



Paleontologia em Destaque, v. 36, n. 75, p. 73-76, 2021
e-ISSN 1807-2550 – Sociedade Brasileira de Paleontologia

Scientific Note

RENUMBERING THE TYPES OF *Inoceramus wanderley* and *Inoceramus remoratus* (MOLLUSCA: BIVALVIA), AND SPECIMENS OF SPIRIFERIDA (BRACHIOPODA) FROM BRAZIL: SOLVING A TAXONOMIC AND CURATORIAL PROBLEM

RAFAEL COSTA DA SILVA 
BIANCA GOBBI MONTEIRO

Serviço Geológico do Brasil - CPRM, Museu de Ciências da Terra, Av. Pasteur, 404, Urca. 22290-255, Rio de Janeiro, RJ, Brasil.
rafael.costa@cprm.gov.br, gobbianca@gmail.com

doi: 110.4072/paleodest.2021.36.75.05

Recebido em: 17 de Novembro de 2021

Aceito em: 06 de Dezembro de 2021

RENUMBERING THE TYPES OF *Inoceramus wanderley* and *Inoceramus remoratus* (MOLLUSCA: BIVALVIA), AND SPECIMENS OF SPIRIFERIDA (BRACHIOPODA) FROM BRAZIL: SOLVING A TAXONOMIC AND CURATORIAL PROBLEM

RAFAEL COSTA DA SILVA 
BIANCA GOBBI MONTEIRO

Serviço Geológico do Brasil - CPRM, Museu de Ciências da Terra, Av. Pasteur, 404, Urca. 22290-255, Rio de Janeiro, RJ, Brasil.
rafael.costa@cprm.gov.br, gobbianca@gmail.com

Keywords: types, Inoceramidae, Mollusca, Açú Formation, Cotinguiba Formation.

In 1962, Duarte & Santos published the record of fossil invertebrates from the Açú Formation, locality of Olho d'Água do Vieira, municipality of Russas, state of Ceará, Brazil, including the description of new taxa. The Açú Formation (Apodi Group) is part of a Cretaceous (Albian-Turonian) transgressive fluvio-marine sequence, Potiguar Basin Drift Supersequence (Neto *et al.*, 2007). Duarte & Santos recorded remains of isopod crustaceans, molluscs, fish scales and plant fragments. The Isopoda were then described as a new genus and species, *Unusuropode castroi* Duarte & Santos, 1962, and one of the molluscs was described as a new species, *Mytilus rosadoi* Duarte & Santos, 1962. Other bivalves were determined as *Brachidontes* sp. Several samples were designated as holotypes and paratypes of these new species. All invertebrate samples related to this study were numbered and included in the Fossil Invertebrate Collection of the Departamento Nacional de Produção Mineral (National Department of Mineral Production), currently Museu de Ciências da Terra, MCTer - Serviço Geológico do Brasil - CPRM (Museum of Earth Sciences, MCTer - Geological Survey of Brazil - CPRM), among the numbers MCT.I.4795 to MCT.I.4850 (MCT replaces the old acronym DGM and the current format of collection records is MCT.X.0000, where X is the collection code and 0000 is the object number).

However, the same collection numbers were used in another study, Santos, (1963), to describe fossils from “Calcário Sapucari” (Sapucari Limestone), including the description of two new species of bivalve molluscs *Inoceramus wanderleyi* Santos, 1963 and *Inoceramus remoratus* Santos, (1963). Several samples were assigned to these two new species. All samples, including holotypes and paratypes, were included in the same Fossil Invertebrates Collection between numbers MCT.I.4800 and MCT.I.4819. The samples come from a site located at km 444.500 of the Leste Brasileiro Railroad, in the stretch between Aracaju and Socorro, municipality of Nossa Senhora do Socorro, state of Sergipe. According to Campos Neto *et al.* (2007), the Sapucari limestone is currently part of the Sapucari Member of the Cotinguiba Formation, Sergipe-Alagoas Basin (Cretaceous, Cenomanian-Coniacian).

