
First record of *Trachemys dorbigni* (Duméril & Bibron, 1835) (Testudines, Emydidae) in a remnant of Mesophytic Semideciduous Forest of São Paulo State, southeastern Brazil

TIAGO GOMES DOS SANTOS^{1,3}, TIAGO DA SILVEIRA VASCONCELOS¹,
FLAVIO DE BARROS MOLINA² and HUSSAM ZAHER²

¹ *Laboratório de Herpetologia, Departamento de Zoologia, Instituto de Biociências, Universidade Estadual Paulista (UNESP), Caixa Postal 199, 13506-900 Rio Claro, SP, Brazil.*

² *Museu de Zoologia da Universidade de São Paulo (MZUSP), divisão científica: anfíbios e répteis, Avenida Nazaré, 481, Ipiranga, 04263-000 São Paulo, Brasil, www.mz.usp.br.*

³ Corresponding author: frogomes@yahoo.com.br, www.rc.unesp.br

TRACHEMYS DORBIGNI (Duméril & Bibron, 1835) is a cryptodire turtle that belongs to the Emydidae family (Uetz et al., 1995-2008; Bickham et al., 2007). According to Cabrera (1998) and Fritz & Havas (2006) the distribution of *T. dorbigni* encompasses northeastern Argentina, Uruguay, and southern Brazil (state of Rio Grande do Sul). *T. dorbigni* is a typical semi-aquatic turtle of Pampean Province (e.g., Lema & Fabián-Beurmann, 1977; Lema & Ferreira, 1990; Lema, 1994; Cechin et al., 2002; Bérnills et al., 2008), inhabiting lentic and lotic water bodies, dams, lagoons, ponds, floodplains and rivers of pristine and anthropic areas (Gomes & Krause, 1982; Lema et al., 1984; Lema & Ferreira, 1990; Achaval & Olmos, 2003; Santos et al., 2005; Quintela et al., 2006; Bager et al., 2007; Bujes & Verrastro, 2007). This turtle is omnivorous (Lema & Ferreira, 1990; Cabrera, 1998; Achaval & Olmos, 2003; Bujes et al., 2007) and its nesting season begins in early spring (September) extending until summer (February) in southern populations (Krause et al., 1982; Bager et al., 2007). Here, we recorded for the first time the presence of *Trachemys dorbigni* in a natural habitat of São Paulo State, southeastern Brazil, extending the species known range by approximately 750 Km from the nearest natural occurrence.

RESULTS AND DISCUSSION

One female *T. dorbigni* was recorded on October 2006 at Morro do Diabo State Park (MDSP), municipality of Teodoro Sampaio, walking in forest edge (22° 36'58.6" S and 52° 09'57.9" W; 265 m

a.s.l.), 50 m from a permanent pond inside forest and approximately at 500 m from the Paranapanema River, an affluent of Parana River. The specimen was hand captured, photographed and released at the same location (Fig.1). The MDSP belongs to the Paranaense Province and its vegetation is characterized by Mesophytic Semideciduous Forest, a physiognomy of Atlantic Domain (sensu Ab'Saber, 1977), and Cerrado savanna (Durigan & Franco, 2006). The present record of *T. dorbigni* out of the Pampean Province possibly represents a recent colonization or a human introduction in southeastern Brazil (see discussion in Pritchard & Trebbau, 1984). The range of *Trachemys dorbigni* includes the Argentinean, Uruguay and Paraná rivers drainages (Cabrera, 1998; Uetz et al., 1995-2008), and therefore its record in MDSP (Fig. 2) may represent a dispersal of this turtle species to the upper basin of the Paraná River. Fifty years ago, when turtles were not common in the Brazilian pet trade, Adler (1958 a,b) described three specimens of *T. dorbigni* from Ribeira River, collected near the junction with Itararé River, São Paulo State, an affluent of Paranapanema River. On the other hand, human introduction cannot be ruled out because *T. dorbigni* is commonly sold as a pet in Brazil (Molina & Rocha, 1987; Lema & Ferreira, 1990; Molina, 1996). Its frequent presence in urban areas in many cities outside Rio Grande do Sul state (Molina, 2006) confirms how easily people release them. Introduced specimens of *Trachemys dorbigni* have already been reported in other Brazilian states like Paraná (southern Brazil), Minas Gerais



Figure 1. A female *Trachemys dorbigni* from Morro do Diabo State Park (MDSP), municipality of Teodoro Sampaio, São Paulo State, southeastern Brazil. Photograph by A.R. Quilice.

