INTRODUCTION

During the course of Environmental Impact Assessment Survey of the Teirei river valley Project, Darlak (Mizoram) in February 1984, a team from the Zoological Survey of India, under the leadership of Dr. S. Biswas, collected a small lot of land molluscs. The collection proved very significant as all the species turned out to be first records from Mizoram. This has prompted the authors to present an account of these molluscs.

The total area under the Teirei river valley project is approximately 5,000 hectares. It comprises of two villages viz. Darlak and Naljal, situated in the valley of the river Teirei. It is more or less 3 kms. wide on an average, with a broken contour, which is caused by the drainage pattern and the soil deposition brought by the erosion in the upper reaches.

Darlak is a small village on the bank of the Teirei Lui, situated about 40 kms, as the crow flies, from Aizwal, but 125 kms by road passing through undulating countries. The climate is tropical, temperature and humidity fluctuate inversely during day and night. Natural vegetation is moist tropical evergreen in most parts but in certain sections it is moist tropical deciduous and montane subtropical. Soil is acidic with the pH varying between 5.50 to 6.50.

Mizoram constitutes a part of north-eastern India, which with its by and large wet evergreen vegetations, ample rainfall and forest-clad hill tracts, account for nearly one third of the
A report on terrestrial molluscs of Mizoram is totally lacking. Our knowledge of land molluscs of north-east India in general, is derived chiefly from a few reports by Godwin-Austen (1876), Ghosh (1913), and Gude (1915), in addition to the Fauna of British India, mollusca series by Blanford and Godwin-Austen (1908) and Gude (1914, 1921).

The present paper deals with 23 species of land molluscs under 17 genera and 9 families. While most of the collections were made on grounds among low wild vegetations, or under foliage etc., the specimens of *Girasia* were collected from inside petioles of banana plants at a height of approximately one meter from ground. Obviously, these slug-like molluscs take shelter in such places for humidity, shade and moisture.

**Systematic Account**

*Key to the families*

<table>
<thead>
<tr>
<th>1. Shell with an operculum</th>
<th>...</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell without an operculum</td>
<td>...</td>
<td>(3)</td>
</tr>
<tr>
<td>2. Shell turreted, with irregularly coiled spire, higher than broad</td>
<td>...</td>
<td><strong>Cochlostomatidae</strong></td>
</tr>
<tr>
<td>Shell flat or low conical, with regularly coiled spire, broader than high</td>
<td>...</td>
<td><strong>Cyclophoridae</strong></td>
</tr>
<tr>
<td>3. Shell imperforate, columella abruptly truncate below</td>
<td>...</td>
<td><strong>Glessulidae</strong></td>
</tr>
<tr>
<td>Shell perforate, columella not truncate below</td>
<td>...</td>
<td>(4)</td>
</tr>
<tr>
<td>4. Shell with reflected peristome</td>
<td>...</td>
<td>(5)</td>
</tr>
<tr>
<td>Shell with simple peristome</td>
<td>...</td>
<td>(6)</td>
</tr>
<tr>
<td>5. Shell with eccentric bodywhorl and a well developed parietal lamella</td>
<td>...</td>
<td><strong>Streptaxidae</strong></td>
</tr>
<tr>
<td>Shell with regular bodywhorl, without parietal lamella</td>
<td>...</td>
<td>(7)</td>
</tr>
<tr>
<td>6. Shell smooth, polished, bodywhorl not descending near the aperture</td>
<td>...</td>
<td><strong>Camaenidae</strong></td>
</tr>
<tr>
<td>Shell regularly sculptured, bodywhorl descending near the aperture</td>
<td>...</td>
<td>(8)</td>
</tr>
</tbody>
</table>
7. Shell sinistral, with spiral sculpture ... Corillidae
   Shell dextral, without spiral sculpture ... Bradybaenidae
8. Shell flat, widely umbilicate, aperture depressedly subquadrate. Extremity of foot without overhanging lobe ... Trochomorphidae
   Shell low conical, narrowly umbilicate, aperture lunule, (except in Ausfetzia and Girasia where it is partly internal). Extremity of foot with overhanging lobe ... Ariophantidae

Class: GASTROPODA
Order: MESOGASTROPODA
Family: CYCLOPHORIDAE

Key to the genera

1. Shell discoidal, convex above, concave below, with an incision at the peristome ... Pterocyclus Benson
   Shell globosely conoid, without an incision at the peristome ... (2)
2. Shell small never above 10 mm in diameter, with a sutural tube ... Alyceaus Gray
   Shell moderately large, never below 10 mm in diameter, without a sutural tube ... Cyclophorus Montfort

Genus: Alyceaus Gray, 1850

1. Alyceaus burti Godwin-Austen
   (Fig. 1 & 2)


Material examined: 25 exs., Darlak.