The collection numbers of fossils from Duarte & Santos (1962) also coincide with unpublished invertebrates identified in the MCTer Fossil Invertebrates Catalog as *Gaudryceras sommeri*, *Pachydiscus alvaro-albertoi* (*sic*) and *Coelopoceras* (*sic*) *cearense* (Mollusca: Cephalopoda, numbered between MCT.I.4795 and MCT.I.4797), and *Australospirifer iheringi* (Brachiopoda: Spiriferida) from the Devonian of the Paraná Basin, numbered between MCT.I.4820 and MCT.I.4850.

The reasons for the duplication in numbers are unknown, but it is possible that the collection numbers used by Duarte & Santos (1962) was not promptly transcribed into the collection catalog, which were then completed with specimens from Santos (1963). This fact implies an erroneous collection designation for part of the specimens, in particular some of the types, affecting the stability of these taxa. Thus, it is necessary to revise and correct the designation of numbering of collections assigned to specimens through a formal taxonomic procedure to be carried out in this note. The problem only affected specimens deposited in the MCTer Fossil Invertebrates Collection. The fish scales described by Duarte & Santos (1962), deposited in the Fossil Fish Collection, continue with the correct original numbering.

The original numbers were kept preferentially to the specimens from Duarte & Santos (1962), respecting the principle of priority, and the specimens with repeated collection numbers were transferred to new numbers in the MCTer Fossil Invertebrates Catalog. The complete list of renumbered specimens can be seen in Table 1. Here follow the taxonomic accounts of *Inoceramus wanderleyi* and *Inoceramus remoratus*, correcting the numbering problem.

Table 1. List of renumbered specimens, originally published or registered with existing numbers, from the Fossil Invertebrates Collection of the Museu de Ciências da Terra (Museum of Earth Sciences).

Locality	Identification	New collection number	Number of specimens	Type status	Previous collection number	
without origin (probably Riachuelo Formation, SE)	<i>Gaudryceras sommeri</i>	MCTL7088	?		DGM 4795-I	
	<i>Pachydiscus alvaro-albertoi</i>	MCTL7089	2		DGM 4796-I	
	<i>Coelopoceras cearense</i>	MCTL7090	?		DGM 4797-I	
km 441.700 Federal Railroad Leste Brasileiro, Nossa Senhora do Socorro, SE, Cretaceous	<i>Inoceramus wanderleyi</i>	MCTL7091	1	Paratype	DGM 4806-I	
		MCTL7092	1	Paratype	DGM 4807-I	
		MCTL7093	1	Paratype	DGM 4808-I	
		MCTL7094	1	Paratype	DGM 4809-I	
		MCTL7095	3	Paratype	DGM 4810-I	
		MCTL7096	3	Paratype	DGM 4811-I	
		MCTL7097	4	Paratype	DGM 4812-I	
		MCTL7098	3		DGM 4813-I	
		MCTL7099	2		DGM 4814-I	
	<i>Inoceramus sp.</i>	MCTL7100	3		DGM 4815-I	
		MCTL7101	3		DGM 4816-I	
		MCTL7102	2		DGM 4817-I	
		<i>Inoceramus remoratus</i>	MCTL7103	1	Holotype	DGM 4818-I
	MCTL7104		2		DGM 4819-I	
	Right bank of Arroio São Domingos (São Domingos stream), tributary of Santa Rosa (about 1 km from the Tibagi-Erval de Baixo road), Tibagi, PR, Devonian	<i>Australospirifer iheringi</i>	MCTL7105	6		DGM 4820-I
			MCTL7106	6		DGM 4821-I
			MCTL7107	6		DGM 4822-I
			MCTL7108	8		DGM 4823-I
			MCTL7109	7		DGM 4824-I
MCTL7110			9		DGM 4825-I	
MCTL7111			7		DGM 4826-I	
MCTL7112			3		DGM 4827-I	
MCTL7113			1		DGM 4828-I	
MCTL7114			6		DGM 4829-I	
MCTL7115			4		DGM 4830-I	
MCTL7116			5		DGM 4831-I	
MCTL7117			5		DGM 4832-I	
MCTL7118			6		DGM 4833-I	
MCTL7119			5		DGM 4834-I	
MCTL7105			6		DGM 4820-I	
MCTL7106			6		DGM 4821-I	
MCTL7107			6		DGM 4822-I	
MCTL7108			8		DGM 4823-I	
MCTL7109	7		DGM 4824-I			
MCTL7110	9		DGM 4825-I			

Table 1. Cont.

