

## Molluscan Fauna of Surha Tal, District - Ballia (U. P.), India

Rajnish Kumar Sharma\* and Nirupama Agrawal

Department of Zoology, University of Lucknow, Lucknow (U.P.), INDIA

\*Corresponding author. E-mail: rajnish.enviro.80@gmail.com

**Abstract:** Diversity of molluscan fauna of Surha Tal, district Ballia (U.P.) was studied during 2006-08. Twenty species of molluscs were collected. Of these, fourteen species of six genera belong to class Gastropoda, families Viviparidae, Pilidae, Thiaridae, Lymnaeidae and Planorbidae; six species belonging to three genera are of families of the class Bivalvia; Unionidae, Amblemidae and Corbiculidae.

**Keywords:** Mollusc fauna, Surha Tal, Ballia (U.P.)

### INTRODUCTION

The present investigation on Molluscan fauna was carried out during April, 2006- March, 2008. It deals with the commonly occurring molluscs of Surha Tal, district Ballia (U. P.). It is a perennial lake, situated between the parallels 25°48' North and 25°52' North Longitude and 84°8' East and 24°12' East, located about 13 km north of Ballia town of U.P. It covers an area of about 20 Sq. miles i.e., 9450 Acres. In summer, this area shrinks to about 2774 Acres (Pandey *et al.*, 2010). Fresh water molluscs play a significant role in aquatic ecosystem and some of them are edible as well. As is well known, some of them act as intermediate hosts of various parasites. Shells of many are also used in making fancy articles thus of great economic value. Since not much work has

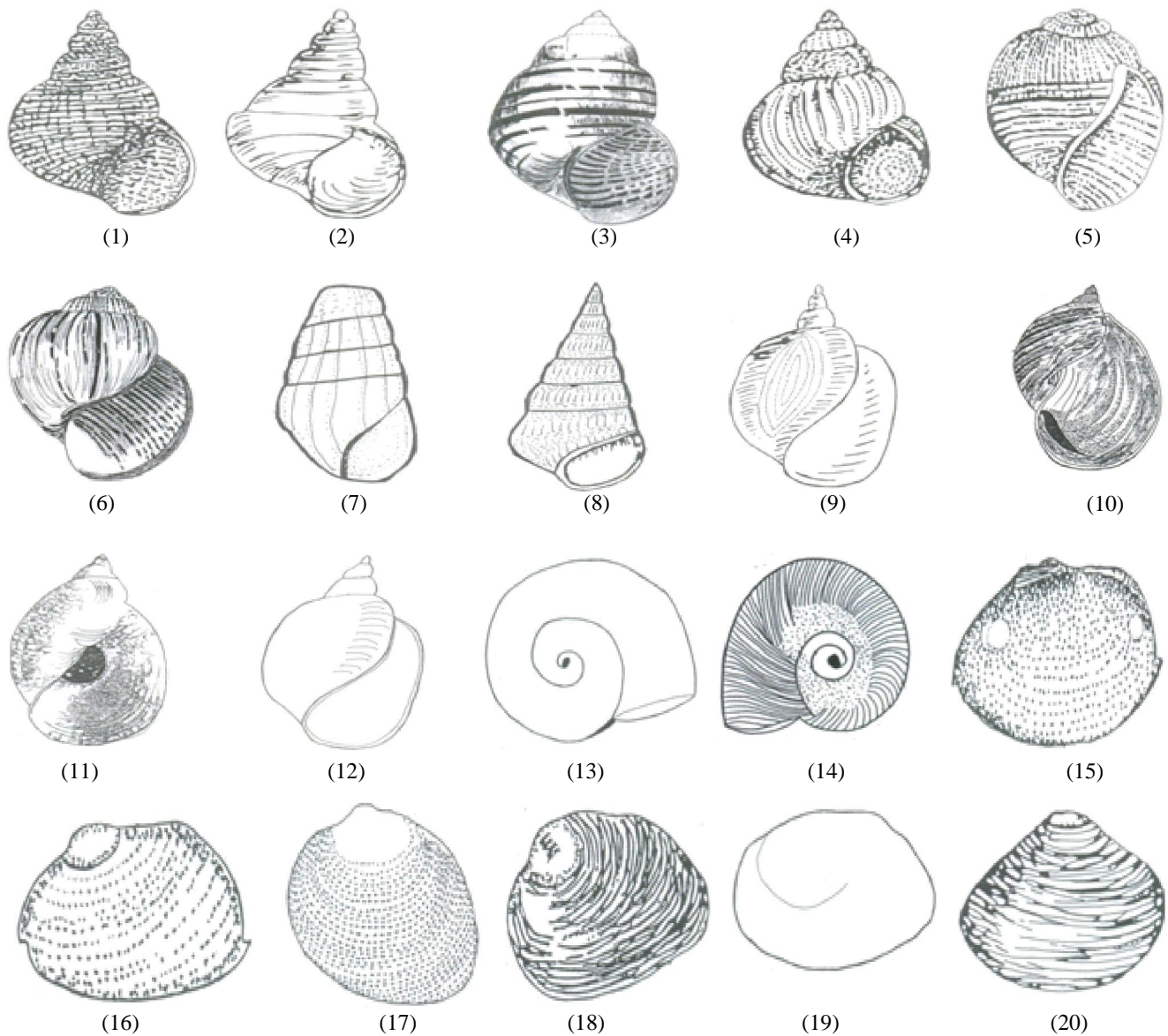
been done on the molluscan fauna of this lake, the present work was undertaken.