Measurements (in mm):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.90-4.25</td>
<td>4.70-6.50</td>
<td>1.70-2.00</td>
</tr>
</tbody>
</table>

Distribution: India: Arunachal Pradesh, Assam, Mizoram.
Elsewhere: Bhutan.
Fig. 1. *Alycaeus burti* Godwin-Austen (Dorsal view)

Fig. 2. *Alycaeus burti* Godwin Austen (Ventral view)
Genus: **Cyclopborus** Montfort, 1810

Key to the species

Shell with zig-zag marking towards the apex, bodywhorl subangulate, umbilical cavity wide ... *C. theobaldianus* Benson

Shell with zig-zag marking throughout, bodywhorl sharply carinate, umbilical opening contracted ... *C. zebrinus* (Benson)

2. **Cyclopborus theobaldianus** (Benson)
   (Pl. II, figs. 1 & 2)


*Cyclopborus theobaldianus*; Gude, 1921. *Fauna of British India, Mollusca*, 3: 86.

**Material examined:** 22 exs., Darlak.

**Measurements** (in mm):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.50-26.65</td>
<td>26.30-50.70</td>
<td>15.40-22.40</td>
</tr>
</tbody>
</table>

**Distribution:** **India:** Assam, Mizoram.

**Elsewhere:** Burma, Bangladesh.

3. **Cyclopborus zebrinus** (Benson)
   (Pl. II, figs. 6 & 7)


*Cyclopborus zebrinus*; Gude, 1921. *Fauna of British India, Mollusca*, 3: 86.

**Material examined:** 4 exs., Darlak.

**Measurements** (in mm):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.55</td>
<td>23.80</td>
<td>11.00</td>
</tr>
</tbody>
</table>

**Distribution:** **India:** Arunachal Pradesh, Manipur, Maghlaya, Mizoram.

**Elsewhere:** Burma, China and Mergui Archepelago.
Genus: **Pterocyclus** Benson, 1832

4. **Pterocyclus parvus** (Pearson)

(Pl. V, figs. 1 & 2)


*Material examined*: 3 exs., Darlak.

*Measurements* (in mm):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.80-8.35</td>
<td>7.60-28.28</td>
<td>2.60-9.95</td>
</tr>
</tbody>
</table>

*Distribution*: **India**: Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland.

*Elsewhere*: Bangladesh, Burma.

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Family: **Cochlostomatidae**

Genus: **Diplommatina** Benson, 1849

5. **Diplommatina butleri** Godwin-Austen

(Figs. 3 a & b)


*Material examined*: 12 exs., Darlak.

*Measurements* (in mm):

<table>
<thead>
<tr>
<th>Length of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.65-6.10</td>
<td>2.65-3.65</td>
<td>1.00-1.40</td>
</tr>
</tbody>
</table>

*Distribution*: **India**: Manipur, Mizoram

*Elsewhere*: Burma.
Family: Corillidae
Genus: Plectopylis Benson, 1860

Key to the species

Bodywhorl with four rows of hairs, not placed on raised ridges; parietal armature without horizontal fold ... P. affinis Gude

Bodywhorl with five rows of hairs, placed on raised ridges; parietal armature with horizontal fold ... P. plectostoma Benson

Fig. 3. Diplommatina butleri Godwin-Austen (Dorsal & Ventral view)

6. Plectopylis affinis Gude
   (Pl. II, figs. 3 & 4)

Plectopylis affinis Gude, 1897. Science Gossip, N. S. 3; 276, fig. 41.
Material examined: 10 exs. Darlak.
Measurements (in mm);

Height of the shell  Width of the shell  Height of the aperture
4.25-5.66  7.68-9.25  2.55-3.20

Distribution: India: Arunachal Pradesh, Meghalaya, Mizoram. Endemic to north-eastern India.

7. Plectopylis plectostoma (Benson)

(Pl. II, figs. 8 & 9)


Material examined: 8 exs., Darlak.

Measurements (in mm):

Height of the shell  Width of the shell  Height of the aperture
4.15-4.60  7.53-8.30  2.70-3.10.

