

Nine new records to inventory of continental mollusc species from Santa Catarina State, Central Southern Brazil

A. Ignacio Agudo-Padrón^{1,*}, Jefferson Souza da Luz¹, Luís Adriano Funez² and Ana Elisa Zermiani²

¹Project “Avulsos Malacológicos - AM”, Caixa Postal 010, CEP 88010-970, Florianópolis, Santa Catarina - SC, Brazil. *ignacioagudo@gmail.com, <http://noticias-malacologicas-am.webnode.pt>

²Fundação Universidade Regional de Blumenau - FURB, Rua Antônio da Veiga, 140, Victor Konder, CEP 89012-900, Blumenau - SC, Brazil.

Abstract. A new total of nine continental gastropod forms are incorporated to the previous systematic malacological inventory of Santa Catarina's State/SC, central southern Brazil region, the species *Helicina schererri* Baker, 1913, *Assiminea* sp, *Lamellaxis clavulinus* (Potiez & Michaud, 1838), *Lamellaxis (Leptopeas)* cf. *mizius* Marcus & Marcus, 1968, *Plekocheilus (Eurytus)* sp, *Rhinus* cf. *longisetus* (Moricand, 1846), *Simpulopsis* cf. *ovata* Sowerby, 1822, *Megalobulimus klappenbachi* Leme, 1964, and *Zilchogyra cleliae* Weyrauch, 1965. Included in eight genera and seven families, raise the state record for 220 species and subspecies regionally known (190 gastropods – 148 terrestrial, 2 amphibian and 40 limnic/freshwater –, and 30 freshwater bivalves).

Keywords: Continental molluscs, Santa Catarina State, Species inventory.

Continuing the work of regional survey, again based on extensive literature review and the examination of samples obtained in the course of works done in the field, the present contribution incorporates the record of further nine forms to previous systematic inventories of known continental molluscs of the Santa Catarina's State/SC, geographical central portion of southern Brazil region (Agudo-Padrón, 2008, 2012; Agudo-Padrón et al., 2013a,b, 2014), including gastropod forms distributed in eight genera and seven families, to a new record of 220 species and subspecies known regionally (190 gastropods –148 terrestrial, 2 amphibian and 40 limnic/freshwater –, and 30 freshwater bivalves).

In the course of this study some “cryptic regional works” of academic nature were also rescued (Corrêa, 2010; Rosso and Darolt, 2011), as important sources for future reference of new species

Received
April 22, 2014

Accepted
May 12, 2014

Released
June 30, 2014

Open Access
Full Text Article



records, the giant native forest snail *Megalobulimus sanctipauli* (Ihering & Pilsbry, 1900), by example (Gregoric et al., 2013: p.1764 - Cuadro/ Table 1). The actual full list of species so far registered in the State can be viewed at the following link <http://noticias-malacologicas-am.webnode.pt/news/estado-da-arte-ordenamento-da-malacofauna-continental-de-santa-catarina-sc-/>.

The taxonomic arrangement basically continues accompanying the original proposal of Agudo-Padrón (2008, 2012) and Agudo-Padrón et al. (2013a, 2014), based on the monographic contributions of Simone (2006) and Thomé et al. (2006). Additional information about the type material deposited in museums, known geographic distribution, corresponding synonyms and other aspects relative to the related species, can be obtained through the works of Simone

(2006), Thomé et al. (2006), and Agudo-Padrón et al. (2013b).

CLASS GASTROPODA Cuvier, 1787
 SUBCLASS PROSOBRANCHIA Milne Edwards, 1848
 ORDER MESOGASTROPODA Thiele, 1927
 Family Helicinidae Féussac, 1822
Helicina schereri Baker, 1913 (Figure 1)
 Blumenau Municipal District, SC, ??/2013 (FURB MO?); Rodeio Municipal District, SC, 17/08/2013 (FURB MO?).



Figure 1. *Helicina schereri* Baker, 1913 specimen and its known distribution (Maps, red color) in Santa Catarina State/SC. Photo: Ana Elisa Zermiani.

Family Assimineidae H. Adams & A. Adams, 1856

Assiminea sp - in determination process (Figure 2)
 Rodeio Municipal District (FURB MO236, MZSP 114504); Blumenau Municipal District (FURB MO237); Gaspar Municipal District (FURB MO234); Indaiá Municipal District (FURB MO190, FURB MO210). For complete report/full regional informations see Agudo et al. (2013b).