(southeastern Brazil), Goiás (central Brazil), Bahia (northeastern Brazil) and Tocantins (northern Brazil) (Pritchard & Trebbau, 1984; Seidel, 1989; Iverson, 1992; Moreira, 1994; Malvasio, 2005). Future studies are necessary to investigate the natural and introduced range of *Trachemys dorbigni* in south America and the possible impacts that established human introduced populations may have on natural aquatic environments.

ACKNOWLEDGEMENTS

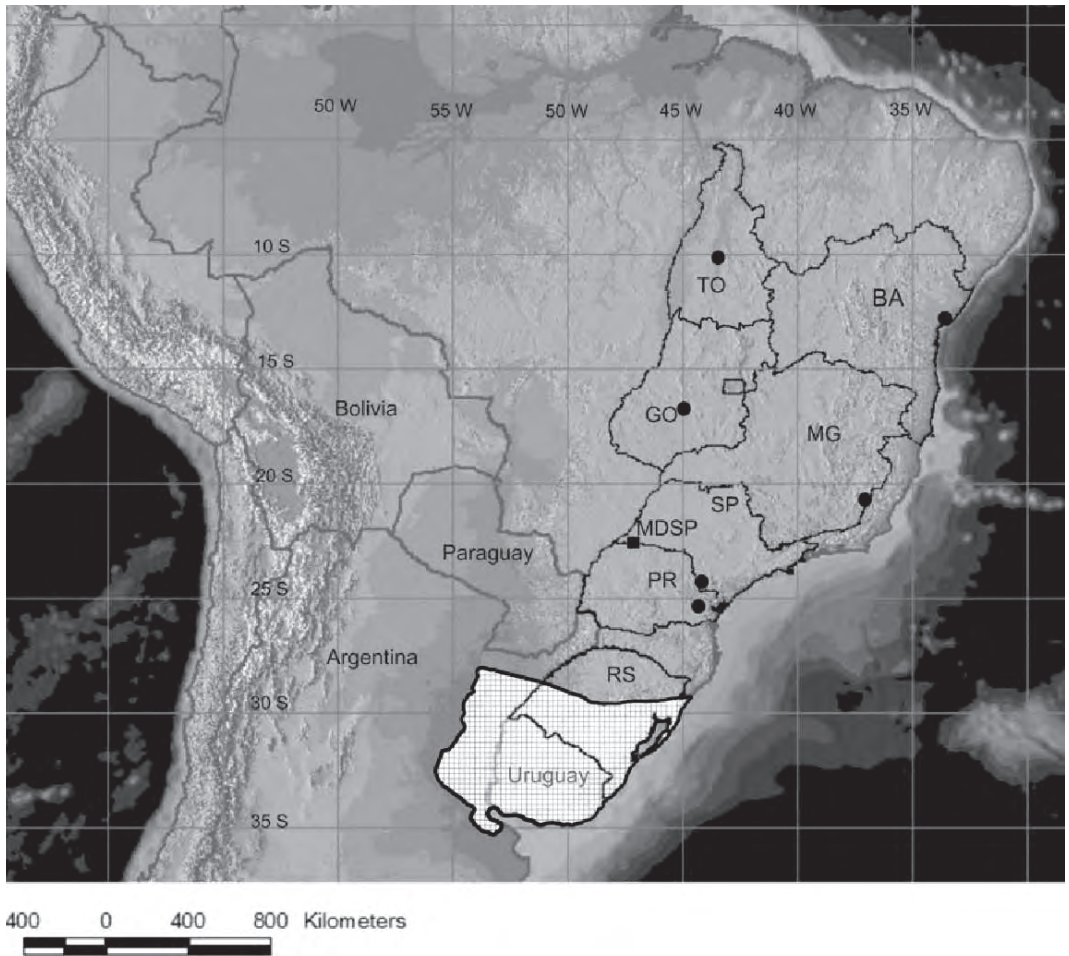
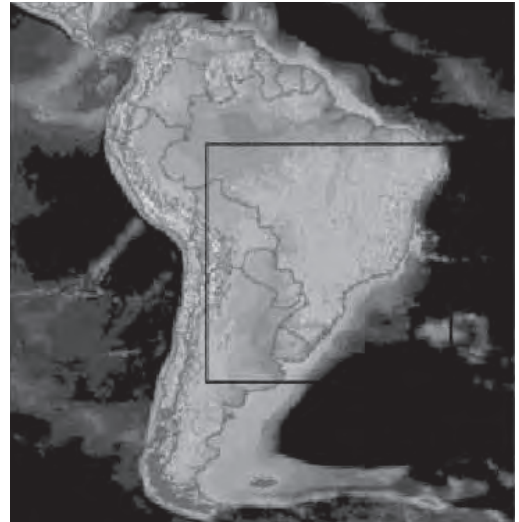
The authors are grateful to A.R. Quilice for the photograph of *T. dorbigni*, the staff of Morro do Diabo State Park for authorization and logistic support during in the field, P.S. Martinez for the construction of the map, and to FAPESP (process 02/13602-4), CAPES, and CNPq for the financial support.