Distribution: India: Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim, West Bengal (Darjeeling).

Elsewhere: Bangladesh, Burma.

Family: Bradybaenidae
Genus: Plectotropis Martens, 1860.

Following Solem (1966) this genus is tentatively placed under Bradybaenidae.

8. Plectotropis tapeina (Benson)

(Pl. III, figs. 1 & 2)


Material examined: 5 exs., Darlak.

Measurements (in mm):

Height of the shell  Width of the shell  Height of the aperture
6.80-7.60  12-15-15.85  4.00-4.30
MITRA & DEY: Land molluses of Teirei river valley

Distribution: India: Arunachal Pradesh, Assam, Meghalaya, Mizoram.
Elsewhere: Bangladesh, Burma.

Family: Trochomorphidae
Genus: Sivella Blanford, 1863

9. Sivella castra (Benson)
(Pl. III. figs. 3 & 4)

Trochomorpha (Sivella) castra : Gude, 1914. Fauna of British India, Mollusca. 2: 3.

Material examined: 3 exs., Darlak.

Measurements (in mm.):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.25-5.78</td>
<td>10.20-11.38</td>
<td>3.10-3.40</td>
</tr>
</tbody>
</table>

Distribution: India: Arunachal Pradesh, Assam, Meghalaya, Mizoram.
Elsewhere: Burma, Malaysia, Malay Peninsula, Thailand.

Family: Ariophantidae

Key to the genera

1. Shell partly internal, body not enclosed by the shell
   Shell external, body enclosed by the shell

2. Shell ear shaped with distinct coiling
   Shell ovate, without coiling

3. Shell with keeled periphery, distinctly sculptured above
   Shell with rounded periphery, without distinct sculpture

4. Shell with decussating sculpture above, smooth below

   (2) Austenia Nevil
   (3) Girasia Gray
   (4)
   (5) Sesara Albers
Records of the Zoological Survey of India

Shell without decussating sculpture above, costulate below ... *Khasiella* Godwin-Austen

5. Caudal gland at the extremity of foot absent, peripodial groove with a single margin. Dart sac large, cylindrical ... *Staffordia* Godwin-Austen

Caudal gland at the extremity of foot present, peripodial groove with double margin. Dart sac small, globose ... *Macrochlamys* Benson

Genus: *Austenia* Nevill, 1878

10. *Austenia* sp.

The single shell collected was unfortunately damaged during the journey and could not be identified upto the species.

Genus: *Girasia* Gray, 1855

*Key to the species*

Smaller in size, usually not exceeding 40 mm in length; shell horny, dull white in colour ... *G. burtii* (Godwin-Austen)

Bigger in size, usually above 40 mm in length; shell membranaceous, greenish in colour ... *G. radha* (Godwin-Austen)

11. *Girasia burtii* (Godwin-Austen)

(Pl. III, fig. 9)


*Material examined*: 3 exs., Bangwa.

*Measurements* (in mm):

<table>
<thead>
<tr>
<th>Length of the shell</th>
<th>Width of the shell</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.14-32.00</td>
<td>6.50-12.05</td>
</tr>
</tbody>
</table>

*Distribution*: Assam.
12. **Girasia radha** (Godwin-Austen)  
(Pl. V, fig. 7)

*Helicarion (Hoplites) radha* Godwin-Austen, 1876, *J. Asiat. Soc. Beng.*, 45 (2) : 314, pl. 8, fig. 4, (type locality, Bank of radha Pokri, near Narainpur, Darrang, Assam).


**Material examined**: 5 exs., Darlak.

**Measurements** (in mm): Length of the shell 60.75-6520  
Width of the shell 17.50-17.74

**Distribution**: Assam, Mizoram.

**Genus**: **Khasiella** Godwin-Austen, 1899

13. **Khasiella climacterica** (Benson)  
(Pl. III, figs. 5 & 6)


**Material examined**: 6 exs., 4 kms east of Darlak.

**Measurements** (in mm):

<table>
<thead>
<tr>
<th>Height of the Shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.00-8.60</td>
<td>12-20-15.35</td>
<td>7.70-7.80</td>
</tr>
</tbody>
</table>

