Viviparus bengalensis

*V. bengalensis* is a widely distributed fresh water dextral prosobranch, found in large number throughout the year in the ponds, ditches, canals, streams etc. of India, particularly in West Bengal. In the rainy season, they radiate from their habitat - perennial water, in all possible directions and are found in considerable number in paddy fields, drainage canals and temporary water reservoirs etc.

In stagnant pools, *Viviparus* prefers shallow water near the bank though collection from 6 to 7 ft. deep is not rare. In moving masses of water their preference is always for slow moving ones, keeping themselves mostly restricted to very near the banks. They inhabit brackish water also.

Ordinarily they move on soft muddy bottom or hard submerged support and remain busy in collecting food. They rest with the apical half of the shell buried in mud.

*Viviparus* like other prosobranchs draws in food with the respiratory current which also flushes the mantle cavity. The water is ejected out through the siphon formed temporarily...
by rolling of the right pseudipodium. In foul water, *V. bengalensis* crowd near the edge of the water keeping the anterior border of the mantle cavity above water level.

**Acrostoma variabile**

*A. variabile* is a large dextral prosobranch. The largest snail collected from 7 ft. deep water in West Bengal, measured 100 x 35 mm.

In the first few weeks of the rainy season, rain water washes down organic matter accumulated on the banks for several months, to the water of ponds and pools, and this attracts large number of snails to the edge of the water, and they actively crawl on the muddy bottom presumably in search of food. Radiation in different directions in rainy season is, however, absent in *A. variabile* in West Bengal.

**Telescopium telescopium**

*Telescopium telescopium* is a dextral prosobranch, exceedingly shy and quite large in size. Collection is made from the muddy banks of the Matla river and adjoining brackish water pools at Port Canning. Possibly it is the largest prosobranch in this locality and found on tidal mud flats in estuaries of lower West Bengal.

It can withstand desiccation for a considerable period of time and snails were alive for more than 6 months out of water.

*Telescopium* harbours many *Balanus* on its shell. Sometimes a major portion of the shell is covered by *Balanus* population.
**Indoplanorbis exustus**

The sinistral basommatophore *Indoplanorbis exustus* is the largest fresh water planorbid in the Indian sub-continent. It has a wide distribution and is found in large number throughout the year in ponds, ditches and slow moving streams of the moderate temperature region.

*Indoplanorbis* are almost always found crawling or at rest on some submerged support or floating matters. They are rarely seen crawling or resting on the bottom of the ponds. They are often found to float upside down on water.

The snails prefer to live in shallow water. They often leave water and stay on the wet bank of the pool in close association with algae and other aquatic vegetation and debris.

**Macrochlamys indica**

*Macrochlamys indica* is a stylommatophore found in considerable number in India, particularly in lower West Bengal.

It is a dextral land snail with a thin, horny shell. It is mainly a scavenger and found in damp and shady places, in and around villages, especially where house refuse is thrown, and it always avoids direct sun rays. It is found in gardens, crevices under shade, holes in trees, under bark, debris, decaying leaves and stones, and occurs in large number in old and abandoned dilapidated buildings which in addition to furnishing shade and dampness, supply lime, one of the essential requirements of shelled animals.
Macrochlamys is most active during the monsoon and for a short post monsoon period, viz. July to October. In day time they rest in shady places under cover. Usually they become active at dusk and this continues for the whole of the night.

In and around Calcutta and in lower West Bengal, M. indica undergoes aestivation with the advent of the cold and dry wind from the month of November onwards. During aestivation, the body is withdrawn into the shell. A viscous substance secreted by the foot and the mantle collar being dried, forms a white, porous, thin, brittle, false operculum or epiphragm, perfectly fitting the aperture of the shell. On removal of the epiphragm, a live specimen is seen within the shell in a very much contracted state and in comatose condition. The epiphragm, being impervious to water, stops the danger of the snail being dehydrated. However, a systematic search for M. indica in different layers of accumulated heaps of house refuse or piled up decomposing organic materials, e.g. preparation of leaf manure in pits in summer, revealed that snails in the upper layers did not survive while in the deeper layers they were in a state of aestivation.

When the snails again become active, they may throw off the epiphragm intact or break it into pieces by the pressure of the foot. Removal of the epiphragm in an aestivating snail causes the secretion of a thick yellow mucus probably rich in excretory substances.

The period of aestivation is extremely variable and dependent on climate. In Calcutta and lower West Bengal, aestivation
starts from late November and continues till May–June. One or two heavy showers in this period may activate the snails temporarily.

In the rainy season heavy showers occasionally flood the natural habitat and the snails climb on trees upto 5 to 6 ft. in large numbers and rest there protecting themselves from the rains.

**Macrochlamys** is found in abundance in lower West Bengal but the number has not yet reached the level to be considered as a major crop pest.