

Brazilian, Uruguayan and Argentinian terrestrial gastropods in the collection of the Museum of New Zealand Te Papa Tongarewa

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ABSTRACT: The malacological collection of the Museum of New Zealand Te Papa Tongarewa (NMNZ), despite naturally focusing on New Zealand species, also includes a variety of specimens from South America. Examination of this material revealed new distributional data for several species. All Brazilian, Uruguayan and Argentinian terrestrial gastropods from the NMNZ collection were examined and reidentified (no material from Paraguay was found). The information gathered was compiled and is presented in this article, and may contain significant data for malacologists working with the region's fauna. In summary, 99 species are reported, 13 of which represent new records and meaningful increments in geographical distribution, either extending their known range or filling distributional gaps. Moreover, the NMNZ collection houses the type material of six species from Brazil and Argentina described by the New Zealand malacologist Henry Suter (1841–1918) in 1900.

KEYWORDS: Gastropoda, Neritimorpha, 'Pulmonata', range extension, snails, type specimens.

Introduction

The malacological collection of the Museum of New Zealand Te Papa Tongarewa (NMNZ; Wellington, New Zealand) naturally focuses on species from that country, but also includes items from other regions of the world, such as the Pacific, Antarctica and South America. The NMNZ collection comprises more than 320,000 registered lots, of which roughly one-quarter are estimated to be of terrestrial gastropods, largely from New Zealand taxa (B. Marshall, pers. comm., 2018). Nevertheless, the collection is surprisingly rich in material from South America, especially from Brazil and Argentina (including type material; Marshall 1996) and in particular the 'pulmonate' superfamily Orthalicoidea. These specimens mostly stem from private collections of malacologists and shell collectors. They are often very

finely preserved and usually present reasonable geographic provenance data.

A cursory examination of the South American specimens led to the realisation that the lots of some species represented new records previously unknown in the literature. Since most South American land snail species are scarcely studied and their distribution and biology remain largely unknown (Simone 1999), the extra information contained in the NMNZ collection may be of significance to malacologists working with this region's fauna. Therefore, all the data on Brazilian, Uruguayan and Argentinian snails from the NMNZ collection has been compiled and is presented here. In summary, 99 species (mostly stylommatophorans) are reported, 13 of which represent new records and meaningful increments in geographical distribution, either extending the species' known range or filling distributional gaps.

Material and methods

All the terrestrial snails from Brazil, Uruguay and Argentina in the NMNZ collection were studied here (no material from Paraguay was found). The material consists largely of dry shells from early twentieth-century collections. All the lots were reidentified based on specialised literature: the original descriptions, revisionary works and the catalogue by Luiz Simone (2006), together with its complement by Carlos Birckolz *et al.* (2016). Furthermore, comparisons with specimens from other collections (including types) were conducted when necessary. All species that presented new records and range extensions are illustrated here, and their main diagnostic features are indicated in the entry for each species. Measurements were taken with a digital calliper.

Institutional acronyms: ANSP, Academy of Natural Sciences of Drexel University (Philadelphia, USA); MZSP, Museu de Zoologia da Universidade de São Paulo (São Paulo, Brazil); NHMUK, Natural History Museum (London, UK); NMNZ, Museum of New Zealand Te Papa Tongarewa (Wellington, New Zealand).

Abbreviations used in species entries and captions: col., collector; colln., collection; D, greatest shell width (perpendicular to H); H, shell length (parallel to columellar axis); sh, dry shell.

Systematics

Subclass NERITIMORPHA

Superfamily Helicinoidea

Family Helicinidae

Genus *Helicina* Lamarck, 1799

Helicina variabilis Wagner, 1827

MATERIAL: NMNZ M.205826 (6 sh, ex Suter colln. 1444; Brazil).

DISTRIBUTION: Brazil (Pará, Bahia, Minas Gerais, Espírito Santo and Rio de Janeiro states) (Birckolz *et al.* 2016).

Superorder EUPULMONATA

Order Stylommatophora

Superfamily Pupilloidea

Family Gastrocoptidae

Genus *Gastrocopta* Wollaston, 1878

Gastrocopta iheringi (Suter, 1900)

MATERIAL: NMNZ M.205848 (holotype, ex Suter colln. 2176; Brazil, Rio Grande do Sul state, Rio Grande municipality, Bolaxa), NMNZ M.262658 (1 sh, ex Suter colln. 2176; Brazil, Rio Grande do Sul state, Rio Grande municipality, Bolaxa).

DISTRIBUTION: Known only from type locality (Salvador 2019).

REMARKS: For a discussion on the type material, see Salvador (2019).

Superfamily Orthalicoidea

Family Bothriembryontidae

Genus *Discoleus* Breure, 1978

Discoleus ameghinoi (Ihering, 1908)

MATERIAL: NMNZ M.205594 (2 sh; W.S. Eyerdam col. 20/Dec/1938; Argentina, Río Negro province, Sierra Grande, mountains).

DISTRIBUTION: Argentina (Buenos Aires, Río Negro, Chubut and Santa Cruz provinces) (Cuezzo *et al.* 2013).

Family Bulimulidae

Genus *Anctus* Martens, 1860

Anctus laminiferus (Ancey, 1888)

MATERIAL: NMNZ M.348320 (1 sh, ex E.S. Gourlay colln.; Brazil, Bahia state).

DISTRIBUTION: Brazil: Bahia state (Simone 2006).

Genus *Auris* Spix, 1827

Auris bilabiata (Broderip & Sowerby, 1829)

MATERIAL: NMNZ M.308193 (1 sh, ex I.M. Worthy colln.; L. Toffalini col. Jul/1970; Brazil, Espírito Santo state, Guarapari municipality, Perocão cove).

DISTRIBUTION: Brazil (Sergipe, Bahia, Minas Gerais, Espírito Santo and Rio de Janeiro states) (Birckolz *et al.* 2016).

Auris chrysostoma (Moricand, 1836) (Fig. 1A–B)

MATERIAL: NMNZ M.255461 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Alagoas state, Maceió municipality).

DISTRIBUTION: Brazil (Bahia state) (Simone 2006).

REMARKS: This species can be identified by its tall spire, weak teleoconch sculpture, the strongly reflected peristome, the single basal tooth-like structure on the aperture, and the dark brown colour present only on the parietal region of the aperture. The present record extends the species' distribution to the north (Alagoas state).