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

**Elsewhere**: Burma

**Genus**: **Macrochlamys** Benson, 1832

*Key to the species*

- Shell depressed, bodywhorl scarcely wider than the penultimate; smaller in size (usually upto 10 mm in diameter) ... *M. petasus* (Benson)
- Shell depressedly globose, bodywhorl much wider than the penultimate; bigger in size (usually more than 10 mm in diameter) ... *M. vesica* Godwin-Austen
14. **Macrochlamys petasus** (Benson)  
(Pl. V. figs. 4 & 5)


**Material examined**: (i) 5 exs., 4 kms east of Darlak  
(ii) 12 exs., Darlak  
(iii) 5 exs., Naljal.

**Measurements** (in mm):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.7-4.80</td>
<td>6.75-8.70</td>
<td>3.00-4.00</td>
</tr>
</tbody>
</table>

**Distribution**: *India*: Mizoram  
*Elsewhere*: Burmu.

Remarks: This species is recorded for the first time from India. Shells recorded earlier from Assam and Darjeeling by Nevill (1878) were wrongly assigned to this species (Blanford & Godwin-Austen, 1908).

15. **Macrochlamys vesica** Godwin-Austen  
(Pl. III, figs 7&8)


**Material examined**: 14 exs., 4 kms east of Darlak.

**Measurements** (in mm)

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.50-9.95</td>
<td>11.18-14.45</td>
<td>5.70-7.25</td>
</tr>
</tbody>
</table>

**Distribution**: *India*: Arunachal Pradesh, Assam, Meghalaya, Mizoram.  
*Elsewhere*: Bangladesh.

**Genus**: *Sesara* Albers, 1860

Both the species *S. diplodon* and *S. galea* were included under *Sesara* by Blanford & Godwin-Austen-(1908) with some doubt. Following Solem (1966) these are retained under the same genus.
Key to the species

Shell with teeth in the aperture  ...  *S. diplodon* (Benson)
Shell without teeth in the aperture  ...  *S. galea* (Benson)

16. **Sesara diplodon** (Benson)

(Figs. 4-6)


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**Material examined**: 3 exs., Darlak.

**Measurements** (in mm):

<table>
<thead>
<tr>
<th></th>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sesara diplodon</strong></td>
<td>4.35-4.45</td>
<td>6.70-6.80</td>
<td>2.50-2.95</td>
</tr>
</tbody>
</table>

**Distribution**: INDIA: Arunachal Pradesh, Assam, Mizoram.

**Elsewhere**: Bangladesh, Burma, Pakistan.
Fig. 5. *Sesara diplodon* (Benson) (View from apex)

Fig. 6. *Sesara diplodon* (Benson) (Ventral view)
17. *Sesara galea* (Benson)
(Figs. 7, 8 & 9)


*Material examined:* 2 exs. Darlak.

*Measurements* (in mm):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.35-4.45</td>
<td>6.70-6.80</td>
<td>2.50-2.95</td>
</tr>
</tbody>
</table>

![Image of Sesara galea](image)

**Fig. 9.** Sesara galea (Benson) (Ventral view)

**Distribution:** Assam, Meghalaya, Mizoram.

**Genus:** Staffordia Godwin-Austen, 1907

18. **Staffordia daflaensis** Godwin-Austen

(Pl. IV. figs. 1 & 2)

*Helix lubrica* Bs.? Godwin-Austen, 1876, *J. Asiat. Soc. Beng.,* 45 (2): 311, pl. 8, fig. 9.


*Material examined*: 2 exs. Darlak.

*Measurements* (in mm):

<table>
<thead>
<tr>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.60</td>
<td>28.55</td>
<td>10.20</td>
</tr>
</tbody>
</table>

*Distribution*: Arunachal Pradesh, Mizoram.

**Family**: Camaenidae

**Key to the genera**

- Shell higher than broad, aperture ovate ... *Amphidromus* Albers
- Shell broader than high, aperture lunate... *Chloritis* Beck.

19. *Amphidromus sylheticus* (Reeve)

*(Pl. IV, figs. 3 & 4)*

*Bulimus sylheticus* Reeve, 1849. *Conch. Icon.*, pl. 77, fig. 564.


*Material examined*: 4 exs., Darlak.

*Measurements* (in mm):

<table>
<thead>
<tr>
<th>Length of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.50-29.85</td>
<td>15.65-16.15</td>
<td>13.40-14.10</td>
</tr>
</tbody>
</table>

*Distribution*: INDIA: Meghalaya, Mizoram.