REFERENCES

Ab'Saber, A.N. (1977). Os Domínios Morfoclimáticos na América do Sul. *Geomorfol.* **52**, 1-159.
Achaval, F. & Olmos, A. (2003). *Anfibios y Reptiles del Uruguay*. Montevideo: Graphis Impresora. 136 pp.
Adler, K.K. (1958a). An abnormal *Pseudemys*

dorbigni (Duméril & Bibron) from Brazil. *J. Ohio Herpetol. Soc.* **1**, 13.
Adler, K.K. (1958b). List of the specimens of Chelonia and Crocodilia preserved in the author's private collection. *Ohio Herpetol. Soc. Spec. Publ.* **2**, 8-21.
Bager, A., De Freitas, T.R.O. & Krause, L. (2007). Nesting ecology of a population of *Trachemys dorbignyi* (Emydidae) in southern Brazil. *Herpetologica* **61**, 56-65.
Bérnills, R.S. Giraudo, A.R. Carreira, S. & Cechin S.Z. (2008). Répteis das porções subtropical e temperada da região Neotropical. *Cienc. & Amb.* **35**, 101-136.
Bickham, J.W., Iverson, J.B., Parham, J.F., Philippen, H.D., Rhodin, A.G.J., Shaffer, H.B., Spinks, P.Q. & Van Dijk, P.P. (2007). An annotated list of modern turtle terminal taxa with comments on areas of taxonomic instability and recent change. *Chelonian Res. Monogr.* **4**, 173-199.
Bujes, C.S. & Verrastro, L. (2007). Biología e conservação de quelônios do Parque Estadual Delta do Jacuí - RS, Brasil. In: *Conhecer para Gerenciar: Aspectos Ambientais e Sociais da Hidrográfica Lago Guaíba*. pp. 334-341, Guerra, T. (Ed.). Porto Alegre: Nova Prova.

Figure 2. Geographic distribution of *Trachemys dorbigni* in south America: white grid represents the natural species distribution in the Pampean Province of Argentina, Uruguay and Brazil (state of Rio Grande do Sul, RS) (modified from Lema & Ferreira [1990]); dots indicate specimens of *T. dorbigni* previously found in the Brazilian states of Paraná (PR), São Paulo (SP), Goiás (GO), Minas Gerais (MG), Bahia (BA) and Tocantins (TO); and square represents the species record in the MDSP, state of São Paulo (SP), southeastern Brazil.