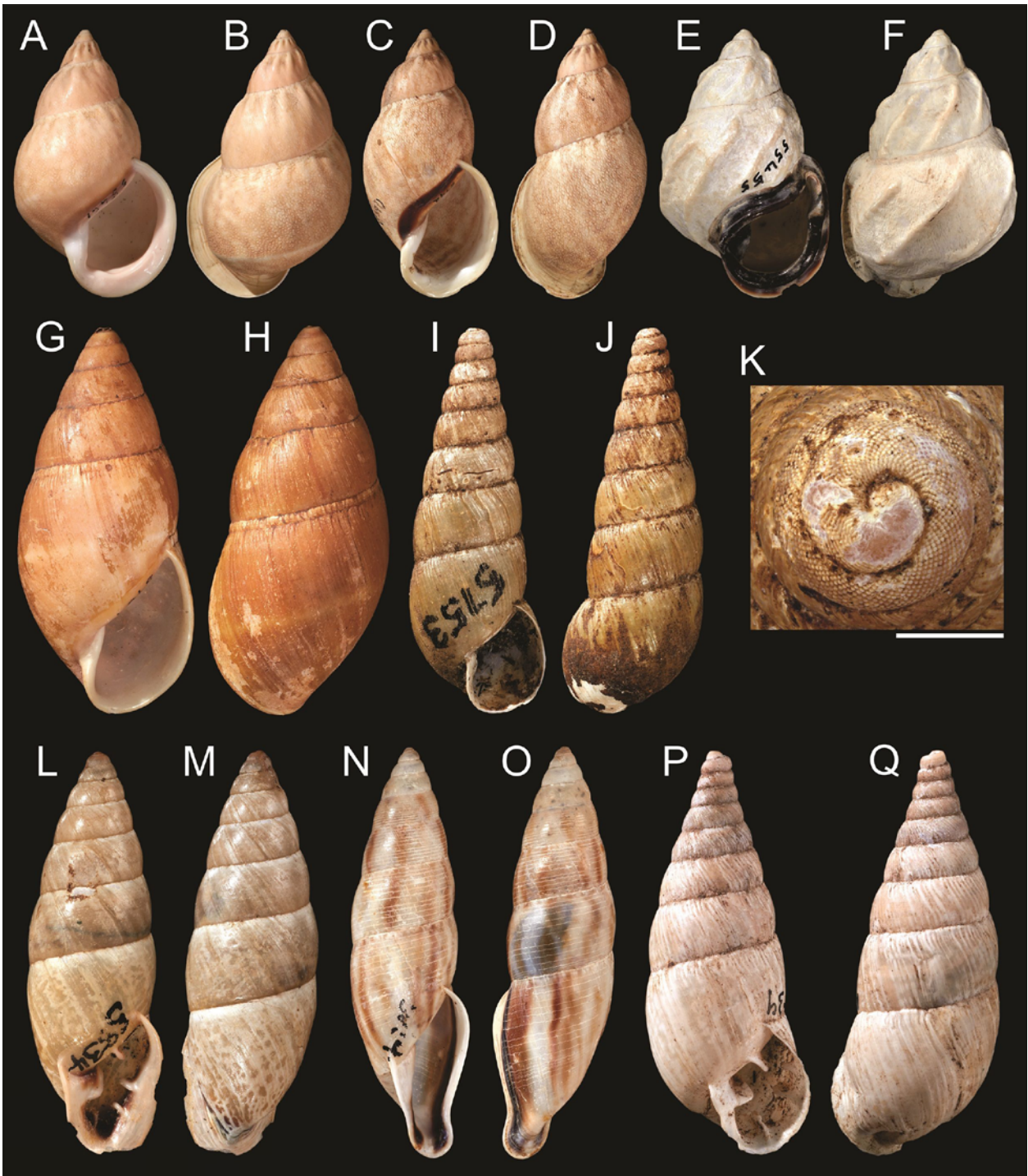


Fig. 1 A–B, *Auris chrysostoma* (Moricand, 1836), NMNZ M.255461 (H = 50.6 mm, D = 30.2 mm). C–D, *Auris illheocola* (Moricand, 1836), NMNZ M.205792 (H = 59.7 mm, D = 30.1 mm). E–F, *Auris melanostoma* (Moricand, 1836), NMNZ M.255455 (H = 41.5 mm, D = 26.0 mm). G–H, *Thaumastus nehringi* (Martens, 1889), NMNZ M.205769 (H = 48.3 mm, D = 21.3 mm). I–K, *Callionepion iheringi* Pilsbry & Vanatta, 1899, NMNZ M.325306 (H = 22.0 mm, D = 7.4 mm); K, close-up of the protoconch (scale bar = 1 mm). L–M, *Cyclodontina fusiformis* (Menke, 1828), NMNZ M.325307 (H = 27.9 mm, D = 8.9 mm). N–O, *Moricandia willi* (Dohrn, 1883), NMNZ M.205809 (H = 34.3 mm, D = 9.5 mm). P–Q, *Spixia martensii* (Doering, 1874 [1875]), NMNZ M.255415 (H = 19.5 mm, D = 7.7 mm).

Auris ilheocola (Moricand, 1836) (Fig. 1C–D)

MATERIAL: NMNZ M.205792 (1 sh, ex Suter colln. 1397; Brazil).

DISTRIBUTION: Brazil (Bahia state, Ilhéus municipality) (Simone 2006).

REMARKS: This species is known only from its type locality, but the data on the present material are too vague to constitute a meaningful second record.

Auris melanostoma (Moricand, 1836) (Fig. 1E–F)

MATERIAL: NMNZ M.255455 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Alagoas state, Barra de São Miguel municipality).

DISTRIBUTION: Brazil (Bahia state) (Simone 2006).

REMARKS: This species can be identified by its shorter spire and overall more globose shell profile, alongside its reflected and thickened peristome of a strong, dark brown colour. This record represents a range extension to Alagoas state to the north.

Genus *Bocourtia* Rochebrune, 1882***Bocourtia tupacii*** (d'Orbigny, 1835) comb. nov.

MATERIAL: NMNZ M.206322 (2 sh, Museo de Buenos Aires 9007; Argentina, Tucumán province, El Cadillal municipality), NMNZ M.255468 (4 sh, ex M. Holloway and A.G. Stevenson colln.; Argentina, Tucumán province).

DISTRIBUTION: Bolivia, Paraguay and Argentina (Jujuy, Salta, Formosa, Catamarca, Santiago del Estero, and Tucumán provinces) (Cuezzo *et al.* 2013).

REMARKS: This species has recently been transferred to the genus *Kuschelenia* Hylton Scott, 1951, by Breure & Ablett (2014). In turn, this genus has been considered a subgenus of *Bocourtia* by Bank (2017a); therefore, the species is presented here in this new combination.

Genus *Bostryx* Troschel, 1847***Bostryx stelzneri*** (Dohrn, 1875)

MATERIAL: NMNZ M.206258 (1 sh, ex Suter colln. 9696; Argentina, Córdoba province, Casa Grande municipality), NMNZ M.206325 (3 sh, Museo Buenos Aires no. 8838; Argentina, Jujuy province, Humahuaca municipality).

DISTRIBUTION: Peru (unconfirmed), Bolivia (Chuquisaca department) and Argentina (Jujuy, Salta, Tucumán, Catamarca, La Rioja, San Juan, Córdoba and San Luís provinces) (Cuezzo *et al.* 2013; Miranda & Cuezzo 2014).

Genus *Bulimulus* Leach, 1814***Bulimulus apodemetes*** (d'Orbigny, 1835)

MATERIAL: NMNZ M.206324 (3 sh, Museo Buenos Aires no. 9699; Argentina, Tucumán province).

DISTRIBUTION: Bolivia, Paraguay, Argentina (Jujuy, Salta, Formosa, Chaco, Santiago del Estero, Tucumán, Catamarca, La Rioja, Córdoba, Entre Ríos and San Luís provinces) and Uruguay (Cuezzo *et al.* 2013).

Bulimulus bonariensis (Rafinesque, 1833)

MATERIAL: NMNZ M.205824 (4 sh, ex Suter colln. 3548; Argentina, Entre Ríos province, Paraná municipality),

NMNZ M.255466 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Argentina, Entre Ríos province, Paraná municipality), NMNZ M.255467 (6 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Canelones [unclear if department or municipality]), NMNZ M.255482 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Montevideo department, Montevideo municipality), NMNZ M.317586 (2 sh, ex I.M. Worthy colln.; Argentina, Entre Ríos province, Paraná municipality).

DISTRIBUTION: Bolivia, Brazil (Mato Grosso and Rio Grande do Sul states), Paraguay, Argentina (Formosa, Chaco, Misiones, Córdoba, Tucumán, Corrientes, Santa Fé, Entre Ríos and Buenos Aires provinces) and Uruguay (Simone 2006; Cuezzo *et al.* 2013).

REMARKS: This species is often found in the literature as *Bulimulus sporadicus* (d'Orbigny, 1835), which is a junior synonym (Miquel 1991; Cuezzo *et al.* 2013).

Bulimulus rushii Pilsbry, 1897

MATERIAL: NMNZ M.232054 (2 sh, ex B.F. Hazelwood colln.; Dec/1965; Uruguay, Salto department, Salto municipality), NMNZ M.255463 (6 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Canelones [unclear if department or municipality]).

