

ABSTRACTS



2nd Workshop on Actualistic Taphonomy

Rio Grande do Sul, Brazil

19-21 July 2021 – Online

Centro de Estudos Costeiros, Limnológicos e Marinhos, CECLIMAR,
UFRGS Litoral Norte

Edited by Matias N. Ritter, Fernando Erthal, Rodrigo S. Horodyski

ABSTRACTS VOLUME

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AN ONLINE EVENT HELD BY



Programa de Pós-Graduação
GEOCIÊNCIAS



ORGANIZING COMITTEE

Prof. Matias Ritter

Departamento Interdisciplinar, Campus Litoral Norte, UFRGS

Prof. Fernando Erthal

Departamento de Paleontologia e Estratigrafia, Instituto de Geociências, UFRGS

Prof. Rodrigo Scalise Horodyski

Programa de Pós-Graduação em Geologia da Universidade do Vale do Rio dos
Sinos, UNISINOS

COLLABORATORS

Anna Assumpção, Julia Ribeiro, Laura Porto Hornung, Luísa Crauss, Valentina
Santos

SCIENTIFIC REFEREES

Claudio G. de Francesco

Fernando Erthal

Gabriela Hassan

Matias N. Ritter

Rodrigo S. Horodyski

Sabrina C. Rodrigues

VOLUME PRESENTATION

As announced during the First Workshop held in Montevideo (TAAS 2017; Figure below), we are organizing the second Workshop on Actualistic Taphonomy in South America. The idea of a small meeting (as a workshop *stricto sensu*) is to be continued, given the extraordinarily successful results of the first event. Covid-19 has been forcing institutional decisions that are affecting directly any type of people gathering and agglomerations. In this sense, we decided to postpone our 2nd TAAS to 2021.

The event is supported by the Centro de Estudos Costeiros, Limnológicos e Marinhos (CECLIMAR), Imbé, north coast of Rio Grande do Sul State, Brasil.

Matias N. Ritter
General Chair of 2nd TAAS
Imbé, July, 2021

SCHEDULE

19/07/2021

09:00 – 09:30 – Welcome

09:30 – 10:00 – Aguiar et al. – MYTILIDAE SHELLS AS AN AVAILABLE SURFACE FOR SCLEROBIONTS COLONIZATION: IMPLICATIONS TO ECOLOGY AND PALEONTOLOGY

10:00 – 10:30 – Coffee break

10:30 – 11:00 – Archuby & Roche – TAPHONOMIC FIDELITY AND THE DETECTION OF ANTHROPIC IMPACTS IN SHALLOW WATER MARINE BENTHIC COMMUNITIES OF SAN ANTONIO BAY, NORTHERN PATAGONIA, ARGENTINA

11:00 – 11:30 – Assumpção et al. – CONSERVATION PALEOBIOLOGY THROUGH COMPOSITIONAL FIDELITY OF MOLLUSCS IN THE PATOS LAGOON ESTUARY

11:30 – 12:00 – Battista & Schultz – “SAMPLING BIAS” IN VERTEBRATE PALEONTOLOGY: STATE OF THE ART AND COMMENTS

12:00 – 14:00 – Lunch break

14:00 – 14:30 – Bavaresco et al. – TAPHONOMY OF SHELLY DEPOSITS FROM SÃO FRANCISCO DO SUL ESTUARY: PRELIMINARY APPROACH

14:30 – 15:00 – Fernandino & Ellif – ANTHROPOQUINAS: RECENTLY FORMED SEDIMENTARY ROCKS WITH TECHNOFOSSILS IN SOUTHERN BRAZIL

15:00 – 15:30 – Montalvo et al. – EFECTOS DE LA METEORIZACIÓN SOBRE MOLARIFORMES DE VIZCACHA (LAGOSTOMUS MAXIMUS, CHINCHILLIDAE, CAVIOMORPHA) Y SU APLICACIÓN AL REGISTRO FÓSIL

15:30 – 16:00 – Borrazzo – QUANTIFYING PSEUDOARTIFACTS IN THE ARCHAEOLOGICAL RECORD: AN ACTUALISTIC APPROACH IN LITHIC ARTIFACT TAPHONOMY

16:00 – 16:30 – Coffee break

16:30 – 17:00 – Ricardi-Branco et al. – EARLY DIAGENESIS OF SEEDS ASSOCIATED WITH LIMESTONES SOILS

17:00 – 17:30 – Casati et al. – CORRELAÇÃO FACIOLÓGICA E TAFONÔMICA ENTRE DEPÓSITOS CONCHÍFEROS HOLOCÊNICOS LAGUNARES E SAMBAQUIS, NA COSTA CENTRO SUL DE SANTA CATARINA, BRASIL

