

## A CHECKLIST OF LAND AND FRESHWATER MOLLUSCA OF MAHARASHTRA STATE

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Molluscs occur in various habitats and are divided into freshwater, marine and terrestrial forms. The freshwater molluscs play a significant role in aquatic ecosystems, and some of them are edible. Species like *Bellamyia bengalensis*, *Pila globosa* and *Lamellidens marginalis* are proven food for many aquatic animals and man; some such as *Lamellidens marginalis* and *Lamellidens corrianus* have also been used to produce pearls in some parts of India (Subba Rao & Dey, 1989). Shells of some of molluscs are used for making buttons and in manufacture of poultry food. Some of them are also intermediate hosts for parasites, like *Pila globosa*, *Lymnaea* etc. (Subba Rao, 1989).

Maharashtra state with three biogeographic zones (West Coast, Western Ghats & Deccan plateau) is located between 15°8'-22°1'N and 72°6'-80°9'E with a total area over 3,07,690km<sup>2</sup> and a coast line of 720km in the west. The molluscan fauna of this state has not been studied thoroughly and the available information on the freshwater and land molluscs is scattered. Perusal of literature shows that a few workers like Blanford (1863, 1870, 1880), Preston (1915), Annandale (1919), Annandale and Prashad (1919), Hora (1925), Tonapi and Mulherkar (1963), Tonapi (1971), Subba Rao and Mitra (1979), Subba Rao (1989), Surya Rao *et al.* (2002), Patil (2003), and Patil and Talmale (2003) have made contributions. However, except for Subba Rao and Mitra (1979) there is no updated information available on this group in Maharashtra.

This paper lists altogether 142 species of molluscs with all forms and varieties belonging to 48 genera, under 23 families. This checklist of land and freshwater mollusca of Maharashtra state is based on past and present records, and from recent surveys made in this area by many parties of Western Regional Station, Zoological Survey of India, Pune. There is still a need for detailed study of the fauna of Western Ghats in Maharashtra. Information on ecology and systematics of land molluscs such as slugs and amphibian molluscs is grossly inadequate. Further, extensive surveys of this area will undoubtedly reveal the existence of many more species than what is known today.

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Table 1. Checklist of land and freshwater molluscs of Maharashtra