DISTRIBUTION: Argentina (Corrientes, Entre Ríos and Buenos Aires provinces) and Uruguay (Cuezzo *et al.* 2013).

Genus *Cochlorina* Jan, 1830***Cochlorina aurisleporis*** (Bruguière, 1792)

MATERIAL: NMNZ M.205806 (2 sh, ex Suter colln. 1385; Brazil).

DISTRIBUTION: Brazil (Bahia, Minas Gerais, Espírito Santo and Rio de Janeiro states) (Simone 2006).

Genus *Drymaeus* Albers, 1850***Drymaeus acervatus*** (Pfeiffer, 1857)

MATERIAL: NMNZ M.205807 (3 sh, ex Suter colln. 4790; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (São Paulo, Paraná, and Santa Catarina states) (Simone 2006).

Drymaeus flexilabris (Pfeiffer, 1853)

MATERIAL: NMNZ M.255416 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Alagoas state, Maceió municipality).

DISTRIBUTION: Brazil (Pernambuco and Alagoas states) (Salvador *et al.* 2018a).

Drymaeus germaini (Ancey, 1892)

MATERIAL: NMNZ M.205819 (4 sh, ex Suter colln. 5638; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (Mato Grosso and/or Mato Grosso do Sul, and São Paulo states) (Simone 2006).

Drymaeus interpunctus (Martens, 1887)

MATERIAL: NMNZ M.205820 (7 sh, ex Suter colln. 3563; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (São Paulo, Paraná, Santa Catarina and Rio Grande do Sul states), Paraguay, Argentina and Uruguay (Birckolz *et al.* 2016).

REMARKS: Possibly a synonym of *Drymaeus dutaillyi* (Pfeiffer, 1857).

Drymaeus oreades (d'Orbigny, 1835)

MATERIAL: NMNZ M.205811 (7 sh, ex Suter colln. 3549; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (São Paulo and Paraná states), Paraguay and Argentina (possibly Corrientes province) (Simone 2006; Cuezco *et al.* 2013).

Drymaeus papyraceus (Mawe, 1823)

MATERIAL: NMNZ M.205842 (3 sh, ex Suter colln. 4782; Brazil), NMNZ M.255441 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Colonia department, Carmelo municipality), NMNZ M.255470 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Cerro Largo department, Paso del Cerro).

DISTRIBUTION: Brazil, Paraguay, Argentina and Uruguay (Simone 2006).

Drymaeus poecilus (d'Orbigny, 1835)

MATERIAL: NMNZ M.255440 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Argentina, Tucumán province), NMNZ M.317547 (1 sh, ex I.M. Worthy colln.; Argentina, Tucumán province).

DISTRIBUTION: Bolivia, Brazil (Tocantins, Mato Grosso, Mato Grosso do Sul, Minas Gerais and São Paulo states), Paraguay and Argentina (Jujuy, Salta, Formosa, Catamarca, Santiago del Estero, Tucumán and San Juan provinces) (Cuezco *et al.* 2013; Birckolz *et al.* 2016).

Genus *Otostomus* Beck, 1837***Otostomus signatus*** (Spix, 1827)

MATERIAL: NMNZ M.205803 (2 sh, ex Suter colln. 1407; Brazil).

DISTRIBUTION: Brazil (Bahia and Espírito Santo states) (Simone 2006).

Genus *Oxychona* Mörch, 1852***Oxychona bifasciata*** (Burrow, 1815)

MATERIAL: NMNZ M.205829 (1 sh, ex Suter colln. 3672; Brazil).

DISTRIBUTION: Brazil (Pernambuco, Alagoas, Bahia and Minas Gerais states) (Salvador *et al.* 2018a).

Genus *Thaumastus* Martens, 1860***Thaumastus achilles*** (Pfeiffer, 1852)

MATERIAL: NMNZ M.248315 (1 sh, ex E.S. Gourlay colln.; Brazil, Espírito Santo state, Guarapari municipality), NMNZ M.248516 (1 sh, ex E.S. Gourlay colln.; Brazil, Espírito Santo state, Piúma municipality).

DISTRIBUTION: Brazil (Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo and Paraná states) (Simone 2006).

Thaumastus nehringi (Martens, 1889) (Fig. 1G–H)

MATERIAL: NMNZ M.205769 (2 sh, ex Suter colln. 4796; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (São Paulo state, Piracicaba municipality) (Simone 2006).

REMARKS: This species is known only from its type locality, but the data on the present material are too vague to constitute a meaningful second record.

Family Megaspiridae
Genus *Callionepion* Pilsbry &
Vanatta, 1899

Callionepion iheringi Pilsbry & Vanatta, 1899 (Fig. 11–K)

MATERIAL: NMNZ M.325306 (1 sh, ex Suter colln. 2986; Brazil, Espírito Santo state), NMNZ M.325381 (1 sh, ex Suter colln. 4797; Brazil, Bahia state), NMNZ M.325383 (1 sh, ex Suter colln. 3553; Brazil).

DISTRIBUTION: Brazil (São Paulo state, Piquete municipality) (Simone 2006).

REMARKS: This species is easily recognisable by its tall spire, peculiar protoconch sculpture (consisting of round nodules) and simple columellar lamella (Pilsbry & Vanatta 1899; lectotype ANSP 71258 and paralectotype ANSP 450611, designated by Baker 1963). *Callionepion iheringi* was known only from its type locality, Piquete; thus the present record from Espírito Santo state greatly expands its distribution. The specimen from Bahia is badly eroded and its identification remains tentative.

Genus *Megaspira* Lea, 1836

Megaspira elatior (Spix, 1827)

MATERIAL: NMNZ M.205810 (1 sh, ex Suter colln. 3663; Brazil).

DISTRIBUTION: Brazil (Rio de Janeiro state) (Simone 2006).

Family Odontostomidae
Genus *Bahiensis* Jousseau, 1877

Bahiensis bahiensis (Moricand, 1833)

MATERIAL: NMNZ M.205836 (3 sh, ex Suter colln. 1439; Brazil, Bahia state).

DISTRIBUTION: Brazil (Bahia and Rio de Janeiro states, and possibly Minas Gerais state) (Birckolz *et al.* 2016).

Bahiensis punctatissimus (Lesson, 1830)

MATERIAL: NMNZ M.205815 (1 sh, ex Suter colln. 4793; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (São Paulo, Paraná and Santa Catarina states) (Simone 2006).

Genus *Burringtonia* Parodiz, 1944

Burringtonia exesa (Spix, 1827)

MATERIAL: NMNZ M.205729 (1 sh, ex Suter colln. 156; Brazil).

DISTRIBUTION: Brazil (Bahia and Rio de Janeiro states) (Simone 2006).

Genus *Cyclodontina* Beck, 1837

Cyclodontina fusiformis (Menke, 1828) (Fig. 1L–M)

MATERIAL: NMNZ M.205816 (4 sh, ex Suter colln. 4776; Brazil, São Paulo [unclear if state or municipality]), NMNZ M.255498 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Minas Gerais state, Leopoldina municipality), NMNZ M.325307 (1 sh, ex Suter colln. 5641; Brazil, Espírito Santo state), NMNZ M.325384 (1 sh, ex Suter colln. 5632; Brazil, Bahia state).

DISTRIBUTION: Brazil (Mato Grosso, Rio de Janeiro, São Paulo, Paraná and Santa Catarina states) (Simone 2006).

REMARKS: The present records from Espírito Santo and Minas Gerais states fill a gap in the species' known distribution.

Cyclodontina inflata (Wagner, 1827)

MATERIAL: NMNZ M.205817 (3 sh, ex Suter colln. 4797; Brazil, Bahia state), NMNZ M.248331 (1 sh, ex E.S. Gourlay colln.; Brazil, Bahia state).

