UNIVERSITÀ DEGLI STUDI DI MILANO

SELEZIONE PUBBLICA, PER ESAMI, A N. 1 POSTO DI CATEGORIA D - AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI, CON RAPPORTO DI LAVORO SUBORDINATO A TEMPO DETERMINATO DELLA DURATA DI 36 MESI PRESSO L'UNIVERSITÀ DEGLI STUDI DI MILANO - DIPARTIMENTO DI SCIENZE DELLA TERRA ARDITO DESIO - MACROFOSSILI, NELL'AMBITO DEL PROGETTO "DIPARTIMENTI DI ECCELLENZA 2023-2027" - CODICE 22344

La Commissione giudicatrice della selezione, nominata con Determina Direttoriale n. 17677 del 08/11/2023, composta da:

Prof. Marco Balini	Presidente
Prof. Dawid Adam Iurino	Componente
Dott.ssa Cristina Rita Serenella Lombardo	Componente
Dott.ssa Antonia Bianca Samore'	Segretaria

comunica i quesiti relativi alla prova orale:

Quesito n.1

1. Fasi nella preparazione di campioni di roccia per la ricerca di conodonti.

2. Il candidato legga e traduca il seguente testo estratto dall'articolo "Posenato R. & Crippa G. (2023) - An insight into the systematics of Plicatostylidae (Bivalvia), with a description of Pachygervillia anguillaensis n. gen. n. sp. from the Lithiotis Facies (Lower Jurassic) of Italy. Riv. It. Paleontol. Strat., 129(3): 551-572."

Abstract. The *Lithiotis* facies represents an Early Jurassic global bioevent characterized by a remarkable spread of gregarious bivalves, which produced large sedimentary bodies in tropical shallow-water marine environments. The most peculiar and common genera *Lithiotis*, *Cochlearites* and *Lithioperna*, with aberrant and extremely elongated or strongly flattened shells, have been studied since the second half of the nineteenth century. Despite numerous systematic studies, their phylogenetic relationship with the other bivalve families is still uncertain. The *Lithiotis* facies yields other bivalve genera, among which a large multivincular mytiloid, provisionally determined as *Isognomon (Mytiloperna)* sp. ind. or *Mytiloperna* sp., is recorded in the literature. This taxon is here studied from a systematic point of view to clarify its taxonomic position and solve the open nomenclature adopted in the past. Here, we propose a new genus *Pachygervillia* and a new species *Pachygervillia anguillaensis*. The stratotype is located in the lower part of the Rotzo Formation (Calcari Grigi Group, Lower Jurassic), while the type locality is in the Lessini Mountains (Verona Province, Trento Platform, Southern Alps). This new species is characterized by a thick aragonitic inner shell layer with a fibrous, irregular, spherulitic, prismatic microstructure combined with a nacreous middle layer, both also occurring in species of the genera *Lithiotis* and *Cochlearites* of the family Plicatostylidae. This microstructural layering is here proposed as the main taxonomic character of the family, which is here emended and divided into the following two subfamilies: Plicatostylinae, yielding *Lithiotis* and *Cochlearites* with stick-like shells, and Pachygervilliinae nov. subfam., yielding *Gervilleioperna*, *Lithioperna*, *Pachygervillia* n. gen., and *Pachyperna*, previously placed within the subfamily Isognomoninae.

Quesito n.2

1. Significato innovativo dell'uso dei cesellatori nella preparazione di macrofossili

2. Il candidato legga e traduca il seguente testo estratto dall'articolo "Posenato R. & Crippa G. (2023) - An insight into the systematics of Plicatostylidae (Bivalvia), with a description of Pachygervillia anguillaensis n. gen. n. sp. from the Lithiotis Facies (Lower Jurassic) of Italy. Riv. It. Paleontol. Strat., 129(3): 551-572."

The syntypes of *P. taramellii* from the "Durga-horizonte" of Vajo del Paradiso are embedded in a marly rocky matrix and were deformed during diagenetic processes, thus the anterior area is usually folded inward (e.g., Pl. 4, figs 1-4). Therefore, the shell thickness is reduced, and the original morphology (e.g., shell inflation) is not completely detectable in the available fossil material. According to Dames (1891) *Perna taramellii* is characterized by a much higher intraspecific variability than according to Boehm's description, but this variability could also be related to deformation, caused by sediment compaction. *Perna taramellii* is cited by Geyer (1977: 314) as *Isognomon taramellii* (Boehm). However, Geyer (1977) assigned to Boehm's species the specimens figured by Berti Cavicchi et al. (1971: pl. 3, figs. 1–3) which were later classified by Accorsi Benini (1979) as *Lithioperna scutata* (Dubar, 1948).

The last occurrence of this species is probably recorded by "*Mytiloperna* sp." specimens occurring in the upper part (early Toarcian) of the *Lithiotis* Member of the Apennine Carbonate Platform (Posenato et al. 2018, fig. 9). A precise specific determination of these specimens is impossible because they are embedded in hard limestone. However, the greater dimensions of the pallial cavity and the lower shell thickness make them close to *P. taramellii*.

Milano, 23 novembre 2023

La Commissione

Prof. Marco Balini Presidente

Prof. Dawid Adam Iurino Componente

Dott.ssa Cristina Rita Serenella Lombardo Componente

Dott.ssa Antonia Bianca Samore' Segretaria