### MATERIALS AND METHODS

The molluscs for the present work were collected using gloves, by boats, nylon scoop net, with the help of local fisherman, morning and late evening hours, as the animals settle down during bright Sun. The collected samples were washed and preserved in 5% formalin, brought to the laboratory and studied. Some specimens of each of them were kept alive for several weeks in the laboratory in glass aquaria and earthen pots. They were fed on lettuce. Identification was carried out with the help of *Handbook of Freshwater Molluscs of India* by Subba Rao (1989) and *Handbook on Indian freshwater Molluscs* by Ramakrishna and Dey (2007). Specimens were also taken to the Zoological Survey of India (Z.S.I.) Kolkata

**Table 1.** A list of collected molluscs from Surha Tal, Ballia.

| Class      | Family      | Scientific Name  |
|------------|-------------|--|
| Gastropoda | Viviparidae | 1. <i>Bellamya bengalensis</i> (Lamarck, 1822)                       |
|            |             | 2. <i>Bellamya bengalensis</i> form <i>typica</i> (Lamarck, 1822)    |
|            |             | 3. <i>Bellamya bengalensis</i> form <i>mandiensis</i> (Kobelt, 1909) |
|            |             | 4. <i>Bellamya dissimilis</i> (Muller, 1774)                         |
|            | Pilidae     | 1. <i>Pila globosa</i> (Swainson, 1822)                              |
|            |             | 2. <i>Pila sctuta</i> (Swainson, 1848)                               |
|            | Thiaridae   | 1. <i>Thiara (Thiara) rudis</i> (Lea, 1850)                          |
|            |             | 2. <i>Thiara (Malanoides) tuberculata</i> (Muller, 1774)             |
|            | Lymnaeidae  | 1. <i>L. (Pseud.) acuminata</i> form <i>typica</i> (Lamarck, 1822)   |
|            |             | 2. <i>L. (Pseud.) acuminata</i> form <i>chlamys</i> (Benson, 1836)   |
|            |             | 3. <i>L. (Pseud.) acuminata</i> form <i>patula</i> (Troschel, 1837)  |
|            |             | 4. <i>L. (Pseud.) acuminata</i> form <i>rufescens</i> (Gray, 1822)   |
|            | Planorbidae | 1. <i>Gyraulus convexiusculus</i> (Hutton, 1849)                     |
|            |             | 2. <i>Indoplanorbis exustus</i> (Deshayes, 1834)                     |
| Bivalvia   | Unionidae   | 1. <i>Lamellidens marginalis</i> (Lamarck, 1819)                     |
|            |             | 2. <i>Lamellidens corrianus</i> (Lea, 1834)                          |
|            | Amblemidae  | 1. <i>Parreysia (Parreysia) corugata</i> (Mueller, 1774)             |
|            |             | 2. <i>Parreysia (Parreysia) favidens</i> (Benson, 1862)              |
|            |             | 3. <i>P. (Parreysia) favidens</i> var. <i>marcens</i> (Benson, 1862) |
|            |             | 1. <i>Corbicula striatella</i> (Deshayes, 1854)                      |