DISTRIBUTION: Brazil (Piauí, Ceará, Bahia and Minas Gerais states), Paraguay and Uruguay (Simone 2006).

Genus *Hyperaulax* Pilsbry, 1897

Hyperaulax ramagei (E.A. Smith, 1890)

MATERIAL: NMNZ M.205822 (5 sh, ex Suter colln. 5639; Brazil, Fernando de Noronha Island).

DISTRIBUTION: Brazil (Fernando de Noronha Archipelago) (Simone 2006).

Hyperaulax ridleyi (E.A. Smith, 1890)

MATERIAL: NMNZ M.205835 (4 sh, ex Suter colln. 5637; Brazil, Fernando de Noronha Island).

DISTRIBUTION: Brazil (Fernando de Noronha Archipelago) (Simone 2006).

Genus *Macrodontes* Swainson, 1840***Macrodontes dautzenbergianus*** Pilsbry, 1898

MATERIAL: MNZ M.205814 (1 sh, ex Suter colln. 4789;

Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (São Paulo state, Cubatão (Raiz da Serra) and Jandira municipalities) (Simone 2006).

Macrodontes fasciatus (Pfeiffer, 1869)

MATERIAL: NMNZ M.205809 (1 sh, ex Suter colln. 5640;

Brazil, Santa Catarina state).

DISTRIBUTION: Brazil (Santa Catarina state) (Simone 2006).

Genus *Moricandia* Pilsbry &
Vanatta, 1898***Moricandia willi*** (Dohrn, 1883) (Fig. 1N–O)

MATERIAL: NMNZ M.205583 (1 sh, ex Suter colln. 5633;

Brazil, Paraná state), NMNZ M.205809 (1 sh, ex Suter colln.

5640; Brazil, Santa Catarina state), NMNZ M.205834

(2 sh, ex Suter colln. 5641; Brazil, Espírito Santo state).

DISTRIBUTION: Brazil (Minas Gerais and Espírito Santo states) (Simone 2006).

REMARKS: The present records from Paraná and Santa Catarina states greatly extend this species' range to the south.

Genus *Plagiodontes* Doering, 1875
[1877]***Plagiodontes daedalus*** (Deshayes, 1851)

MATERIAL: NMNZ M.205731 (3 sh, ex Suter colln. 9696;

Argentina, Córdoba province, Casa Grande municipality),

NMNZ M.205734 (3 sh, ex Suter colln. 12952; Argentina,

Santiago del Estero province, Sierras de Guasayán), NMNZ

M.255419 (5 sh, ex M. Holloway and A.G. Stevenson colln.;

Argentina, Córdoba [unclear if province or municipality]).

DISTRIBUTION: Argentina (Salta, Catamarca, Santiago del Estero, Tucumán and Córdoba provinces) (Cuezzo *et al.* 2013). The species' occurrence in Brazil (Simone 2006), stemming from the statement of the species' type locality, is erroneous (Pilsbry 1901–02; Parodiz 1939; Pizá & Cazzaniga 2010).***Plagiodontes dentatus*** (Wood, 1828)

MATERIAL: NMNZ M.205735 (3 sh, ex Suter colln. 8594;

Uruguay, Río Negro department, Fray Bentos municipality),

NMNZ M.213218 (5 sh, ex F. Felippone colln., ex. Oliver

colln.; Uruguay, Paysandú [unclear if department or

municipality]), NMNZ M.255418 (6 sh, ex M. Holloway

and A.G. Stevenson colln.; Uruguay, Canelones department, Atlántida municipality, Estación Atlántida), NMNZ

M.255420 (8 sh, ex M. Holloway and A.G. Stevenson colln.;

Uruguay, Canelones [unclear if department or municipality]).

DISTRIBUTION: Uruguay and Argentina (Entre Ríos and

Buenos Aires provinces) (Cuezzo *et al.* 2013).***Plagiodontes patagonicus*** (d'Orbigny, 1835)

MATERIAL: NMNZ M.205752 (1 sh, ex Suter colln. 1496;

Argentina, Patagonia), NMNZ M.233521 (2 sh; Argentina,

Buenos Aires province, Sierra de la Ventana).

DISTRIBUTION: Argentina (Buenos Aires and Río Negro

provinces) (Cuezzo *et al.* 2013).Genus *Spixia* Pilsbry & Vanatta, 1898***Spixia achalana*** (Doering, 1875 [1877])

MATERIAL: NMNZ M.255417 (7 sh, ex M. Holloway

and A.G. Stevenson colln.; Argentina, Córdoba [unclear if province or municipality]).

DISTRIBUTION: Argentina (Córdoba province)

(Cuezzo *et al.* 2013).***Spixia champaquiiana*** (Doering, 1875 [1877])

MATERIAL: NMNZ M.205616 (2 sh, W.S. Eyerdam colln.,

1938; Argentina, La Rioja province, Iliar municipality).

DISTRIBUTION: Argentina (Catamarca, La Rioja, Córdoba

and San Luis provinces) (Cuezzo *et al.* 2013).***Spixia martensii*** (Doering, 1874 [1875]) (Fig. 1P–Q)

MATERIAL: NMNZ M.255415 (8 sh, ex M. Holloway

and A.G. Stevenson colln.; Argentina, Tucumán province).

DISTRIBUTION: Argentina (Salta, Catamarca and Córdoba

provinces) (Cuezzo *et al.* 2013).

REMARKS: This species can be identified by its strong axial markings and the sharply acuminate spire. The present record from Tucumán province fills a gap in the species' known distribution.

Family Orthalicidae

Genus *Orthalicus* Beck, 1837***Orthalicus capax*** Pilsbry, 1930

MATERIAL: NMNZ M.208245 (2 sh, I.M. Worthy

colln.; Brazil, Rio Grande do Norte state, Ceará-Mirim municipality).

DISTRIBUTION: Brazil (Rio Grande do Norte state, Ceará-Mirim municipality) (Simone 2006).

Orthalicus phlogerus (d'Orbigny, 1835)

MATERIAL: NMNZ M.205801 (2 sh, ex Suter colln. 5636; Brazil, São Paulo [unclear if state or municipality]), NMNZ M.325380 (3 sh, ex Suter colln. 3560; Brazil, Bahia state and/or São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (Ceará, Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais and São Paulo states) and Bolivia, and a doubtful record from Chile (Salvador *et al.* 2018b).

Orthalicus prototypus Pilsbry, 1899

MATERIAL: NMNZ M.255413 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Alagoas state, Maceió municipality).

DISTRIBUTION: Venezuela and Brazil (Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Bahia, and Mato Grosso states) (Simone 2006).

Orthalicus pulchellus (Spix, 1827)

MATERIAL: NMNZ M.205754 (2 sh, ex Suter colln. 3560; Brazil, Bahia state and/or São Paulo [unclear if state or municipality]).

DISTRIBUTION: Colombia, Venezuela, French Guiana, Brazil, Bolivia and Paraguay (Simone 2006; Massemin *et al.* 2009).

Family Simpulopsidae

Genus *Leiostracus* Albers, 1850

Leiostracus onager (Beck, 1837)

MATERIAL: NMNZ M.205828 (2 sh, ex Suter colln. 1441; Brazil).

DISTRIBUTION: Brazil (Bahia state) (Salvador & Cavallari 2013).
REMARKS: This species is known with certainty from only a single locality in Bahia state (Salvador & Cavallari 2013), but the data on the present material are too vague to constitute a meaningful new record.

Leiostracus vimineus (Moricand, 1833)

MATERIAL: NMNZ M.248343 (1 sh, ex E.S. Gourlay colln.; Brazil, Bahia state), NMNZ M.255439 (4 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Bahia state).
DISTRIBUTION: Brazil (Bahia and Rio de Janeiro states) (Simone 2006).

Leiostracus vittatus (Spix, 1827)

MATERIAL: NMNZ M.317550 (1 sh, ex I.M. Worthy colln.; Brazil, Bahia state).
DISTRIBUTION: Brazil (Pernambuco and Bahia states) (Simone 2006).

