

## MOLLUSCS OF THE SILENT VALLEY

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### INTRODUCTION

Land molluscs of India are a fairly worked-out group. But the present collection is important as it comes from a hitherto unexplored area. The semievergreen forests with moist and shady places offer ideal ecosystem for several species of molluscs to flourish. The collection includes 17 examples identified into 5 species, and most of the species are represented by a single individual each. As the collection was made in the course of a general faunistic survey without paying any special attention to mollusca the true character of the malacofauna of the Silent Valley cannot be brought out in this report. However the collection is interesting as it throws some light on the distribution of certain species. More vigorous search for molluscs will definitely add some more species to the present list.

### Key to families

- |                                                                                |                      |
|--------------------------------------------------------------------------------|----------------------|
| 1. Shell operculate, depressed, widely umbilicated                             | <i>Cyclophoridae</i> |
| Shell non-operculate ... ..                                                    | 2                    |
| 2. Shell small, elongately turreted, columella arched ... ..                   | <i>Glessulidae</i>   |
| Shell small, plate-like to depressedly conoid, thin to moderately thick ... .. | <i>Ariophantidae</i> |

### SYSTEMATIC ACCOUNT

Order MESOGASTROPODA

Family CYCLOPHORIDAE

Genus *Theobaldius* Nevill, 1878

*Theobaldius deplanatus* (Pfeiffer)

*Cyclostoma deplanatum* Pfeiffer, 1854, *Proc. Zool. Soc.*, London, p, 301.

*Theobaldius deplauatus*, Pfeiffer : Gude, 1921, *Fauna Brit. India*, Mollusca, III : 35.

Shell widely umbilicated, depressed, brown with paler splashes here and there ; sculpture restricted to close-set growth markings, whorls 5

rapidly increasing, body whorl perfectly rounded, spire scarcely raised. Aperture circular, oblique, peristome double, the outer slightly reflected. Operculum thin, horny, multispiral but not very closely wound, edges of the whorls rather keeled.

*Material* : One ex., 10 kms. S W. of Valiyaparathodu, 29. 1.. 80. (Coll. Dr. S.K. Bhattacharya).

*Distribution* : Tamil Nadu : Koondah hills, Anamullays, Sispara ghat, Alagarkoil hills ; Kerala : Travancore.

*Remarks* : The keeled edges of the operculum in this species and also in a few other allied species are very typical. This character, together with the very slight notch (reminiscent of the 'wing like process' of the genus *Pterocyclus*) in the outer margin of the peristome in a few species like *T nivicola*, and *T orites*, provides a transition to the genus *Pterocyclus*.

#### Order STYLOMMATOPHORA

##### Family GLESSULIDAE

Genus *Glessula* von Martens, 1850.

*Glessula dikrangense* Godwin-Austen

*Glessula illustris* G.A. : Godwin-Austen, 1876, *J. Asiat. Soc. Beng.*, 45(2) : 315.

*Glessula dikrangense* Godwin-Austen, 1920, *Land and Freshwater Molluscs of India*, 3(1) : 26, pl. 160, fig. 7.

Shell elongate, glossy, thick ochraceous with a slight greenish tinge, sculptured with very fine, close microscopic longitudinal striae, spire turreted, apex obtuse. whorls 8.5, slightly convex, sutures impressed. Aperture vertical, rather oval, columella arched.

*Material* : i) Two exs., Road to Valiyaparathodu, 10. 12. 80. (Coll. Dr. R. S. Pillai). ii) 3 exs., Uku, S. E. of Valiyaparathodu, 29.1.80 (Coll. Dr. S. K. Bhattacharya).

*Distribution* : Arunachal Pradesh, Maharashtra, Karnataka, and Kerala.

*Remarks* : While working out a collection of terrestrial molluscs from Daffa hills, Godwin-Austen (1876), had mistakenly placed a few shells of *Glessula* collected at Naga hills under *G. illustris*. But a

thorough reexamination of the material prompted him to erect a new species and include it under this at a later date. (1920).

Family ARIOPHANTIDAE

Genus *Mariaella* Gray, 1855.

*Mariaella dussumieri* Gray

*Mariaella dussumieri* Gray, 1855, *Cat. Pulm. B.M.* : 63.