**Figs. 1-20** Types of Molluscs in Surha Tal: 1. *Bellamyia bengalensis* (Lamarck, 1822), 2. *B. bengalensis* form *typica* (Lamarck, 1822), 3. *B. bengalensis* form *mandiensis* (Kobelt, 1909), 4. *B. dissimilis* (Muller, 1744), 5. *Pila globosa* (Swainson, 1822), 6. *P. sctuta* (Swainson, 1848), 7. *Thiara* (*Thiara*) *rudis* (Lea, 1850), 8. *T. (Malanoides) tuberculata* (Muller, 1774), 9. *Lymnaea (Pseudosuccinea) acuminata* form *typica* (Lamarck, 1822), 10. *Lymnaea (Pseudosuccinea) acuminata* form *chlamys* (Benson, 1836), 11. *L. (Pseudosuccinea) acuminata* form *patula* (Troschel, 1837), 12. *L. (Pseudosuccinea) acuminata* form *rufescens* (Gray, 1822), 13. *Gyraulus convexiusculus* (Hutton, 1849), 14. *Indoplanorbis exustus* (Deshayes, 1834), 15. *Lamellidens marginalis* (Lamarck, 1819), 16. *L. corrianus* (Lea, 1834), 17. *Parreysia (Parreysia) corugata* (Mueller, 1774), 18. *P. (Parreysia) favidens* (Benson, 1862), 19. *P. (Parreysia) favidens* var. *marcens* (Benson, 1862), 20. *Corbicula striatella* (Deshayes, 1854).

for confirmation and deposition. A list of collected molluscs is given in Table 1.

## RESULTS AND DISCUSSION

This is a record of molluscan fauna of Surha Tal, during two years. Twenty species of molluscs were collected. Of these, fourteen species of six genera belonged to class Gastropoda, families Viviparidae, Pilidae, Thiariidae, Lymnaeidae and Planorbidae; six species belonging to three genera are of families of the class Bivalvia; Unionidae, Amblemidae and Corbiculidae. The earlier

work is that of Lakshman (1976) who has reported only *Pila globosa*, *Viviporus bengalensis*, *Viviporus dissimilis*, *Lamellidens marginalis*, *Lymnaea luteola*, *Lymnaea acuminata*, *Indoplanorbis exustus*, *Alocinma oricula* and *Gyraulus convexiusculus*, from this wetland of district Ballia, U.P. Specimens of *Alocinma oricula* and *Lymnaea luteola* could not be obtained inspite of several efforts. Moreover, *Parreysia (Parreysia) corugata*, *Parreysia (Parreysia) favidens*, *Parreysia favidens* var. *marcens* and *Corbicula striatella* are rarely

found. Molluscs play a vital role in the freshwater environment and are, therefore, a part of freshwater community, having important role in food chain. They are important food for human and also serve as vectors of many diseases of live stock and man. Reckless killing of these animals are to be controlled in this region. However, they are less explored ecologically which can be a part of future study.

#### **ACKNOWLEDGEMENTS**

The authors are indebted to Dr. Ashok Kumar Singh,

Deputy Director, ZSI Kolkata for the help in identification.

#### **REFERENCES**

- Lakshman, Ram (1976) Suraha lake, its Ecology and Fisheries. *The Ind. J. of Zoot.* 17: 31-51.
- Ramakrishna & Dey, A. (2007) *Handbook on Indian freshwater Molluscs*, Zoological Survey of India, Kolkata :1-399.
- Subba Rao, N. V. (1989). *Handbook : Freshwater Molluscs of India*, Zoological Survey of India, Kolkata : 1-289.
- Pandey, K.C. Agrawal, N. and Sharma, R.K. (2010) Fish fauna of Surha Tal of Ballia (U. P.), India *J. App. & Nat. Science*, 2(1): 22-25.