*Elsewhere*: Bangladesh,

**Genus**: Chloritis Beck, 1838

20. *Chloritis delibrata* var. *fasciata* (Godwin-Austen)

*(Pl. IV, figs. 5 & 6)*


*Material examined*: 1 ex., Naljal.
Figs. 1 & 2. Showing general ecology of Darlak (Mizoram)
<table>
<thead>
<tr>
<th>Name of species</th>
<th>View</th>
<th>Height of the shell</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Cyclophorus theobaldiaus</em> Benson</td>
<td>Dorsal</td>
<td>25.10 mm</td>
</tr>
<tr>
<td>2. <em>Cyclophorus theobaldiaus</em> Benson</td>
<td>Ventral</td>
<td>25.10 mm</td>
</tr>
<tr>
<td>3. <em>Plectopylis affinis</em> Gude</td>
<td>Dorsal</td>
<td>5.66 mm</td>
</tr>
<tr>
<td>4. <em>Plectopylis affinis</em> Gude</td>
<td>Ventral</td>
<td>5.66 mm</td>
</tr>
<tr>
<td>5. <em>Glessula tenuispira</em> (Benson)</td>
<td>Dorsal</td>
<td>23.00 mm</td>
</tr>
<tr>
<td>6. <em>Cyclophorus zebrinus</em> (Benson)</td>
<td>Ventral</td>
<td>21.55 mm</td>
</tr>
<tr>
<td>7. <em>Cyclophorus zebrinus</em> (Benson)</td>
<td>Dorsal</td>
<td>21.55 mm</td>
</tr>
<tr>
<td>8. <em>Plectopylis plectostoma</em> (Benson)</td>
<td>Ventral</td>
<td>4.60 mm</td>
</tr>
<tr>
<td>9. <em>Plectopylis plectostoma</em> (Benson)</td>
<td>Dorsal</td>
<td>4.60 mm</td>
</tr>
</tbody>
</table>
1. *Plectotropis tapeina* (Benson)
2. *Plectotropis tapeina* (Benson)
3. *Sivella castra* (Benson)
4. *Sivella castra* (Benson)
5. *Khasiella climacterica* (Benson)
6. *Khasiella climacterica* (Benson)
7. *Macrochlamys vesica* Godwin-Austen
8. *Macrochlamys vesica* Godwin-Austen
9. *Girasia burrii* (Godwin-Austen)

<table>
<thead>
<tr>
<th>Name</th>
<th>View</th>
<th>Height of the Shell</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <em>Plectotropis tapeina</em> (Benson)</td>
<td>Dorsal</td>
<td>7.60 mm</td>
</tr>
<tr>
<td>2. <em>Plectotropis tapeina</em> (Benson)</td>
<td>Ventral</td>
<td>7.60 mm</td>
</tr>
<tr>
<td>3. <em>Sivella castra</em> (Benson)</td>
<td>Dorsal</td>
<td>4.45 mm</td>
</tr>
<tr>
<td>4. <em>Sivella castra</em> (Benson)</td>
<td>Ventral</td>
<td>4.45 mm</td>
</tr>
<tr>
<td>5. <em>Khasiella climacterica</em> (Benson)</td>
<td>Dorsal</td>
<td>8.75 mm</td>
</tr>
<tr>
<td>6. <em>Khasiella climacterica</em> (Benson)</td>
<td>Ventral</td>
<td>8.75 mm</td>
</tr>
<tr>
<td>7. <em>Macrochlamys vesica</em> Godwin-Austen</td>
<td>Dorsal</td>
<td>8.60 mm</td>
</tr>
<tr>
<td>8. <em>Macrochlamys vesica</em> Godwin-Austen</td>
<td>Ventral</td>
<td>8.60 mm</td>
</tr>
<tr>
<td>9. <em>Girasia burrii</em> (Godwin-Austen)</td>
<td>Lateral</td>
<td>33.00 mm</td>
</tr>
<tr>
<td>Name</td>
<td>View</td>
<td>Height of the Shell</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>1. <em>Staffordia daflaensis</em> Godwin-Austen</td>
<td>Dorsal</td>
<td>2.95 mm</td>
</tr>
<tr>
<td>2. <em>Staffordia daflaensis</em> Godwin-Austen</td>
<td>Ventral</td>
<td>2.95 mm</td>
</tr>
<tr>
<td>3. <em>Amphidromus sylheticus</em> (Reeve)</td>
<td>Dorsal</td>
<td>31.50 mm</td>
</tr>
<tr>
<td>4. <em>Amphidromus sylheticus</em> (Reeve)</td>
<td>Ventral</td>
<td>31.50 mm</td>
</tr>
<tr>
<td>5. <em>Chloritis delbrata var. fasciata</em> (Godwin-Austen)</td>
<td>Dorsal</td>
<td>4.50 mm</td>
</tr>
<tr>
<td>6. <em>Chloritis delbrata var. fasciata</em> (Godwin-Austen)</td>
<td>Ventral</td>
<td>4.50 mm</td>
</tr>
<tr>
<td>7. <em>Haplopythius burmanicus</em> (Blanford)</td>
<td>Dorsal</td>
<td>4.40 mm</td>
</tr>
<tr>
<td>8. <em>Haplopythius burmanicus</em> (Blanford)</td>
<td>Ventral</td>
<td>4.40 mm</td>
</tr>
</tbody>
</table>
Name | View | Height of the Shell
--- | --- | ---
1. *Pterocyclus parvus* (Pearson) | Dorsal | 8.35 mm
2. *Pterocyclus parvus* (Pearson) | Ventral | 8.35 mm
3. *Glessula gemma* (Reeve) | Dorsal | 7.60 mm
4. *Macroclyum petasus* (Benson) | Dorsal | 4.80 mm
5. *Macroclyum petasus* (Benson) | Ventral | 4.80 mm
6. *Glessula gemma* (Reeve) | Ventral | 7.60 mm
7. *Girasia radha* (Godwin-Austen) | Lateral | 65.20 mm
Measurements (in mm):