<b>Phylum: Mollusca</b>	<i>Lymnaea (Pseudosuccinea) acuminata</i> f. <i>rufescens</i> Gray	<i>Zootecus insularis</i> (Ehrenberg)
<b>Class: Gastropoda</b>	<i>Lymnaea (Pseudosuccinea) acuminata</i> ssp. <i>tonapii</i> Ray & Roy Choudhury	<b>Family: Ariophantidae</b>
<b>Order: Mesogastropoda</b>	<i>Lymnaea (Pseudosuccinea) acuminata</i> f. <i>typica</i> Lamarck	<b>Subfamily: Ariophantinae</b>
<b>Family: Cyclophoridae</b>	<i>Lymnaea (Radix) auricularia</i> (Linnaeus)	<i>Ariophanta bajadera</i> (Pfeiffer)
<i>Cyathopoma deccanense</i> Blanford	<i>Lymnaea (Pseudosuccinea) brevissima</i> (Annandale & Rao)	<i>Ariophanta laevipes</i> (Muller)
<i>Cyclophorus (Annularia) aurantiacus</i> (Schumacher)	<i>Lymnaea (Pseudosuccinea) luteola</i> (Lamarck)	<i>Cryptozona (Nilgiria) semirugata</i> (Beck)
<i>Cyclophorus (Glossostylus) indicus</i> (Deshayes)	<i>Lymnaea (Pseudosuccinea) luteola</i> f. <i>australis</i> Annandale & Rao	<i>Cryptozona (Xestina) belangeri</i> var. <i>bombayana</i> (Pfeiffer)
<i>Cyclophorus (Litostylus) involvulus</i> (Muller)	<i>Lymnaea (Pseudosuccinea) luteola</i> f. <i>impura</i> Troschel	<i>Cryptozona (Xestina) bistrialis</i> (Beck)
<i>Cyclophorus (Glossostylus) stenomphalus</i> Pfeiffer	<i>Lymnaea (Pseudosuccinea) luteola</i> f. <i>succinea</i> Deshayes	<i>Euplecta subdecussata</i> Pfeiffer
<b>Family: Diplommatinidae</b>	<i>Lymnaea (Pseudosuccinea) luteola</i> f. <i>typica</i> Lamarck	<b>Subfamily: Kaliellinae</b>
<i>Nicida liricineta</i> Blanford	<i>Lymnaea pinguis</i> Dohrn	<i>Kaliella barrackporensis</i> Pfeiffer
<i>Opisthostoma fairbanki</i> Blanford	<b>Family: Planorbidae</b>	<i>Kaliella bullula</i> (Hutton)
<b>Family: Pomatiasidae</b>	<b>Subfamily: Buliniinae</b>	<b>Subfamily: Macrochlamydiinae</b>
<i>Cycloptopsis semistriata</i> (Sowerby)	<i>Indoplanorbis exustus</i> (Deshayes)	<i>Macrochlamys indica</i> (Godwin & Austen)
<b>Family: Viviparidae</b>	<b>Subfamily: Planorbinae</b>	<i>Macrochlamys infausta</i> Blanford
<b>Subfamily: Bellamyinae</b>	<i>Gyraulus convexiusculus</i> (Hutton)	<i>Macrochlamys pedina</i> (Benson)
<i>Bellamya bengalensis</i> form <i>annandalai</i> (Kobelt)	<i>Gyraulus labiatus</i> (Benson)	<i>Macrochlamys petasus</i> (Benson)
<i>Bellamya bengalensis</i> form <i>bengalensis</i> (Lamarck)	<i>Gyraulus rotula</i> (Benson)	<i>Macrochlamys petrosa</i> (Hutton)
<i>Bellamya bengalensis</i> form <i>doliaris</i> (Gould)	<b>Order: Systellommatophora</b>	<i>Macrochlamys tenuicula</i> (H. Adams)
<i>Bellamya bengalensis</i> form <i>eburnea</i> (Annandale)	<b>Family: Veronicellidae</b>	<b>Subfamily: Girasiinae</b>
<i>Bellamya bengalensis</i> form <i>incrassatus</i> Annandale	<i>Laevicaulis alte</i> (Ferussac)	<i>Mariaella dussumieri</i> Gray
<i>Bellamya bengalensis</i> form <i>mandiensis</i> Kobelt	<i>Sarasinula plebeja</i> (Fischer)	<b>Subfamily: Durgellinae</b>
<i>Bellamya dissimilis</i> (Muller)	<i>Semperula birmanica</i> (Theobald)	<i>Sitala denselirata</i> Preston
<b>Family: Pilidae</b>	<i>Semperula maculata</i> (Templeton)	<b>Subfamily: Helicarioninae</b>
<i>Pila globosa</i> (Swainson)	<b>Order: Stylommatophora</b>	<i>Eryrchlamys platychamys</i> Blanford
<i>Pila virens</i> (Lamarck)	<b>Family: Succineidae</b>	<i>Pseudostenia atra</i> Godwin-Austen
<i>Turbinicola saxea</i> (Reeve)	<i>Indosuccinea khandalla</i> Rao	<b>Family: Trochomorphidae</b>
<b>Family: Hydrobiidae</b>	<i>Lithotis rupicola</i> Blanford	<i>Trochomorpha (Sivela) billiana</i> (Morch)
<b>Subfamily: Bithyniinae</b>	<i>Lithotis tumida</i> Blanford	<b>Family: Pleurodontidae</b>
<i>Digoniostoma cerameopoma</i> (Benson)	<i>Succinea bensoni</i> Pfeiffer	<i>Chloritis leithi</i> Gude
<i>Digoniostoma pulchella</i> (Benson)	<i>Succinea collina</i> Hanley & Theobald	<i>Chloritis propinqua</i> (Pfeiffer)
<i>Gabbia orcula</i> Frauenfeld	<i>Succinea raoi</i> Subba Rao and Mitra	<i>Planispira (Trachia) crassicosata</i> (Benson)