Genus *Rhinus* Martens, 1860

Rhinus heterotrichus (Moricand, 1836)

MATERIAL: NMNZ M.205798 (2 sh, ex Suter colln. 3562; Brazil, Bahia state).

DISTRIBUTION: Brazil (Bahia and Rio de Janeiro states) (Simone 2006).

Genus *Simpulopsis* Beck, 1837

Simpulopsis atrovirens (Moricand, 1836)

MATERIAL: NMNZ M.247370 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Alagoas state, Maceió municipality).

DISTRIBUTION: Brazil (Alagoas and Bahia states) (Salvador *et al.* 2018a).

Simpulopsis decussata Pfeiffer, 1856 (Fig. 2A–B)

MATERIAL: NMNZ M.247369 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Paraná state).

DISTRIBUTION: Brazil (Rio de Janeiro, São Paulo and Santa Catarina states) (Birckolz *et al.* 2016).

REMARKS: This species can be identified by its small size, relatively tall spire, delicate teleoconch sculpture and circular aperture. The present record from Paraná state fills a distribution gap in the species' known range.

Simpulopsis rufovirens (Moricand, 1846)

MATERIAL: NMNZ M.205804 (3 sh, ex Suter colln. 5634; Brazil, Espírito Santo state), NMNZ M.325379 (1 sh, ex Suter colln. 4576 and 4799; Brazil, Rio de Janeiro [unclear if state or municipality]).

DISTRIBUTION: Brazil (Alagoas, Bahia, Espírito Santo and Rio de Janeiro states) (Salvador *et al.* 2018a).

Simpulopsis sulculosa (Férussac, 1821)

MATERIAL: NMNZ M.205823 (7 sh, ex Suter colln. 4576 and 4799; Brazil, Rio de Janeiro [unclear if state or municipality]).

DISTRIBUTION: Brazil (Alagoas, Minas Gerais, Rio de Janeiro, São Paulo, Paraná and Rio Grande do Sul states) (Salvador *et al.* 2018a).

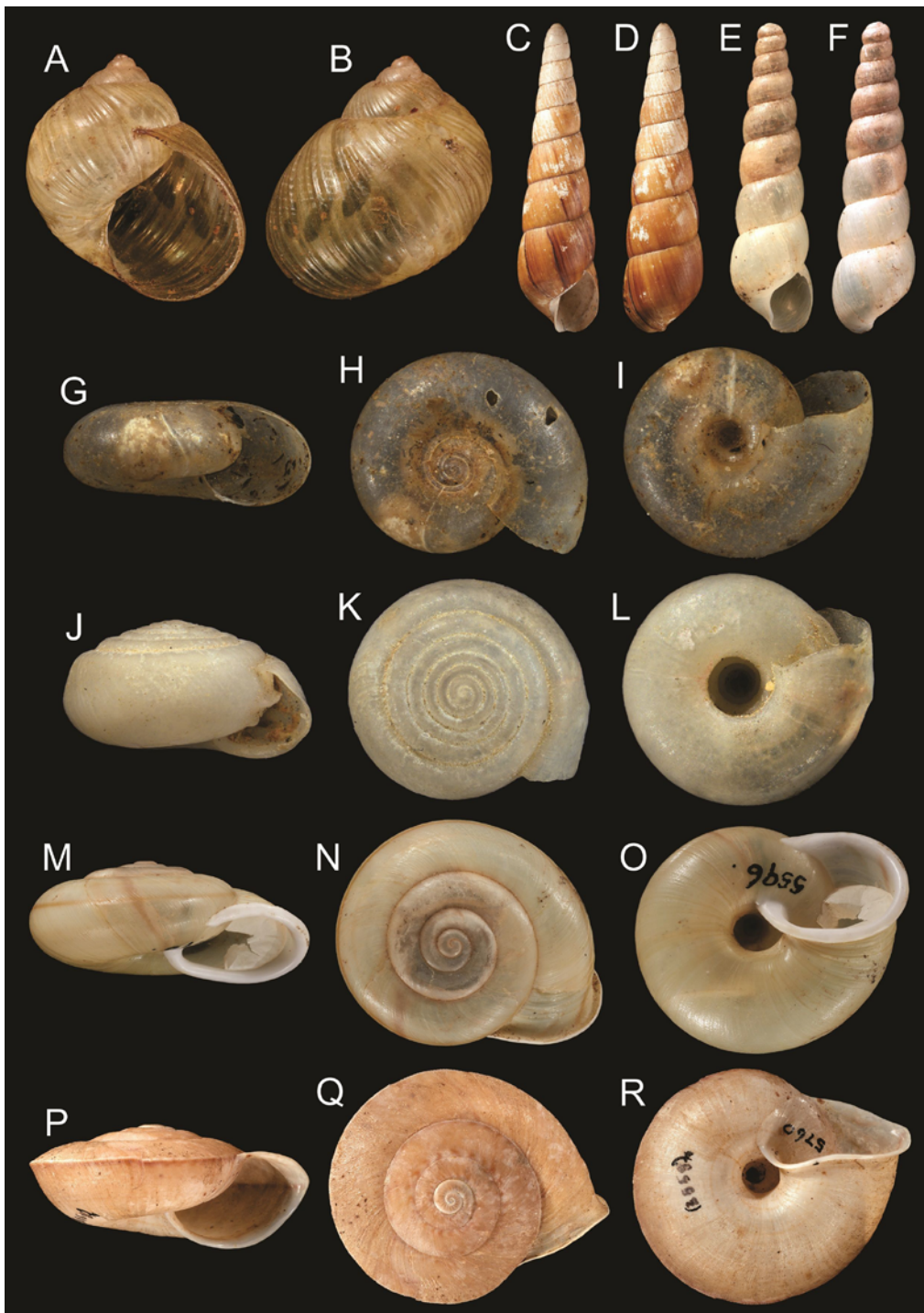


Fig. 2 A–B, *Simpulopsis decussata* Pfeiffer, 1856, NMNZ M.247369 (H = 12.8 mm, D = 10.4 mm). C–D, *Neobeliscus calcarius* (Born, 1778), NMNZ M.255498 (H = 97.2 mm, D = 25.2 mm). E–F, *Subulina octona* (Bruguière, 1789), NMNZ M.205724 (H = 15.5 mm, D = 4.3 mm). G–I, *Happia iheringi* (Clessin, 1888), NMNZ M.205847 (H = 2.0 mm, D = 4.7 mm). J–L, *Ridleya quinquelirata* (Smith, 1890), NMNZ M.205844 (H = 3.1 mm, D = 5.4 mm). M–O, *Epiphragmophora hieronymi* Doering, 1874, NMNZ M.325308 (H = 13.7 mm, D = 27.3 mm). P–R, *Solaropsis punctatus* (Wagner, 1827), NMNZ M.205760 (H = 18.8 mm, D = 41.8 mm).

Superfamily Achatinoidea
 Family Achatinidae
 Genus *Lissachatina* Bequaert, 1950

Lissachatina fulica (Férussac, 1821)

MATERIAL: NMNZ M.325169 (1 sh; Brazil, Espírito Santo state, Guarapari municipality).

REMARKS: The giant African snail is native to east Africa, but has been introduced to several other regions worldwide. The species was introduced to Brazil in the late 1980s, and has established itself in native forests and anthropologically disturbed areas throughout most of the country (Teles & Fontes 2002; Thiengo *et al.* 2007).

Genus *Neobeliscus* Pilsbry, 1896

Neobeliscus calcarius (Born, 1778) (Fig. 2C–D)

MATERIAL: NMNZ M.205746 (3 sh, ex Suter colln. 3555; Brazil, Bahia state), NMNZ M.205756 (2 sh, ex Suter colln. 5632; Brazil, Bahia state), NMNZ M.255498 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Minas Gerais state, Leopoldina municipality), NMNZ M.325173 (1 sh, ex A. Grebneff colln.; Brazil, Bahia state, Itabuna municipality, Pimenteiras).

