Paludomus) regulata* Benson

Order ARCHAEOGASTROPODA

Family HELICINIDAE

7. *Pleuropoma arakanensis* Blanford
8. *Cyathopoma (P.) garoense* Godwin-Austen
9. *Pearsonia hispidum* Pearson
10. *Pterocyclus parvus* (Pearson)
11. *Pupina imbricifera* Benson
12. *Gastroptychia insignis* (Godwin-Austen)
13. *Oxytes oxytes* (Benson)

Phylum ARTHROPODA

Class INSECTA

Order COLLEMBOLA

Family ENTOMOBRYOIDEA

Subfamily CYPHODERINAE

1. *Cyphoderopsis gracilis* Carpenter
Subfamily ENTOMOBRYINAE
2. *Lepidocyrtus magnificus* Carpenter
3. *Lepidocyrtus exploratorius* Carpenter

Order ODONATA

Family COENAGRIONIDAE

1. *Ceriagrion coromendilianum* (Fabr.)

Family GOMPHIDAE

2. *Paragomphus lineatus* (Selys)

Family LIBELLULIDAE

3. *Orthetrum Sabina Sabina* (Drury)
4. *Pantala flavescens* (Fabricius)

Order ORTHOPTERA

Superfamily TETRIDOIDEA

Family TETRIGIDAE

1. *Ergotettix guntheri* Steinmann
Superfamily ACRIDOIDEA
Family PYRGOMORPHIDAE
2. *Atractomorpha crenulata* (Fabricius)
3. *Atractomorpha burri* Bolivar

Family ACRIDIDAE

4. *Acrida exaltata* (Walker)
5. *Phlaeoba infumata* (Brunner)
6. *Spathosternum prasiniferum prasiniferum* (Walker)
7. *Euoptacra binghami* Uvarov
8. *Catantops pinguis innotabilis* (Walker)
9. *Stenocatantops splendens* (Thunberg)
10. *Xenocatantops humilis* (Serville)
11. *Ceracris nigricornis nigricornis* (Walker)
12. *Dittopternis venusta* (Walker)
13. *Heteropternis respondens* (Walker)
14. *Locusta migratoria migratorioides* (Riche and Fair)
15. *Phlaeoba infermata* Brunner
16. *Oxya hyla hyla* Serville
17. *Oxyrrhepes obtuse* (de Haan)

Order DERMAPTERA

Family CHELISOCHIDAE

1. *Chelisoche brevipennis* Borelli

FAMILY : FORFICULIDAE

2. *Timmomenus lugens* (Bormans)

Order MANTODEA

Family HYMENOPODIDAE

Tribe ACROMANTINI

1. *Acromantis montana* Giglio-Tos

Family MANTIDAE

Tribe MANTINI

2. *Tenodera aridifolia* (Stoll)

Order ISOPTERA

Family TERMITIDAE

Subfamily APICOTERMITINAE

1. *Odontotermes giriensis* Roonwal and Chhotani
2. *Odontotermes horni* (Wasmann)
3. *Odontotermes redemanni* (Wasmann)

Order HEMIPTERA
 Family APHIDIDAE
 Subfamily APHIDINAE

1. *Aphis citricola* Vander Goot
2. *Aphis craecivora* Koch
3. *Taxoptera citricidus* (Kirkaldy)
4. *Macrosiphoniella seaborni* (Gillette)
5. *Myzus ornatus* Laing
6. *Myzus persicae* (Sulzer)
7. *Myzus siegesbeckicola* Strand
8. *Neomyzus (Neomyzus) circumflexus* Buckton
9. *Perillaphis perillae* (Shingi)
10. *Pleotrichophorus chrysanthemi* (Theobald)

Super Family PENTATOMOIDEA

Family PENTATOMIDAE

11. *Eurydema pulchrum* (Westwood)

Family NEPIDAE

12. *Laccotrephes griseus* (Guerin)

Family NAUCORIDAE

13. *Heleocoris obliquatus* (Spinola)

Family GERRIDAE

Subfamily PTILOMERINAE

14. *Ptilomera laticaudata* (Hardwicke)

Subfamily HALOBATINAE

15. *Metrocoris nigrofasciatus* Distant

Order THYSANOPTERA

Family PHLAEOTHRIPIDAE

1. *Nesothrips lativentris* (Karny)