*Mariaella dussumieri* Gray : Blanford & Godwin-Austen, 1908, *Fauna Brit. India*, Mollusca : 205, fig. 71.

Shell internal, flatly convex, sometimes solid but usually thin, membranaceous with a small calcified withish apex forming an insipid spire.

Animal yellowish brown, generally with irregular dark blotches. Slug-like, mantle lobes united to form an oval shield which covers the shell completely except for a pin-hole orifice. On the mantle there are two raised lines or ridges, one running from the pin-hole orifice round the left margin of the shell, the other running towards the respiratory orifice, at the right side. Posterior portion of the body behind the shield sharply keeled, ending in a large caudal gland. Peripodial groove distinct. Foot tripartite with obtusely pointed posterior end.

*Material* : i) Three exs., Panthenthodu, 13. 12. 80. (Coll. Dr. R. S. Pillai) ii) 4 exs., Dam site, Kunti R., 17. 1. 80, iii) 2 exs., 5 km. from Mukkali, towards project site, 15. 1. 80. (Coll. Dr. S. K. Bhattacharya.)

*Distribution* : Restricted to the Western Ghats and peninsular India, Sri Lanka.

*Remarks* : Specimens collected from the Silent Valley are all young, measuring upto 22 mm. Full-grown specimens in extended condition normally reach upto 100—120 mm. The maximum size mentioned by Blanford & Godwin-Austen (1908), 20 cms. may be rare.

Genus *Euplecta* Semper, 1870

*Euplecta indica* (Pfeiffer)

*Helix indica* Pfeiffer, 1846, *Symbolae*, 3 : 66.

*Euplecta Indica* (Pfeiffer) : Satyamurti, 1960, *Bull. Madras Govt. Mus.*, 6 No.4 : 109, pl. 8, fig. 3a, 3b-

Shell depressedly turbinate, narrowly perforate, lenticular, strongly sculptured by close oblique ribs, decussated by raised spiral lines, as a result the whole surface appears granulated. The sculpture very faint below. Spire conoid, whorls 5-6, convex, gradually increasing, body whorl strongly keeled at the periphery. Shell rather white, a pale yellowish brown periostracum present, aperture oblique, rather crescent shaped. Peristome thick, columellar margin oblique,

*Material* i) One ex., 10 kms. S. W of Valiyaparathodu, 28. 1. 80. (Coll. Dr. S. K Bhattacharya).

*Distribution* : The genus *Euplecta* is restricted to Peninsular India and Sri Lanka.

*Remarks* : Shell shows remarkable variation in sculpture and general shape. It is very much allied to *E. emiliana* from Sri Lanka. However typical shells of *E. indica* are more convex.

Genus *Macrochlamys* (Benson, 1832) Gray, 1847

*Macrochlamys vilipensa* (Benson)

*Helix vilipensa* Benson, 1853, *Ann. & Mag. Nat. Hist.* (2) : 12 93.

*Macrochlamys vilipensa* (Benson) : Satyamurti, 1960, *Bull. Madras Govt. Mus.*, 6 No. 4 : 102, pl. 11, figs. 3a, 3b.

Shell translucent, glossy, deeply umbilicate, depressedly conoid, smooth, whorls 6, convex, sutures impressed; spire slightly raised, apex obtuse, peristome thin, aperture oblique, broadly crescent shaped, columellar margin a little arched, slightly reflected above.

*Material* : One ex., Dam site, alt. 875 m., 4.12.80. (Dr.R.S. Pillai).

*Distribution* : India : Kerala ; Calcad Hills, Silent Vally ; Sri Lanka.

#### SUMMARY

The small lot of terrestrial molluscs from the Silent Valley comprises of 5 genera and 3 families.

The molluscan fauna of South India in general, shows affinity towards that of Sri Lanka. The present study of the molluscs from Silent Valley also confirms this. Three, out of the five species studied

(viz. *Euplecta indica*, *Mariaella dussumieri* and *Macrochlamys vilipensa*) are known from the Southern India and Sri Lanka. Among these, *M. dussumieri* extends up to Maharashtra. Out of the remaining 2 species while *Theobaldius deplanatus* is restricted to Southern India only *Glessula dikrangense* extends as far north as Arunachal Pradesh.

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