DISTRIBUTION: Brazil (Amapá, Pará, Bahia and Rio de Janeiro states) (Simone 2006).

REMARKS: This species is easily recognisable by its large, tall-spined shell that usually displays a badly eroded apex. The present record from Minas Gerais state extends the species' known distribution to the south.

Genus *Obeliscus* Beck, 1837

Obeliscus carphodes (Pfeiffer, 1852)

MATERIAL: NMNZ M.205753 (4 sh, ex Suter colln. 2986; Brazil, Espírito Santo state), NMNZ M.205808 (2 sh, ex Suter colln. 3553; Brazil), NMNZ M.205837 (1 sh, ex Suter colln. 3557; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (Simone 2006).

Family Subulinidae
 Genus *Beckianum* Baker, 1961

Beckianum beckianum (Pfeiffer, 1846)

MATERIAL: NMNZ M.205853 (8 sh, ex Suter colln. 3558; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Mexico, Central America, West Indies,

Venezuela, Guyana, Suriname, Brazil (Roraima, Pará, Rio Grande do Norte, Alagoas, Bahia, Rio de Janeiro and São Paulo states; Fernando de Noronha Archipelago) and Peru (Salvador *et al.* 2018a).

Genus *Leptinaria* Beck, 1837

Leptinaria lamellata (Potiez & Michaud, 1838)

MATERIAL: NMNZ M.205723 (8 sh, ex Suter colln. 4780; Brazil, São Paulo state, Piquete), NMNZ M.248321 (1 sh, ex E.S. Gourlay colln.; Brazil, Minas Gerais state, Juiz de Fora municipality).

DISTRIBUTION: West Indies (probably introduced), Colombia, Venezuela, Guyana, French Guiana, Brazil and Bolivia (Simone 2006; Massemín *et al.* 2009).

Genus *Subulina* Beck, 1837

Subulina octona (Bruguière, 1789) (Fig. 2E–F)

MATERIAL: NMNZ M.205724 (5 sh, ex Suter colln. 5633; Brazil, Rio de Janeiro [unclear if state or municipality]).

DISTRIBUTION: Worldwide, tropical (Massemín *et al.* 2009).

REMARKS: The origin of this species is unknown, but it has been introduced to virtually all tropical areas worldwide (Massemín *et al.* 2009). Given that the present specimens are from the collection of Henry Suter, they must have been collected in the late nineteenth or early twentieth centuries; thus the introduction of this species to Rio de Janeiro took place more than a century ago.

Superfamily Streptaxoidea
 Family Streptaxidae
 Genus *Rectartemon* Baker, 1925

Rectartemon depressus (Heynemann, 1868)

MATERIAL: NMNZ M.205835 (2 sh, ex Suter colln. 1342; Brazil, Rio Grande do Sul state).

DISTRIBUTION: Brazil (Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Santa Catarina, and Rio Grande do Sul states), Paraguay (Concepción, San Pedro, Caaguazú, Alto Paraná, Paraguairí, Guairá, and Itapúa departments), Argentina (Misiones, Corrientes, Entre Ríos and Buenos Aires [Martín García Island] provinces) and Uruguay (Paysandú department) (Salvador 2018).

Rectartemon wagneri (Pfeiffer, 1841)

MATERIAL: NMNZ M.205825 (2 sh, ex Suter colln. 1470; Brazil).
 DISTRIBUTION: Brazil and Uruguay (Simone 2006).

Genus *Streptaxis* Gray, 1837*Streptaxis interruptus* Suter, 1900

MATERIAL: NMNZ M.205833 (5 sh, paralectotypes, ex Suter colln. 4020; Brazil, São Paulo state, São Paulo municipality, Perus), NMNZ M.205851 (lectotype, ex Suter colln. 4014; Brazil, São Paulo state, São Paulo municipality, Perus), NMNZ M.262656 (paralectotype, ex Suter colln. 4014; Brazil, São Paulo state, São Paulo municipality, Perus).
DISTRIBUTION: Known only from type locality (Salvador 2019).

Superfamily Acavoidea

Family Strophocheilidae

Genus *Anthinus* Albers, 1850*Anthinus multicolor* (Rang, 1831)

MATERIAL: NMNZ M.205818 (1 sh, ex Suter colln. 4777; Brazil, São Paulo state, Piquete municipality).
DISTRIBUTION: Brazil (Rio de Janeiro and São Paulo states) (Simone 2006).

Genus *Austroborus* Parodiz, 1949*Austroborus lutescens* (King & Broderip, 1832)

MATERIAL: NMNZ M.213219 (1 sh, ex F. Felippone colln. and Oliver colln.; Uruguay, Cerro Largo department), NMNZ M.225451 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Maldonado [unclear if department or municipality]), NMNZ M.225454 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Rocha department, Isla [Island] La Tuna), NMNZ M.313359 (2 sh, I.M. Worthy colln.; Uruguay, Rocha department, La Paloma municipality).
DISTRIBUTION: Brazil (Rio Grande do Sul state) and Uruguay (Sawaya & Petersen 1962; Figueiras 1963).

Genus *Gonyostomus* Beck, 1837*Gonyostomus goniostomus* (Férussac, 1821)

MATERIAL: NMNZ M.248257 (1 sh, ex E.S. Gourlay colln.; Brazil, Rio de Janeiro [unclear if state or municipality]).
DISTRIBUTION: Brazil (Rio de Janeiro state) (Simone 2006).

Genus *Megalobulimus* K. Miller, 1878*Megalobulimus conicus* (Bequaert, 1948)

MATERIAL: NMNZ M.255444 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Bahia state).
DISTRIBUTION: Brazil (Amazonas, Maranhão, Tocantins and Bahia states) (Birckolz *et al.* 2016).

Megalobulimus crassus (Albers, 1850)

MATERIAL: NMNZ M.255446 (4 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Colonia department, Nueva Palmira municipality, Punta Chaparro), NMNZ M.255448 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Colonia department, Nueva Palmira municipality).
DISTRIBUTION: Brazil (Bahia and Paraná states), Paraguay and Uruguay (Simone 2006).

Megalobulimus elongatus (Bequaert, 1948)

MATERIAL: NMNZ M.257285 (1 sh, C.H. Caldini col.; Argentina, Entre Ríos province, Gualeguaychu municipality).
DISTRIBUTION: Brazil (Paraná state), Paraguay and Argentina (Entre Ríos province) (Simone 2006).

Megalobulimus globosus (Martens, 1876)

MATERIAL: NMNZ M.205796 (1 sh, ex Suter colln. 4795; Brazil), NMNZ M.255452 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Montevideo department, Montevideo municipality, Punta Carreta), NMNZ M.255453 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Uruguay, Salto [unclear if department or municipality]).
DISTRIBUTION: Brazil (Rio Grande do Sul state), Paraguay and Argentina (Simone 2006).

Megalobulimus grandis (Martens, 1885)

MATERIAL: NMNZ M.205487 (1 sh, ex Suter colln. 4784; Brazil, São Paulo [unclear if state or municipality]).
DISTRIBUTION: Brazil (Mato Grosso, São Paulo and Santa Catarina states) (Birckolz *et al.* 2016).

Megalobulimus gummatum (Hidalgo, 1870)

MATERIAL: NMNZ M.325168 (1 sh; Brazil, São Paulo state, Iguape municipality).
DISTRIBUTION: Brazil (Bahia, Rio de Janeiro, São Paulo, Paraná and Santa Catarina states) (Birckolz *et al.* 2016).