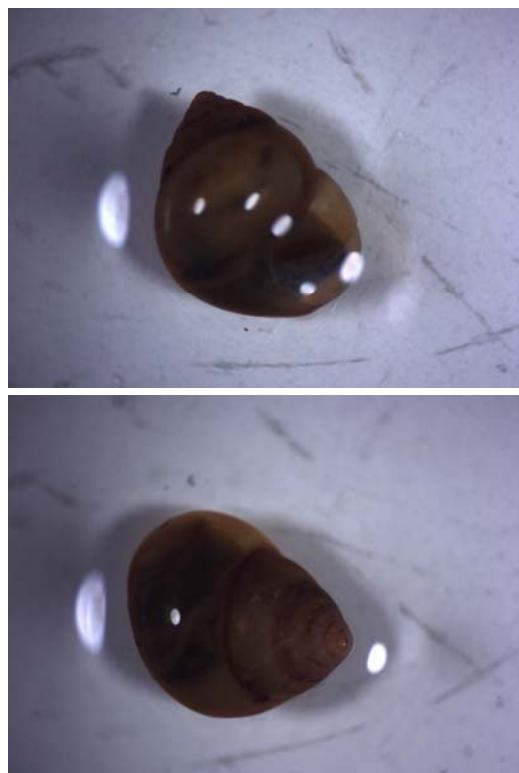


Figure 2. *Assiminea* sp specimen of Santa Catarina State/SC (FURB MO190). Photos: Luís Adriano Funez and Ana Elisa Zermiani.

Family Subulinidae Fischer & Crosse, 1877

Lamellaxis clavulinus (Potiez & Michaud, 1838) (Figure 3)
 Blumenau Municipal District, ??/08/2013, 1 specimen (FURB MO273).



Figure 3. *Lamellaxis clavulinus* (Potiez & Michaud, 1838) specimen and its known distribution (Map, red color) in Santa Catarina State/SC. Photo: Luís Adriano Funez.

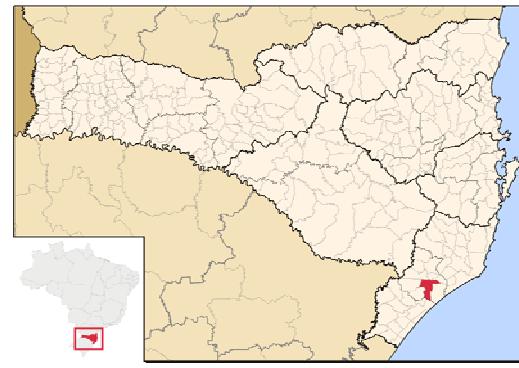


Figure 4. *Lamellaxis (Leptopeas) cf. mizius* Marcus & Marcus, 1968 specimen and its known distribution (Maps, red color) in Santa Catarina State/SC. Photo: Ana Elisa Zermiani.

Lamellaxis (Leptopeas) cf. mizius Marcus & Marcus, 1968 (Figure 4)

José Milanese Municipal Ecological Park, Criciúma Municipal District, ??/2010 – see Corrêa (2010: 24-Tabela 1 & follows); Rodeio Municipal District, 17/08/2013, 1 specimen (FURB MO?).

Family Bulimulidae Tryon, 1896
Plekocheilus (Eurytus) sp - in determination process (Figure 5)

Itaiópolis Municipal District (High Valley of Itajaí River), 18/11/2013, 1 specimen. For a complete field information and discussion see: http://www.rabugio.org.br/ver_especie.php?id=1767; <http://breure.wordpress.com/2013/12/02/>

Rhinus cf. *longisetus* (Moricand, 1846) (Figure 6)
Rodeio Municipal District, 17/08/2013, 1 specimen (FURB MO?).

Family Amphibulimidae Crosse & Fischer, 1873
Simpulopsis cf. *ovata* Sowerby, 1822 (Fig. 7)
Rodeio Municipal District, 17/08/2013, 1 specimen (FURB MO?).



Figure 5. *Plekocheilus (Eurytus)* sp specimen and its known distribution (Map, red color) in Santa Catarina State/SC. Photos: Germano Woehl Jr, Instituto Rã-Bugio, SC.



Figure 6. *Rhinus cf. longisetus* (Moricand, 1846) specimen and its known distribution (Map, red color) in Santa Catarina State/SC. Photos: Ana Elisa Zermiani.

Family Megalobulimidae Leme, 1973

Megalobulimus klappenbachii Leme, 1964 (Figure 8)

Garuva Municipal District - see Colley (2013: p. 72). For a recognition of the species see Simone (2006, p. 212).



Figure 7. *Simpulopsis* cf. *ovata* Sowerby, 1822 specimen and its known distribution (Map, red color) in Santa Catarina State/SC. Photo: Ana Elisa Zermiani.



Figure 8. Known distribution (red color) in Santa Catarina State/SC of the forest snail *Megalobulimus klappenbachi* Leme, 1964.

Family Charopidae Hutton, 1884
Zilchogyra cleliae Weyrauch, 1965 (Figure 9)
 Blumenau Municipal District, ??/08/2013, 4 specimens (FURB MO146); “Estreito” Quarter, near to “Pedro Medeiros Forest City Park”, Continental Florianópolis Municipal District - see Agudo-Padrón and Luz (2014,

p. 17); Joinville Municipal District (J. S. Luz et al.). For other informations, see Agudo-Padrón (2008, p. 171) = *Paralaoma servilis* (Shuttleworth, 1852).