- Bujes, C.S. Ely, I. & Verrastro, L. (2007). *Trachemys dorbigni*. *Diet. Herpetol. Rev.* **38**, 335.
- Cabrera, M. (1998). Las Tortugas Continentales de Sudamérica Austral. Argentina: Privately printed. 108 pp.
- Cechin, S.Z. Hartmann, P.A. & Kopp, K.A. (2002). Répteis. In: *Quarta Colônia: Inventários Técnicos*. pp. 207-214, Itaquí, J. (Ed.). Santa Maria: Condesus Quarta Colônia.
- Durigan, G. & Franco, G.A.D.C. (2006). Vegetação. In: *Parque Estadual do Morro do Diabo: Plano de Manejo*. pp. 111-118, Faria, H. H. (Ed.). Santa Cruz do Rio Pardo: Editora Viena.
- Fritz, U. & Havas, P. (2006). *Checklist of Chelonians of the World*. Dresden: German Federal Ministry of Environment, Nature Conservation and Nuclear Safety and Museum of Zoology Dresden. 230 pp.
- Gomes, N. & Krause, L. (1982). Lista preliminar de répteis da Estação Ecológica do Taim, Rio Grande do Sul. *Rev. Bras. Zool.* **1**, 71-77.
- Iverson, J.P. (1992). *A Revised Checklist with Distribution Maps of the Turtles of the World*. Richmond: Privately printed. 358 pp.
- Krause, L. Gomes, N. & Leyser, K.L. (1982). Observações sobre a nidificação e desenvolvimento de *Chrysemys dorbignyi* (Dumeril & Bibron, 1835) (Testudines, Emydidae) na Estação Ecológica do Taim, Rio Grande do Sul. *Rev. Bras. Zool.* **1**, 79-90.
- Lema, T. de & Fabián-Beurmann, M.E. (1977). Levantamento preliminar dos répteis da região Brasil-Uruguai. *Iheringia (Zool.)* **50**, 61-92.
- Lema, T. de & Ferreira, M.T.S. (1990). Contribuição ao conhecimento dos Testudines do Rio Grande do Sul (Brasil) – lista sistemática comentada (Reptilia). *Acta Biol. Leopold.* **12**, 125-164.
- Lema, T. de (1994). Lista comentada dos répteis ocorrentes no Rio Grande do Sul, Brasil. *Comun. Mus. Cienc. PUCRS Ser. Zool.* **7**, 41-150.
- Lema, T. de, Fabián-Beurmann, M.E., Araújo, M.L., Alvez, M.L.M. & Vieira, M.I. (1980). Lista de répteis encontrados na região da Grande Porto Alegre, Estado do Rio Grande do Sul, Brasil. *Iheringia (Zool.)* **55**, 27-36.
- Lema, T. de, Vieira, M.I. & Araújo, M.L. (1984). Fauna reptiliana do norte da grande Porto Alegre, Rio Grande do Sul, Brasil. *Rev. Bras. Zool.* **2**, 203-227.
- Malvasio, A. (2005). Base de Dados sobre Espécies Exóticas Invasoras em I3N-Brasil. <www.institutohorus.org.br>. (Accessed: May 2008).
- Molina, F.B. (1996). Os quelônios e sua biologia: o tigre d'água, *Trachemys dorbignyi*. *Chelonia* **16**, 2.
- Molina, F.B. (2006). Ambientes urbanos e a fauna de répteis no Estado de São Paulo: entre desconhecidos, desaparecidos e indesejáveis. In: *Parques Urbanos e Meio Ambiente: Desafios de Uso*. pp. 203-222. Glezer, R. & Mantovani, M. S.M. (Eds.), São Paulo: Parque Cientec/USP.
- Molina, F.B. & Rocha, M.B. (1987). *Tartaruga japonesa: biologia e manejo*. *Aquacult.* **3**, 27-28.
- Moreira, G.M. (1994). Dados preliminares do projeto de distribuição, status populacional e manejo dos quelônios de água doce da Mata Atlântica do Brasil. *Chelonia Neotrop.* **1**, 9-11.
- Pritchard, P.C.H. & Trebbau, P. (1984). The turtles of Venezuela. *Contrib. Herpetol.* **2**, 1-403.
- Quintela, F.M., Loebmann, D. & Gianuca, N.M. (2006). Répteis continentais do município de Rio Grande, Rio Grande do Sul, Brasil. *Biociências* **14**, 180-188.
- Santos, T.G., Kopp, K.A., Spies, M.R., Trevisan, R. & Cechin, S.Z. (2005). Répteis do Campus da Universidade Federal de Santa Maria, RS, Brasil. *Biota Neotrop.* **5**. <www.biotaneotropica.org.br>. (Accessed May 2005).
- Seidel, M.E. (1989). *Trachemys dorbigni*. *Cat. Amer. Amph. Rept.* **486**, 1-3.
- Uetz, P., Etzold, T. & Chenna, R. (1995-2008). The EMBL Reptile Database. <reptile-database.org>. (Accessed: May 2008).