<table>
<thead>
<tr>
<th></th>
<th>Height of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.50</td>
<td>19.30</td>
<td>8.20</td>
</tr>
</tbody>
</table>

Distribution: Assam, Meghalaya, Mizoram.

Family: Glessulidae

Key to the genera

Shell ovately conical, with 5-6 whorls, smaller in size (usually up to 7 mm in length) ... G. gemma (Reeve)

Shell turreted, with 10-11 whorls, bigger in size (usually above 7 mm in length) ... G. tenuispira (Benson)

Genus: Glessula Martens, 1860

As suggested by Godwin-Austen (1920) the genus Glessula is placed under the family Glessulidae.

21. Glessula gemma (Reeve)

(Pl. V, figs. 3, 6 & Fig. 10)

Achatina gemma Reeve, 1850. Conch. Icon., 5, pl. 22, fig. 123.


Material examined: 3 exs., 4 kms east of Darlak.

Measurements (in mm):

<table>
<thead>
<tr>
<th></th>
<th>Length of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.60-10.20</td>
<td>3.80-4.86</td>
<td>2.50-3.55</td>
</tr>
</tbody>
</table>

Distribution: Mizoram, West Bengal

22. Glessula tenuispira (Benson)

(Pl. II, fig. 5)


Material examined: 4 exs., Darlak.
Measurements (in mm):

<table>
<thead>
<tr>
<th></th>
<th>Length of the shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aperture</td>
<td>4.20-5.20</td>
<td>5.10-6.08</td>
<td>4.20-5.20</td>
</tr>
</tbody>
</table>

Fig. 10. *Glessula gemma* (Reeve) (Ventral view)


*Family*: Streptaxidae

*Genus*: **Haplopychius** Von Mollendorff, 1906

22. **Haplopychius burmanicus** (Blanford)

(Pl. IV, figs. 7 & 8)


Material examined: 1 ex., Darlak.

Measurements (in mm):

<table>
<thead>
<tr>
<th>Height of the Shell</th>
<th>Width of the shell</th>
<th>Height of the aperture</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.40</td>
<td>7.75</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Remarks: This species is for the first time recorded from India.

Distribution: India: Mizoram.
Elsewhere: Burma

Summary

Twenty three species of land molluscs under 17 genera and 9 families are recorded in this paper. While all the 23 species are new records from Mizoram, two species Macrochlamys petasus (Benson) and Haplopychius burmanicus (Blanford) are new records from India, being hitherto known from Burma. Five species viz. Plectopylis affinis Gude, Girasia burti Godwin-Austen, G. radha Godwin-Austen, Staffordia daflaensis Godwin-Austen and Chloritis delibrata var. fasciata (Godwin-Austen) are endemic to north-eastern region of the country.

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References


GUDE, G. K., 1921. Fauna of British India, Mollusca III, pp. 1-373.