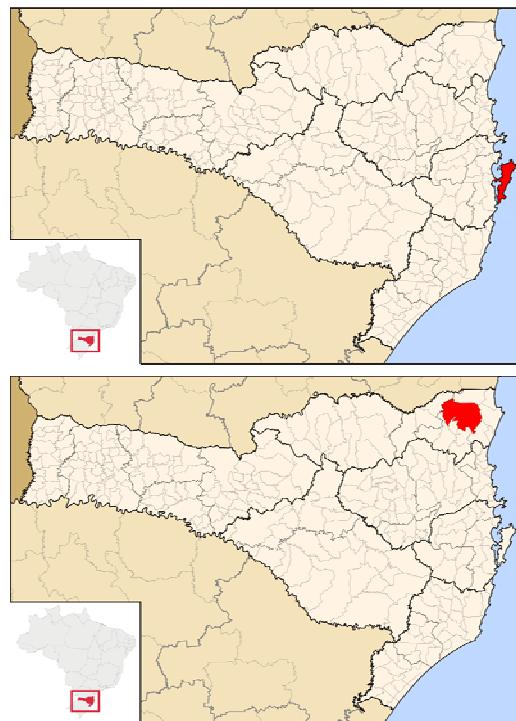


Figure 9. Known distribution (red color) in Santa Catarina State/SC of the micro-snail *Zilchogyra cleliae* Weyrauch, 1965.

Abbreviations: FURB - Malacological Collection of Fundação Universidade Regional de Blumenau - FURB, Blumenau/SC, Brazil. MZSP - Malacological Collection of Museu de Zoologia da Universidade de São Paulo, São Paulo/SP, Brazil.

References

- Agudo-Padrón, A. I. Listagem sistemática dos moluscos continentais ocorrentes no Estado de Santa Catarina, Brasil. **Comunicaciones de la Sociedad Malacológica del Uruguay**, v. 9, p. 147-179, 2008.
 Agudo-Padrón, A. I. Nuevos aportes a la lista sistemática de moluscos continentales ocurrentes en el Estado de Santa Catarina, Brasil. **Amici Molluscarum**, v. 20, p. 35-42, 2012.
 Agudo-Padrón, A. I.; Luz, J. S. Importance of preserving forest remnants in urban areas for the

conservation of native molluscs: a study in southern Brasil. **IUCN/SSC Newsletter Tentacle**, n. 22, p. 16-17, 2014.

Agudo-Padrón, A. I.; Luz, J. S.; Lisboa, L. K. About four new records of continental molluscs (Gastropoda: Veronicellidae, Megalobulimidae, Vertiginidae & Bivalvia: Hyriidae) from Santa Catarina State/SC, Central Southern Brazil. **Boletín de la Asociación Argentina de Malacología**, v. 3, p. 14-19, 2013a.

Agudo-Padrón, A. I.; Funez, L. A.; Zermiani, A. E. First Record of operculated amphibian snails “Assimineidae” in Santa Catarina State/SC, Central Southern Brazil region. **FMCS Newsletter Ellipsaria**, v. 15, p. 34-37, 2013b.

Agudo-Padrón, A. I.; Luz, J. S.; Lisboa, L. K.; Zermiani, A. E. Additional twelve new records to inventory of continental mollusc species from Santa Catarina/SC, Central Southern Brazil. **Boletín de la Asociación Argentina de Malacología**, v. 3, p. 11-20, 2014.

Colley, E. **Taxonomia, Macroecologia e Ecologia de Gastropoda terrestre (Mollusca, Orthogastropoda) do Estado do Paraná, Brasil**. Curitiba: Universidade Federal do Paraná, 2013. (Doctoral Thesis Zoology).

Corrêa, N. X. **Comunidade de gastrópodes em áreas verdes urbanas no Município de Criciúma, SC**. Criciúma: Universidade do Extremo Sul Catarinense, 2010. (TCC Bachelor Biological Sciences).

Gregoric, D. E. G.; Núñez, V.; Vogler, R. E.; Beltrmino, A. A.; Rumi, A. Gasterópodos terrestres de la provincia de Misiones, Argentina. **Revista de Biología Tropical**, v. 61, p. 1759-1768, 2013.

Rosso, P.; Darolt, S. M. Gastrópodes terrícolas na Estação Ecológica Costão da Serra, Siderópolis, Santa Catarina, Brasil. Criciúma: 1º Seminário de Pesquisa, Extensão e Inovação do Instituto Federal de Santa Catarina/IF-SC - 1º SEPEI, Campus Criciúma, November 16-18, 2011. p. 25-27.

Simone, L. R. L. **Land and freshwater molluscs of Brazil**. São Paulo: FAPESP, 2006.

Thomé, J. W.; Gomes, S. R.; Picanço, J. B. **Guia ilustrado: Os caracóis e as lesmas dos nossos bosques e jardins**. Pelotas: USEB, 2006.