THE FIRST LIST OF FRESHWATER MOLLUSCS IN THE "PEDRA BRANCA STATE PARK", RIO DE JANEIRO, BRAZIL

There are few publications on the diversity of freshwater snails in protected areas in the state of Rio de Janeiro. The first reference was provided by Hass (1953) that included *Burnupia* (*Anisancylus*) *obliquus* (Broderip and Sowerby, 1832) and *Pisidium globulus* Clessin, 1822 in a species list of an area now included in the Ilha Grande State Park; Santos et al. (1999) cited *Antillorbis nordestensis* (Lucena, 1954) to the same area; Andreata and Marca (1993) cited *Pomacea* sp. and *Melanoides tuberculatus* (Müller, 1774) in the Tijuca National Park.

This paper report here on freshwater snails that were collected at three streams (Rio Engenho Novo, Rio Grande and Rio Pequeno) at the Pedra Branca State Park (PBSP), within the city of Rio de Janeiro, in conjunction with an investigation of leaf-litter decomposition that intend to understand the role of different components of the fauna and the effect of sewerage pollution by means of exclusion experiments (MAGALHÃES-FRAGA, 2002). These experiments were made using 648 bags with 5 g packs of leaves of *Myrcia rostrata* De Candolle that were sewn together in 0.2 mm mesh nylon bags with different sized meshes (0.2, 2 an 10 mm) at their posterior end for the exclusion of different sized fauna. The exclusion bags were placed in three sites above and three below the first domestic sewerage pollution source in each river, in October-November 1999 and March-May 2000. All three studied streams arise in well-protected forest, but suffer pollution by domestic sewerage as they leave the state park.

Environmental parameters such as Nitrogen, Phosphorus, chlorophyll and faecal coliforms were utilized for considering the sites polluted or unpolluted (MAGALHÃES-FRAGA, 2002). The snail specimens were derived from the exclusion bags, where they colonized the leaves and are housed at the Malacological Collection of the University of the State of Rio de Janeiro (Col. Mol. UERJ).

Eight species of freshwater gastropods and one of bivalves were found in the studied streams: *Heleobia* sp. (Hydrobiidae), *Melanoides tuberculatus* (Müller, 1774) (Thiaridae); *Pomacea sordida* (Swainson, 1823) (Ampullariidae), *Physa cubensis* Pfeiffer, 1839 (Physidae); *Antillorbis nordestensis* (Lucena, 1954) (Planorbidae), *Biomphalaria tenagophila* (d'Orbigny, 1835) (Planorbidae), *Gundlachia ticaga* (Marcus and Marcus, 1962) (Ancylidae), *Ferrissia* sp. (Ancylidae) and *Pisidium* sp. (Sphaeriidae).

All the listed species, except *Heleobia* sp., are present in the Metropolitan Region and/or in the Serrana Microregion of the state of Rio de Janeiro according to recent surveys (THIENGO et al. 2001). In the studied streams *Heleobia* sp. was present only upstream, at unpolluted areas (MAGALHÃES-FRAGA, 2002).

Biomphalaria tenagophila, one of the intermediate hosts of *Schistossoma mansoni*, was cited to the locality of Vargem Grande, in the neighborhood of the PBSP, where it was the only species of *Biomphalaria* collected (THIENGO et al. 2001).

The invasive prosobranch *Melanoides tuberculatus* was found in dense aggregates in polluted areas of the streams, but it seems to be migrating upstream to the unpolluted areas. It was introduced in Brazil in about the sixties (VAZ et al. 1986) and nowadays is widespread in the national territory (MARCO J. 1999; PEREIRA 2000). Many studies conducted by Pointier (1999) have shown that its introduction negatively affects native snails causing their reduction or even disappearance.

Pomacea sordida was found only in Rio Engenho Novo, at polluted areas. *Pisidium* sp. was found in all streams only at polluted areas (MAGALHÃES-FRAGA, 2002).

Ferrissia sp. is similar to the species cited by Thiengo et al (2001) to Rio de Janeiro. It differs from *F. gentilis* Lanzer, 1991, described to South Brazil, by shell, apical microsculpture and muscle scars. Together with *G. ticaga* it was collected in all studied locations of the three streams. These species support well organic pollution as well as *Physa cubensis*.

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Recebido em: 13.03.03. Aceito em: 09.12.03.

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