17:30 – 18:00 – Cenci & Horodyski – FERN-INSECT INTERACTIONS AS A RELATIVE PROXY TO CONTINENTAL PALEOCLIMATE

18:00 – 18:30 – Francesco & Hassan – DIFFERENTIAL PRESERVATION OF MOLLUSKS IN PAMPEAN SHALLOW LAKES: IMPLICATIONS FOR THE UNDERSTANDING OF THE PAMPEAN LACUSTRINE FOSSIL RECORD

20/07/2021

09:00 – 09:30 – L’Heureux et al. – SEDIMENTOS, GEOQUÍMICA Y HUESOS:
TAFONOMÍA ACTUALÍSTICA EN EL INTERFLUVIO DE LOS RÍOS GALLEGOS Y
CHICO, PATAGONIA, ARGENTINA

09:30 – 10:00 – Ghilardi et al. – DECADAL PERSPECTIVES ON BOUCHARDIA SHELL
ACCUMULATIONS FROM THE NORTHERN COAST OF THE BRAZILIAN SHELF,
SOUTH ATLANTIC

10:00 – 10:30 – Coffee break

10:30 – 11:00 – Gómez et al. – APROVECHAMIENTO DE UN EXPERIMENTO
NATURAL EN TAFONOMÍA ACTUALISTA

11:00 – 11:30 – Hassan & Diaz – EXPERIMENTAL TAPHONOMY OF FRESHWATER
DIATOMS: DISCRIMINATING BETWEEN CHEMICAL AND PHYSICAL CAUSES OF
FRUSTULE FRAGMENTATION

11:30 – 12:00 – Hornung et al. – POSSÍVEL SELEÇÃO POR ONTOGENIA NA
PREDACÃO DE GASTRÓPODES SOBRE A ESPÉCIE DE BIVALVE MARINHO
GLYCYMERIS LONGIOR

12:00 – 14:00 – Lunch break

14:00 – 14:30 – Leoni et al. – ASPECTOS TAFONÔMICOS DE TAMANDUA
TETRADACTYLA LINNAEUS, 1758, CAVERNA LAPA DO BODE, BAHIA

14:30 – 15:00 – Limeira Junior et al. – DIFFERENCES OF MICROTOPOGRAPHY IN
MOLLUSCS DISSOLVED VALVES: TAPHONOMIC IMPLICATIONS

15:00 – 15:30 – Rodrigues et al. – DRILLING PREDATION RECORDED ON
BOUCHARDIID SHELLS (BRACHIOPODA, RHYNCHONELLIFORMEA) IN THE
CENOZOIC FOSSIL RECORD OF SOUTH AMERICA

15:30 – 16:00 – Schmidt-Neto et al. – THE HISTORY BEHIND PAGURIZED SHELLS

16:00 – 16:30 – Coffee break

16:30 – 17:00 – Lopes – DIFFERENTIAL PRESERVATION OF MODERN AND FOSSIL
SHELLS OF THE BIVALVE ANOMALOCARDIA BRASILIANA (GMELIN, 1791) IN
SOUTHERN BRAZIL

17:00 – 17:30 – Luz et al. – HOTSPOTS OF FIDELITY: LIVE-DEAD FAITHFULLY OF
MARINE OSTRACODS SHED LIGHT ON THE STRUCTURE OF THE MICROFOSSIL
RECORD

17:30 – 18:00 – Martínez – ASPECTO, EDAD, COMPOSICIÓN Y PRESERVACIÓN DE
CONCHILLAS DE ACUMULACIONES MODERNAS EN UNA PLAYA DE URUGUAY

18:00 – 18:30 – Medeiros et al. – TRAÇOS MICROENDOLÍTICOS EM CONCHAS DE
BIVALVES DE AMBIENTES MARINHOS SUBTROPICAIS E SEU POTENCIAL EM
RECONSTRUÇÃO PALEOAMBIENTAL

21/07/2021

09:00 – 09:30 – Ozán et al. – ROCK ART TAPHONOMY: INORGANIC AND ORGANIC CHANGES OF EXPERIMENTAL PAINTINGS IN PATAGONIA

09:30 – 10:00 – Petró et al. – DISSOLUTION BIAS IN THE PLANKTONIC FORAMINIFERA ASSEMBLAGES FROM THE SOUTH ATLANTIC

10:00 – 10:30 – Coffee break

10:30 – 11:00 – Poptis et al. – PALAEOOMETRY AND ACTUALISTIC TAPHONOMY: THE IMPORTANCE OF TESTING TECHNICAL LIMITATIONS AND PARAMETERS ON THE STUDY OF FOSSIL AND EXPERIMENTAL SAMPLES