Order COLEOPTERA

Family CARABIDAE

Tribe BIMBIDION

1. *Bimbidion kara* Andrewes
2. *Bimbidion notatum* Andrewes

3. *Tachys micraulax* Andrewes
4. *Tachys poecilopterus* Bates
5. *Tachys latissimus* var. *gracilis* Motchulsky
Tribe BRACHININI
6. *Pheropsophus scythropur* Andrewes
Family GYRINIDAE
7. *Aulonogyrinus obliquus* (Walker)
Family STAPHYLINIDAE
8. *Philontuhs kempi* Cameron
Order DIPTERA
Family CONOPIDAE
1. *Archiconops erythrocephala* (Fabricius)
Family SARCOPHAGIDAE
2. *Parasarcophaga orchidea* Boettcher
Family TABANIDAE
3. *Tabanus striatus* Fabricius
Family ASILIDAE
4. *Opeatocerus purpurata* (Westwood)
5. *Stichopogon indicus* Joseph and Parui
6. *Ommatius bengalensis* Joseph and Parui
7. *Ommatius meghalayensis* Joseph and Parui
Order LEPIDOPTERA
Family SATYRIDAE
1. *Melanitis phedima* (Stoll)
2. *Melanitis leda* (Drury)
Family NYMPHALIDAE
3. *Precis lamonicas* (Linnaeus)
Family ZYGAENIDAE
4. *Eterusia aedea edocla* (Doubleday)

AVES

37 species and subspecies of birds belonging to 30 genera, 17 families and 9 orders are reported from in and around Baghmara Reserve Forest, South Garo Hills district , Meghalaya.

Class AVES

Order CICONIIFORMES

Family ARDEIDAE

1. *Ardea cinerea rectirostris* Gould
2. *Bubuclus ibis coromandus* (Boddaert)
3. *Egretta intermedia intermedia* (Wagler)
4. *Egretta garzetta garzetta* (Linnaeus)
5. *Nycticorax nycticorax nycticorax* (Linnaeus)

Family CICONIIDAE

6. *Ciconia episcopus episcopus* (Boddaert)

Family THRESKIORNITHIDAE

7. *Threskiornis aethiopica melanocephala* (Latham)

Order ANSERIFORMES

Family ANATIDAE

8. *Anser anser rubrirostris* Swinhoe
9. *Aythya ferina* (Linnaeus)

Order FALCONIFORMES

Family ACCIPITRIDAE

10. *Accipiter nisus nisasimilis* (Tickell)
11. *Pandion haliaetus haliaetus* (Linnaeus)

Order GRUIFORMES

Family RALLIDAE

12. *Porzana pusilla pusilla* (Pallas)
13. *Fulica atra atra* Linnaeus

Order CHARADRIIFORMES

Family JACANIDAE

14. *Hydrophasianus chirurgus* (Scopoli)

Family CHARADRIIDAE

Subfamily CHARADRIINAE

15. *Charadrius dubius curonicus* Gmelin

Subfamily SCOLOPACINAE

16. *Tringa totanus totanus* (Linnaeus)
17. *Tringa nebularia* (Gunnerus)
18. *Tringa glareola* Linnaeus
19. *Tringa hypoleucos hypoleucos* Linnaeus
20. *Gallinago stenura* (Bonaparte)
21. *Gallinago gallinago gallinago* (Linnaeus)

Family GLAREOLIDAE

22. *Glareola pratincola maldivarum* J.R. Forster

Family LARIDAE

23. *Sterna hirundo tibetana* Saunders

Order COLUMBIFORMES

Family COLUMBIDAE

24. *Columba livia intermedia* Strickland

Order CUCULIFORMES

Family CUCULIDAE

25. *Cuculus varius varius* Vahl

Order CORACIIFORMES

Family ALCEDINIDAE

26. *Ceryle rudis leucomelanura* Reichenbach

Order PASSERIFORMES

Family HIRUNDINIDAE

27. *Hirundo rustica tytleri* Jerdon

Family DICRURIDAE

28. *Dicrurus annectans* (Hodgson)
29. *Dicrurus aeneus aeneus* Vieillot

Family MUSCICAPIDAE

Subfamily TIMALIINAE

30. *Trichastoma abbotti abbotti* (Blyth)
 31. *Macronous gularis rubricapilla* (Tickell)
- Subfamily SYLVIINAE
32. *Megalurus palustris toklao* (Blyth)
 33. *Phylloscopus inornatus inornatus* (Blyth)
 34. *Phylloscopus trichiloides viridanus* Blyth

Subfamily TURDINAE

- 35.
- Monticola solitarius pandoo*
- (Sykes)

Family PLOCEIDAE

Subfamily PASSERINAE

- 36.
- Passer domesticus indicus*
- Jardine and Selby

Subfamily ESTRILDINAE

- 37.
- Lonchura malacca atricapilla*
- (Vieillot)

MAMMALIA

30 species and subspecies belonging to 27 genera, 16 families and 8 orders have been reported from Baghmara, South Garo Hills, Meghalaya.