Megalobulimus haemastomus (Scopoli, 1786)

MATERIAL: NMNZ M.233520 (1 sh, ex Suter colln. 1341; Brazil, Rio Grande do Sul state).
DISTRIBUTION: Brazil (central and southern regions), Paraguay, Argentina and Uruguay (Simone 2006).

Megalobulimus oblongus (Müller, 1774)

MATERIAL: NMNZ M.211976 (1 sh, ex Suter colln. 4786; Brazil, São Paulo [unclear if state or municipality]), NMNZ M.255445 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Argentina, Santiago del Estero province), NMNZ M.305824 (1 sh, ex I.M. Worthy colln.; O.M. Olalla col. Dec/1936; Brazil, Amazonas state, Itacoatiara municipality, Lago [Lake] Baptista).

DISTRIBUTION: South America (Simone 2006).

Megalobulimus oliveirai (Bequaert, 1948)

MATERIAL: NMNZ M.255449 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Alagoas state, Maceió municipality).

DISTRIBUTION: Brazil (Sergipe and Alagoas states) (Salvador *et al.* 2018a).

Megalobulimus ovatus (Müller, 1774)

MATERIAL: NMNZ M.206320 (1 sh; Brazil), NMNZ M.206323 (1 sh, ex Suter colln. 1382; Brazil).

DISTRIBUTION: Brazil (Rio de Janeiro, São Paulo, Paraná and Santa Catarina states) (Simone 2006).

Megalobulimus paranaquensis (Pilsbry & Ihering, 1900)

MATERIAL: NMNZ M.205490 (1 sh, ex Suter colln. 4783; Brazil, Paraná state, Paranaguá municipality).

DISTRIBUTION: Brazil (São Paulo, Paraná and Santa Catarina states) (Fontenelle & Miranda 2017).

Genus *Mirinaba* Morretes, 1952***Mirinaba erythrosoma*** (Pilsbry, 1895)

MATERIAL: NMNZ M.248257 (2 sh, ex Suter colln. 4794; Brazil, São Paulo [unclear if state or municipality]).

DISTRIBUTION: Brazil (São Paulo, Paraná, Santa Catarina and Rio Grande do Sul states) (Simone 2006).

Genus *Strophocheilus* Spix, 1827***Strophocheilus debilis*** Bequaert, 1948

MATERIAL: NMNZ M.255459 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Alagoas state, São Miguel municipality).

DISTRIBUTION: Brazil (Alagoas and Bahia states) (Simone 2006).

Strophocheilus pudicus (Müller, 1774)

MATERIAL: NMNZ M.205794 (1 sh, ex Suter colln. 1412; Brazil), NMNZ M.255450 (2 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Bahia state).

DISTRIBUTION: Brazil (Paráíba, Bahia and Santa Catarina states) (Birckolz *et al.* 2016).

Superfamily Rhytidoidea

Family Scolodontidae

Genus *Happia* Bourguignat, 1889***Happia iheringi*** (Clessin, 1888) (Fig. 2G–I)

MATERIAL: NMNZ M.205847 (6 sh, ex Suter colln. 4022; Brazil, São Paulo state, Piquete).

DISTRIBUTION: Brazil (Rio Grande do Sul state, Taquara and Rio Grande (Bolaxa) municipalities) (Simone 2006).

REMARKS: This record, from São Paulo state, extends the species' range to the north.

Happia vitrina (Wagner, 1827)

MATERIAL: NMNZ M.205839 (syntype of *Streptaxis tumescens* Suter, 1900, ex Suter colln. 4013; Brazil, São Paulo state, Alto da Serra region and Cubatão municipality), NMNZ M.205840 (9 sh, ex Suter colln. 4021; Brazil), NMNZ M.205841 (2 sh, ex Suter colln. 3564; Brazil, São Paulo [unclear if state or municipality]), NMNZ M.262655 (syntype of *Streptaxis tumescens* Suter, 1900, ex Suter colln. 4013; Brazil, São Paulo state, Alto da Serra region and Cubatão municipality).

DISTRIBUTION: Brazil (Bahia, Rio de Janeiro, São Paulo, Paraná and Santa Catarina states) (Birckolz *et al.* 2016).

***Happia* sp.**

MATERIAL: NMNZ M.246965 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Paraná state).

REMARKS: This juvenile cannot confidently be identified to species level.

Genus *Ridleya* Ancey, 1901***Ridleya quinquelirata*** (Smith, 1890) (Fig. 2J–L)

Helix (*Ophiogyræ*?) *quinquelirata* (Smith, 1890: 500, pl. 30, figs 7–7c)

MATERIAL: NMNZ M.205844 (19 sh, ex Suter colln. 5635; Brazil, Fernando de Noronha Island).

DISTRIBUTION: Brazil (Fernando de Noronha Archipelago) (Simone 2006).

REMARKS: This species is the only member of the genus *Ridleya*, but its classification remains problematic. Ever since its description, the species has been allocated to very distinct families: Morretes (1949) classified it in Endodontidae, a typically Pacific family, and later authors followed suit (Lopes & Alvarenga 1955; Zilch 1959–60). Simone (2006) placed it in Camaenidae, but without offering an explanation for this new classification. Miquel and Cádiz Lorca (2008) reverted to the Endodontidae allocation, stating that the protoconch

is sculptured by five well-marked spiral ribs. It has been common practice in revisionary work dealing with supposed South American endodontids to classify them in the related family Charopidae instead (Salvador & Simone 2013), and more recent classifications reflect this (Salgado & Coelho 2003; Bank 2017b). However, in the original description of the species, Smith (1890) states that it is closely related to *Helix entodonta* (Pfeiffer, 1859), from Ecuador. The latter species is now known as *Systrophia (Entodina) entodonta* (family Scolodontidae), but the peculiar specific epithet might have misled Morretes (1949) into believing that the species belonged to Endodontidae. Despite Smith (1890) mentioning live specimens, they were never collected and could not be found in other museum collections consulted (see also comments by Lopes & Alvarenga, 1955).

This article supports the placement of this species in Scolodontidae because of the following conchological features, which are more typical of that family: (1) the comparatively high number of whorls, which are tightly coiled; (2) the whorl profile, with slight angulations; (3) the aperture shape, with a lightly bent palatal region; (4) the reflexed peristome; (5) the presence of apertural dentition; (6) the wide-open umbilicus; and (7) the smooth protoconch. The apertural teeth, in particular, are widely known in Scolodontidae, but not in Charopidae (although they are widespread in Endodontidae). Moreover, contrary to the claim of Miquel and Cádiz Lorca (2008), the protoconchs of all specimens examined for the present work (from the NMNZ, MZSP and NHMUK collections, including the lot those authors mentioned, MZSP 31677, and the type series, NHMUK 1988.6.27.135–140) are completely smooth. It is still possible that the protoconch sculpture has eroded and this would thus be a bias in the preservation of the specimens, as some (including the present material from the NMNZ) seem to be in a sub-fossil state. As soon as live specimens are found, further molecular and anatomical studies will be necessary to settle the classification of this species.

Genus *Scolodonta* Doering, 1875

Scolodonta sp. (King & Broderip, 1832)

MATERIAL: NMNZ M.325382 (1 sh, ex M. Holloway and A.G. Stevenson colln.; Brazil, Paraná state).

REMARKS: This juvenile cannot confidently be identified beyond genus level.

Superfamily Punctoidea Family Charopidae Genus *Radiodiscus* Pilsbry, 1906

Radiodiscus compactus (Suter, 1900)

MATERIAL: NMNZ M.205772 (lectotype, ex Suter colln. 2175; Brazil, Rio Grande do Sul state), NMNZ M.262657 (paralectotype, ex Suter colln. 2175; Brazil, Rio Grande do Sul state).

DISTRIBUTION: Brazil (Rio Grande do Sul state), Paraguay (Guairá department), Argentina (Jujuy, Tucumán and Córdoba provinces) (Miquel *et al.* 2007).