11:00 – 11:30 – Ribeiro et al. – FATORES QUE CONTROLAM A OCORRÊNCIA DE MICROFÓSSIS EM AMBIENTES MARINHOS ASSOCIADOS A ARCOS VULCÂNICOS (PENÍNSULA ANTÁRTICA)

11:30 – 12:00 – Ritter et al. – TO BE OR NOT TO BE A FOSSIL: A DILEMMA ON THE QUATERNARY PALEONTOLOGY

12:00 – 14:00 – Lunch break

14:00 – 14:30 – Lopes & Ferigolo – ARISTOTLE'S 'WHEEL PARADOX' AND THE TAPHONOMY OF THE CERITHID GASTROPOD CERITHIUM ATRATUM (BORN, 1778) FROM CONCEIÇÃO LAGOON, SOUTHERN BRAZIL

14:30 – 15:00 – Rojas et al. – TAFONOMÍA ACTUALISTA DE ENSAMBLES DE VALVAS EN PLAYAS DE LA COSTA URUGUAYA

15:00 – 15:30 – Saldanha et al. – MODERN TO PENNSYLVANIAN FJORDS: TAPHOFACIES AND SUBTLE VARIATIONS IN CIRCULATION AT THE LATE PALEOZOIC ICE AGE

15:30 – 16:00 – Santos et al. – PARASITIC LIKE-TRACES ON MARINE MOLLUSKS: NEW SOUNDS FROM SOUTHERN BRAZIL

16:00 – 16:30 – Coffee break

16:30 – 17:00 – Scarabino et al. – IMPLICANCIAS TAFONÓMICAS DE LA RELACIÓN AVES-MOLUSCOS ACUÁTICOS EN AMBIENTES COSTEROS URUGUAYOS Y RIOGRANDENSES

17:00 – 17:30 – Sierra et al. – TAFONOMÍA EXPERIMENTAL: INTERVENCIÓN DE MICROORGANISMOS EN LA PRESERVACIÓN DE INSECTOS ACUÁTICOS DE LOS RÍOS DE SAN LUIS, ARGENTINA

17:30 – 18:00 – Silva et al. – DRILLING PREDATION IN RECENT ECHINOIDS (CLYPEASTEROIDEA, MELLITIDAE) FROM THE NORTHERN COAST OF THE BRAZILIAN SHELF, SOUTH ATLANTIC

18:00 – 18:30 – Guidelines for PALAIOS special issue & Closure

SUPPORT



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DIFFERENTIAL PRESERVATION OF MOLLUSKS IN PAMPEAN SHALLOW LAKES: IMPLICATIONS FOR THE UNDERSTANDING OF THE PAMPEAN LACUSTRINE FOSSIL RECORD

Claudio G. De Francesco, Gabriela S. Hassan

Instituto de Investigaciones Marinas y Costeras (IIMyC), UNMdP-CONICET, Mar del Plata,
Argentina, CC 1260, Correo Central, B7600WAG

Premortem and postmortem processes significantly influence the formation of the molluscan fossil record in freshwater environments. Despite their importance for paleoenvironmental studies, they remain poorly understood. In Pampean shallow lakes, Holocene shell deposits of the euryhaline snail *Heleobia parchappii* show a relation with salinity, as preservation seems to be favored by brackish-saline water conditions. To explore if this pattern may respond to ecological (i.e., differential survival and reproduction) or taphonomic processes acting differently in freshwater and brackish-saline environments, we conducted a field-based study comparing premortem (abundance, length, width/length ratio and crushing resistance in living and dead shells) and postmortem (fragmentation, fine-scale surface alteration and loss of periostracum of dead shells) attributes along a modern lacustrine salinity gradient (0.5-40 ppt) in the Pampa plain of Argentina. Snails from saline lakes were smaller and more rotund than those from freshwater lakes, exhibiting higher abundances and resistances in death assemblages. They showed the highest fidelity in shell length and the best states of preservation, which were similar to values recorded in fossil shells. We concluded that shells deposited in saline lakes are better preserved than those deposited in freshwater lakes, giving rise to highly abundant shell concentrations, analogues to those shell-rich fossil levels recorded in Pampean lakes. Such abundance does not reflect the natural abundances of living snails, but is the result of the combined influence that less destructive environments and better shell intrinsic properties have on preservation.