

# **Article**



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## The identity of *Rana lutea* Molina, 1782 (Amphibia, Anura)

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#### **Abstract**

Rana lutea is one of the two anuran species described in 1782 by the Chilean born priest and naturalist Juan Ignacio Molina, and its nomenclatural history is confusing. After a detailed revision of the pertinent literature, we demonstrate that Bufo thaul Schneider, 1799, is a junior objective synonym of Rana lutea Molina, 1782, but based on the usage of both nomina, we revert the precedence and consider Rana lutea Molina, 1782 as a nomen oblitum whereas Bufo thaul Schneider, 1799 is a nomen protectum. Thus, the authorship of the species currently known as *Pleurodema thaul* (Lesson, 1826) changes to *Pleurodema thaul* (Schneider, 1799).

**Key words:** Anura, Leiuperinae, Leptodactylidae, *Pleurodema thaul*, synonymy

### Introduction

The Jesuit Juan Ignacio Molina (1740–1829) was the first South-American born naturalist who applied consistently the Linnaean system of binominal nomenclature in his descriptions of plants and animals (for biographical data, see Briones Toledo 1986). His Saggio sulla storia naturale del Chili, published in Italian in 1782, contains a section on Chilean reptiles, noting the presence of: (1) two species of turtles, one marine, "le Coriacee", and another inhabiting the freshwater lakes of the south, "le Lutarie" (never recorded posteriorly), that can be assimilated respectively to the Linnaean species *Testudo coriacea* and *T. lutaria*; (2) a terrestrial lizard named *Lacerta palluma*, the nomenclatural status of which was stabilized by the International Commission on Zoological Nomenclature (ICZN) in its Opinion 2118 (Anonymous 2005); (3) the Salamandra acquatica nera already described by Feuillée (1714), that Molina assimilated with the species that Linnaeus (1758) named Lacerta caudiverbera (see Myers and Stothers 2006 for its subsequent history), and (4) one snake, mistakenly identified as Coluber aesculapii (i.e., Coluber 176-42 following Linnaeus notation). Regarding anurans, Molina mentioned the presence of two frogs, "la Esculenta" and "la Temporaria" (probably referring to the European frogs Rana esculenta and Rana temporaria of Linnaeus), a terrestrial toad (as "Rospi terrestri") apparently identical to those from Italy, and two other aquatic anurans, named "Arunco" and "Thaul" by local Araucanians.

Rana arunco (Molina 1782: 216) was characterized as a little bigger than Rana temporaria, possessing the same color and four palmate limbs, the anterior with four fingers and the posterior with five toes, with almost imperceptible claws; another vernacular name for this species was "Genco", translated as "the father of the waters". The second species, locally named "Thaul", was described under the nomen Rana lutea (Molina 1782: 216), and was characterized as similar to but smaller than Rana esculenta, with completely yellow and warty skin and limbs similar to those of the Arunco, although the toes were not completely joined by a membrane.

As noted by Hachim Lara (2008), an early Molina manuscript along with all his material possessions were confiscated before his departure to Italy due to the Jesuit expulsion from the Spanish domains by King Carlos III in 1767. Thus, both nomina were published based on Molina's remembrances (not on actual specimens), and no