Radiodiscus patagonicus (Suter, 1900)

MATERIAL: NMNZ M.205771 (syntype, ex Suter colln. 4012; Argentina, Santa Cruz province).

DISTRIBUTION: Argentina (Santa Cruz province) (Miquel *et al.* 2007).

Genus *Rotadiscus* Pilsbry, 1926

Rotadiscus amancaezensis (Hidalgo, 1869)

MATERIAL: NMNZ M.205856 (holotype of *Pyramidula schuppi* Suter, 1900, ex Suter colln. 4011; Brazil, Rio Grande do Sul state, São Leopoldo municipality).

DISTRIBUTION: Bolivia (Santa Cruz department), Brazil (Rio de Janeiro, Santa Catarina and Rio Grande do Sul states), Argentina (Jujuy, Salta, Misiones, Tucumán, Catamarca and Córdoba provinces) and Uruguay (Maldonado and Montevideo departments), with further unconfirmed records from Peru and Chile (Miquel *et al.* 2004, 2007; Simone 2006).

Superfamily Gastrodontoidea
 Family Euconulidae
 Genus *Pseudoguppya* Baker, 1925

Pseudoguppya semenlini (Moricand, 1845)
 MATERIAL: NMNZ M.205849 (1 sh, ex Suter colln. 1658; Brazil, Rio Grande do Sul state).
 DISTRIBUTION: Brazil (Alagoas, Bahia, Rio de Janeiro, São Paulo, Paraná, Santa Catarina and Rio Grande do Sul states), Paraguay, Argentina and Uruguay (Salvador *et al.* 2018a).

Superfamily Succineoidea
 Family Succineidae
 Genus *Succinea* Draparnaud, 1801

Succinea manaosensis Pilsbry, 1926
 MATERIAL: NMNZ M.325472 (3 sh; C.M. Cunha col. 06/ Jul/2017; Brazil, Paraíba state, Areia municipality).
 DISTRIBUTION: Brazil (Simone 2006).

Superfamily Helicoidea
 Family Epiphragmophoridae
 Genus *Epiphragmophora* Doering, 1875

Epiphragmophora guevarai Cuezco 2006
 MATERIAL: NMNZ M.255815 (3 sh, ex M. Holloway and A.G. Stevenson colln.; Argentina, Santiago del Estero province, Sumampa municipality).
 DISTRIBUTION: Argentina (Santiago del Estero and Córdoba provinces) (Cuezco 2006).
Epiphragmophora hieronymi Doering, 1875 (Fig. 2M–O)
 MATERIAL: NMNZ M.325308 (1 sh; W.S. Eyerdam col. Oct/1938; Argentina, Jujuy province).
 DISTRIBUTION: Argentina (Tucumán, Salta, Catamarca, Formosa, La Rioja and San Luis provinces) (Cuezco 2006).
 REMARKS: This species can be identified by its flattened spire and whorls, the shallow suture, the pale colour of the shell and the presence of a single peripheral coloured band on the body whorl (Cuezco 2006). The present record extends the species' range to the northwest, into Jujuy province.
Epiphragmophora trenquelleonis (Pfeiffer, 1851)
 MATERIAL: NMNZ M.255814 (4 sh, ex M. Holloway and A.G. Stevenson colln.; Argentina, Córdoba [unclear if province or municipality]).

DISTRIBUTION: Bolivia, Paraguay and Argentina (Santiago del Estero, Córdoba, San Luis, Catamarca, La Rioja, Chaco and Formosa provinces) (Cuezco 2006).

Epiphragmophora trigrammephora (d'Orbigny, 1838)
 MATERIAL: NMNZ M.205596 (1 sh; W.S. Eyerdam col. Oct/1938; Argentina, Jujuy province).
 DISTRIBUTION: Bolivia, Paraguay, Argentina (Jujuy, Salta, Formosa, Chaco and Santiago del Estero provinces) (Cuezco 2006).

Epiphragmophora walshi Cuezco, 2006
 MATERIAL: NMNZ M.205730 (3 sh, ex Suter colln.; NW Argentina).
 DISTRIBUTION: Argentina (Salta province) (Cuezco 2006).

Superfamily Sagdoidea
 Family Solaropsidae
 Genus *Polygyratia* Gray, 1847

Polygyratia polygyrata (Born, 1778)
 MATERIAL: NMNZ M.233517 (1 sh, ex Suter colln. 5793; Brazil).
 DISTRIBUTION: Brazil (Bahia state) (Simone 2006).

Genus *Solaropsis* Beck, 1837

Solaropsis fairchildi Bequaert & Clench, 1938
 MATERIAL: NMNZ M.248106 (1 sh, ex E.S. Gurlay colln.; Brazil, Minas Gerais state, Sete Lagoas municipality), NMNZ M.248429 (1 sh, ex E.S. Gurlay colln.; Brazil, Minas Gerais state, Diamantina municipality).
 DISTRIBUTION: Brazil (Tocantins, Goiás and Minas Gerais states) (Birckolz *et al.* 2016).

Solaropsis pascalia (Cailliaud, 1857)
 MATERIAL: NMNZ M.255771 (1 sh, ex M. Holloway and A.G. Stevenson colln. 5793; Brazil, Alagoas state, Maceió municipality).
 DISTRIBUTION: Brazil (Pará and Alagoas states) (Simone 2006).

Solaropsis punctatus (Wagner, 1827) (Fig. 2P–R)
 MATERIAL: NMNZ M.205760 (2 sh, ex Suter colln. 3559; Brazil, Espírito Santo state).
 DISTRIBUTION: Brazil (Piauí, Pernambuco and Bahia states) (Simone 2006).
 REMARKS: This is the first record from Espírito Santo state, extending the species' range to the south.

Conclusion

The 99 species of South American land snails in the Museum of New Zealand Te Papa include the type specimens of six taxa described by Suter (1900): *Pupa iheringi*, *Streptaxis interruptus*, *Streptaxis tumescens*, *Pyramidula patagonica patagonica*, *Pyramidula patagonica compacta* and *Pyramidula schuppi*. These taxa are currently accepted as, respectively: *Gastrocopta iheringi* (Gastrocoptidae); *Streptaxis interruptus* (Streptaxidae); *Happia vitrina* (Scolodontidae); and *Radiodiscus patagonicus*, *Radiodiscus compactus* and *Rotadiscus amancaezensis* (Charopidae). For more information on their taxonomy, see Salvador (submitted).

The following 13 species have significant increments in their distribution (range extension or filling of distributional ‘gaps’): *Auris chrysostoma*, *Auris ilheocola*, *Auris melanostoma* and *Thaumastus nehringi* (Bulimulidae); *Callionepion iheringi* (Megaspiridae); *Cyclodontina fusiformis*, *Moricandia willi* and *Spixia martensii* (Odontostomidae); *Simpulopsis decussata* (Simpulopsidae); *Neobeliscus calcarius* (Achatinidae); *Happia iheringi* (Scolodontidae); *Epiphragmophora hieronymi* (Epiphragmophoridae); and *Solaropsis punctatus* (Pleurodontidae). While the locality data on old museum lots may occasionally be wrong, especially for those acquired from private collections, this does not seem to apply here. Most new records come from the material of Henry Suter (1841–1918), a New Zealand malacologist who received South American specimens mainly from fellow researchers working in the continent, especially Hermann F.A. von Ihering (1850–1930), a zoologist from São Paulo.

The amount of new information that can be extracted from old specimens is a sound reminder of how important museum collections are for the storage of information and, eventually, as sources for new discoveries (Allmon 1994). Furthermore, collections are a register of historical distributions. Most of the species records presented here date from the first half of the twentieth century. It is not known whether the species can still be found in the localities in which they were originally recorded, especially given the rate at which habitats are being destroyed in South America (e.g. Simone & Salvador 2016). Future surveys and collection efforts are indispensable for determining the true geographical range of these species and how their present range compares with the historical one.

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