Class MAMMALIA

Order CHIROPTERA

Family PTEROPODIDAE

1. *Rousettus leschenaulti leschenaulti* (Desmarest)
2. *Cynopterus sphinx sphinx* (Vahl)
3. *Eonycteris spelaea spelaea* (Dobson)

Family RHYNOLOPHIDAE

4. *Rhinolophus pusillus blythi* Anderson
5. *Hipposideros lankadiva* Kelaart

Family VESPERTILIONIDAE

- 6.
- Miniopterus schreibersi fuliginosus*
- (Hodgson)

Order PRIMATES

Family CERCOPITHECIDAE

- 7.
- Presbytis pileatus pileatus*
- (Blyth)

Family HYLOBATIDAE

- 8.
- Hylobates hoolock*
- (Harlan)

Order PHOLIDOTA

Family MANIDAE

- 9.
- Manis pentadactyla aurita*
- Hodgson

Order CARNIVORA

Family CANIDAE

10. *Canis aureus* Linnaeus
11. *Cuon alpinus* (Pallas)

Family URSIDAE

12. *Selenarctos thibetanus* (G. Cuvier)
13. *Helarctos malayanus* (Raffles)
14. *Melursus ursinus* (Shaw)
15. *Ailurus fulgens fulgens* F.Cuvier

Family MUSTELIDAE

16. *Arctonyx collaris collaris* F. Cuvier

Family FELIDAE

17. *Felis chaus* Guldenstaedt
18. *Felis temmincki* Vigors and Horsfield
19. *Felis bengalensis bengalensis* Kerr.
20. *Neofelis nebulosa* (Griffith)
21. *Panthera pardus fusca* (Meyer)
22. *Panthera tigris tigris* (Linnaeus)

Order PROBOSCIDAE

Family ELEPHANTIDAE

23. *Elephas maximus indicus* G. Cuvier

Order ARTIODACTYLA

Family SUIDAE

24. *Sus scrofa cristatus* Wagner

Family CERVIDAE

25. *Muntiacus muntjak vaginalis* (Boddaert)
26. *Cervus unicolour equinus* G. Cuvier

Family BOVIDAE

27. *Bos gaurus* H. Smith
28. *Capricornis sumatraensis* (Bechstein)

Family LAGOMORPHA

Family LEPORIDAE

29. *Lepus nigricollis ruficaudatus* Geoffroy

Order RODENTIA

Family MURIDAE

30. *Rattus nitidus nitidus* (Hodgson)

SUMMARY

As per literature 7 species of Nematoda (Fauna of Meghalaya,1999), 13 species of Mollusca (Fauna of Meghalaya,1995), 3 species of Collembola (Fauna of Meghalaya, 1995), 4 species of Odonata (Fauna of Meghalaya,1995), 17 species of Orthoptera (Fauna of Meghalaya,1995), 2 species of Dermaptera (Fauna of Meghalaya, 1995), 2 species of Mantoidea (Fauna of Meghalaya,1995), 3 species of Isoptera (Fauna of Meghalaya, 1995), 15 species of Hemiptera (Fauna of Meghalaya, 1999), 1 species of Thysanoptera (Fauna of Meghalaya, 2000), 8 species of Coleoptera (Fauna of Meghalaya, 2000), 7 species of Diptera (Fauna of Meghalaya, 1998), 4 species of Lepidoptera (Fauna of Meghalaya, 1998, 2000), 37 species of Aves and 30 species of Mammals have so far been reported from the area. (Fauna of Meghalaya, 1995).

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A view of the Baghmara Reserve Forest



An Elephant track in BRF



Kirori river inside the BRF



Carnivorous Pitcher Plant - *Nepenthes khasiana* Endemic to Meghalaya



***Chaca chaca* from Simsang river**



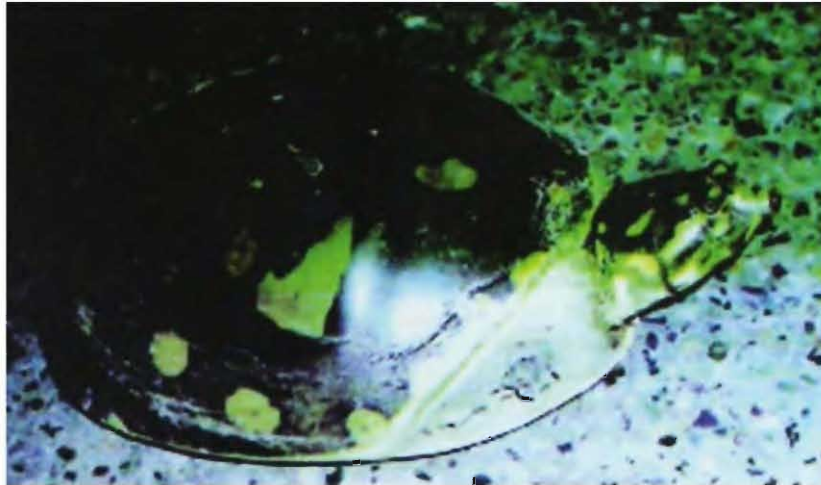
Birds of prey (Vultures) in the BRF



Egg mass of Amphibia in stream bed



Egg mass of *Bufo melanostictus* Schneider gathered in a polythene sheet



Indian Flap Shell turtle *Lissemys punctata* (Bonnaterre)



Wolf Snake - *Lycodon aulicus* (Linnaeus)



Wolf Snake - *Lycodon jara* (Shaw)