<i>Gabbia orcula</i> var. <i>producta</i> (Nevill)	<i>Succinea tornadri</i> Rao	<i>Planispira footei</i> Stoliczka
<i>Gabbia stenothyroides</i> (Dohrn)	<b>Family: Cerastuidae</b>	<i>Planispira proxima</i> (Ferussac)
<i>Sataria evezardi</i> (Blanford)	<b>Subfamily: Napaeinae</b>	<b>Family: Fruticicoloidae</b>
<b>Family: Thiaridae</b>	<i>Cerastus abyssinicus</i> (Pfeiffer)	<i>Eulota scalpturita</i> (Benson)
<b>Subfamily: Thiarinae</b>	<i>Cerastus densus</i> (Pfeiffer)	<b>Family: Vallonidae</b>
<i>Thiara (Tarebia) lineata</i> (Gray)	<i>Cerastus distans</i> (Pfeiffer)	<i>Pupisoma evezardi</i> (Blanford)
<i>Thiara (Melanoides) pyramis</i> (Hutton)	<i>Cerastus jerdoni</i> (Reeve)	<b>Family: Streptaxidae</b>
<i>Thiara (Melanoides) pyramis</i> var. <i>leopardina</i> Annandale & Prasad	<i>Cerastus jerdoni</i> var. <i>redfieldi</i> (Pfeiffer)	<i>Streptaxis scalptus</i> Blanford
<i>Thiara (Melanoides) pyramis</i> var. <i>puteicola</i> Annandale & Prasad	<i>Cerastus moussonianus</i> (Petit)	<b>Class: Bivalvia</b>
<i>Thiara (Melanoides) riqueti</i> (Grateloup)	<i>Rachis bengalensis</i> Lamarck	<b>Order: Eulamellibranchiata</b>
<i>Thiara (Thiara) scabra</i> (Muller)	<i>Rachis praetermissus</i> Blanford	<b>Family: Unioniidae</b>
<i>Thiara (Thiara) scabra</i> var. <i>elegans</i> (Benson)	<i>Rachis punctatus</i> (Anton)	<b>Subfamily: Unioniinae</b>
<i>Thiara (Melanoides) tuberculatus</i> (Muller)	<b>Family: Subulinidae</b>	<i>Lamellidens consobrinus</i> (Lea)
<b>Subfamily: Melanatrinae</b>	<b>Subfamily: Subulininae</b>	<i>Lamellidens corrianus</i> (Lea)
<i>Sulcospira (Sulcospira) hugely</i> var. <i>compacta</i> Nevill	<i>Glessula arthuri</i> (Benson)	<i>Lamellidens lamellatus</i> (Lea)
<b>Subfamily: Paludominae</b>	<i>Glessula brevis</i> (Pfeiffer)	<i>Lamellidens marginalis</i> (Lamarck)
<i>Paludomus (Paludomus) obesus</i> (Philippi)	<i>Glessula ceylanica</i> (Pfeiffer)	<i>Lamellidens marginalis</i> var. <i>cylindrica</i> (Hanley & Theobald)
<i>Paludomus (Stomatodon) stomatodon</i> Benson	<i>Glessula chessoni</i> (Benson)	<b>Subfamily: Parreysiinae</b>
<i>Paludomus tanschaurica</i> var. <i>malabarica</i> Nevill	<i>Glessula dikrangense</i> Godwin-Austen	<i>Parreysia (Radiatula) caerulea</i> Lea
<b>Subfamily: Melanopsinae</b>	<i>Glessula gemma</i> (Reeve)	<i>Parreysia (Parreysia) corrugata</i> Muller
<i>Faunus ater</i> (Linnaeus)	<i>Glessula hebes</i> (Blanford)	<i>Parreysia (Parreysia) corrugata</i> (Muller) sub sp. <i>laevirostris</i> (Benson)
<b>Family: Littorinidae</b>	<i>Glessula illustris</i> var. <i>tumida</i> Godwin-Austen	<i>Parreysia corrugata</i> var. <i>nagpoorensis</i> (Lea)
<i>Cremnoconchus (Cremnoconchus) syhadrensis</i> (Blanford)	<i>Glessula lyrata</i> Blanford	<i>Parreysia (Parreysia) cylindrica</i> Annandale & Prasad
<i>Cremnoconchus (Lissoconchus) conicus</i> (Blanford)	<i>Glessula notigena</i> (Benson)	<i>Parreysia favidens</i> (Benson)
<i>Cremnoconchus conicus</i> var. <i>edecollata</i> Nevill	<i>Glessula pulla</i> Blanford	<i>Parreysia favidens</i> var. <i>marckens</i> (Benson)
<i>Cremnoconchus (Lissoconchus) carinatus</i> (Layard)	<i>Glessula rugata</i> Blanford	<i>Parreysia (Radiatula) khadakvaslaensis</i> (Ray)
<b>Order: Basommatophora</b>	<i>Glessula singhurensis</i> Blanford	<i>Parreysia rajahensis</i> (Lea)
<b>Family: Lymnaeidae</b>	<i>Glessula tornensis</i> Blanford	<b>Family: Corbiculidae</b>
<i>Lymnaea (Pseudosuccinea) acuminata</i> (Lamarck)	<b>Family: Opeatinae</b>	<i>Corbicula krishnaea</i> Ray
<i>Lymnaea (Pseudosuccinea) acuminata</i> f. <i>gracilior</i> Martens	<i>Opeas gracile</i> (Hutton)	<i>Corbicula peninsularis</i> Prasad
<i>Lymnaea (Pseudosuccinea) acuminata</i> var. <i>nana</i> Annandale	<b>Subfamily: Rumininae</b>	<i>Corbicula regularis</i> Prime
<i>Lymnaea (Pseudosuccinea) acuminata</i> f. <i>patula</i> Troschel	<i>Zootecus chion</i> (Pfeiffer)	<i>Corbicula striatella</i> Deshayes