Locality	Identification	New collection number	Number of specimens	Type status	Previous collection number
Right bank of Arroio São Domingos (São Domingos stream), tributary of Santa Rosa (about 1 km from the Tibagi-Erval de Baixo road), Tibagi, PR, Devonian	<i>Australospirifer iheringi</i>	MCTL7111	7		DGM 4826-I
		MCTL7112	3		DGM 4827-I
		MCTL7113	1		DGM 4828-I
		MCTL7114	6		DGM 4829-I
		MCTL7115	4		DGM 4830-I
		MCTL7116	5		DGM 4831-I
		MCTL7117	5		DGM 4832-I
		MCTL7118	6		DGM 4833-I
		MCTL7119	5		DGM 4834-I
		MCTL7120	5		DGM 4835-I
		MCTL7121	5		DGM 4836-I
		MCTL7122	5		DGM 4837-I
		MCTL7123	1		DGM 4838-I
		MCTL7124	2		DGM 4839-I
		MCTL7125	2		DGM 4840-I
		MCTL7126	4		DGM 4841-I
		MCTL7127	5		DGM 4842-I
		MCTL7128	3		DGM 4843-I
		MCTL7129	2		DGM 4844-I
		MCTL7130	4		DGM 4845-I
MCTL7131	2		DGM 4846-I		
MCTL7132	4		DGM 4847-I		
MCTL7133	1		DGM 4848-I		
MCTL7134	1		DGM 4849-I		
MCTL7135	1		DGM 4850-I		

Phylum MOLLUSCA Linnaeus, 1758
 Class BIVALVIA Linnaeus, 1758
 Family INOCERAMIDAE Giebel, 1852
Inoceramus Sowerby, 1814
Inoceramus wanderleyi Santos, 1963

Holotype. MCT.I.4800 (originally described as DGM 4800-I).

Paratypes. MCT.I.4801 to MCT.I.4805 (originally described as DGM 4801-I to DGM 4805-I) and MCT.I.7091 to MCT.I.7097 (renumbered, originally described as DGM 4806-I to DGM 4812-I).

Remarks. The holotype of *I. wanderleyi* keeps the original collection number, but part of the paratypes had been described with collection numbers previously occupied by the holotype of *Mytilus rosadoi* and paratypes and other specimens of *Unusuropode castroi*, thus receiving new numbers.

Inoceramus remoratus Santos, 1963

Holotype. MCT.I.7103 (originally described as DGM 4818-I).

Other specimens. MCT.I.7104 (originally designated as DGM 4819-I).

Remarks. Only two specimens of *I. remoratus* were described by Santos (1963), and only the first one was designated as type. It is recommended the specimen MCT.I.7104 to be designated as paratype in a future review of the species.

Scientific collections are the main repositories of paleontological specimens, in particular type-specimens, which bear the name of the taxa. Its analysis allows testing hypotheses of phylogenetic relationships, in addition to paleoecological, paleobiogeographic and biomechanical aspects. For those reasons, they must be available for study in museums and other institutions, with their updated documentation. The problem corrected here highlights the need for strict protocols for museological documentation. Additionally, it reinforces the role of the curators as responsible for monitoring all stages of research related to the use of data and specimens from collections, providing an adequate and accurate referencing in scientific publications.

ACKNOWLEDGEMENTS

To Manoela Voitovicz Cardoso and Diogenes de Almeida Campos by critical reading. To FAPERJ (Proc. E-26/210.294/2021) for support.

REFERENCES

- Campos Neto, O.P.A.; Lima, W.S. & Cruz, F.E.g., 2007. Bacia de Sergipe-Alagoas. *Boletim de Geociências da Petrobras*, **15**:405–415.
- Duarte, L. & Santos, R.S. 1962. Fósseis do arenito Açú. *Anais da Academia Brasileira de Ciências*, **34**:58–61.
- Neto, O.C.P.; Soares, U.M.; Silva, J.G.F.; Roesner, E.H.; Florencio, C.P. & Souza, C.A.V. 2007. Bacia Potiguar. *Boletim de Geociências da Petrobras*, **15**:357–369.
- Santos, M.E.C.M. 1963. Inoceramus do Calcário Sapucari, Estado de Sergipe. *Anais da Academia Brasileira de Ciências*, **35**:357–359.