Establishment of a lectotype for the species *Plesiochelys langii* Rütimeyer, 1873

Jérémy Anquetin

Section d'archéologie et paléontologie, Office de la culture, République et Canton du Jura, Porrentruy, Switzerland

ABSTRACT

Background. In a recent paper, we proposed a lectotype for the species *Plesiochelys langii Rütimeyer, 1873*. However, we failed to register this publication in ZooBank as required by the International Commission on Zoological Nomenclature (ICZN) for electronic publication. Although our conclusions remain unchanged, this particular nomenclatural act cannot be considered as published under ICZN regulations. **Results.** The present work fulfills the requirements of the ICZN for a lectotype designation and has been registered in ZooBank.

INTRODUCTION

Anquetin, Püntener & Billon-Bruyat (2014) recently reassessed the taxonomy of the Late Jurassic eucryptodiran turtles from the Swiss and French Jura Mountains. They proposed a lectotype for the species *Plesiochelys langii Rütimeyer, 1873*, but failed to register this electronic publication in ZooBank as required by the International Commission on Zoological Nomenclature (ICZN). As a result, this nomenclatural act cannot be considered as published under ICZN regulations.

The present work has been registered in ZooBank (see below) and now fulfills the requirements of the ICZN for a lectotype designation.

MATERIAL AND METHODS

The electronic version of this article in Portable Document Format (PDF) will represent a published work according to the International Commission on Zoological Nomenclature (ICZN), and hence the lectotype designation contained in the electronic version is effectively published under that Code from the electronic edition alone. This published work has been registered in ZooBank, the online registration system for the ICZN. The ZooBank LSID (Life Science Identifier) can be resolved and the associated information viewed through any standard web browser by appending the LSID to the prefix "http://zoobank.org/." The LSID for this publication is: urn:lsid:zoobank.org:pub:1F654A2A-8DBA-4574-ACD0-8FEBE393979C. The online version of this work is archived and available from the following digital repositories: PeerJ, PubMed Central and CLOCKSS.

Corresponding author
Jérémy Anquetin,
j.anquetin@gmail.com

SYSTEMATIC PALEONTOLOGY

TESTUDINES *Batsch, 1788*
EUCRYPTODIRA *Gaffney, 1975*
PLESIOCHELYIDAE *Baur, 1888*
Plesiochelys langii* *Rütimeyer, 1873
1873 *Plesiochelys Langii*. Rütimeyer [new species]
1965 *Plesiochelys solodurensis*. Bräm [subjective synonymy]
2014 *Plesiochelys etalloni*. Anquetin, Deschamps & Claude [subjective synonymy]

Taxonomic assessment
Invalid name, subjective synonym of *Plesiochelys etalloni* (*Pictet & Humbert, 1857*).

Type material
NMS 123, a sub-complete carapace missing the right and posterior margins. Herein designated as lectotype (see Remarks, below). NMS 126, a shell heavily encrusted with pyritic mineralizations (paralectotype).

Type horizon and locality
Solothurn Turtle Limestone, uppermost member of the Reuchenette Formation (Kimmeridgian, Late Jurassic), vicinity of Solothurn, Canton of Solothurn, Switzerland.

Illustrations of type
Rütimeyer (*1873*: plate VI, Figs. 1 and 2); *Anquetin, Püntener & Billon-Bruyat* (*2014*: Figs. 2K and 2L).

Remarks
The following text is mostly verbatim from *Anquetin, Püntener & Billon-Bruyat (2014)*. *Rütimeyer (1873)* erected *Plesiochelys langii* based on three specimens from Solothurn, which together form the original syntype series: NMS 123, NMS 124, and NMS 126. A recent review of the available material concluded that NMS 123 and NMS 126 do not significantly differ from other specimens referred to *P. etalloni*. Therefore, *P. langii* was synonymized with *P. etalloni* (*Anquetin, Deschamps & Claude, 2014*). However, as previously pointed out by Bräm (*Bräm, 1965*), NMS 124 (the third syntype) clearly belongs to a different species and is now referred to *Thalassemys hugii Rütimeyer, 1873*, (*Anquetin, Püntener & Billon-Bruyat, 2014*). In order to avoid potential future issues with the taxonomic status of *P. langii*, NMS 123, the main specimen described by *Rütimeyer (1873)*, is herein designated as the lectotype of this species.

Institutional abbreviations
NMS   Naturmuseum Solothurn, Switzerland

ACKNOWLEDGEMENTS

I would like to thank Prof. Alain Dubois (MNHN, Paris) for signaling this issue with our 2014 paper. Richard Pyle (ZooBank) and Pete Binfield (PeerJ) provided very helpful advice for this work.

Funding

The PAL A16 team (Section d'archéologie et paléontologie) is funded by the Federal Roads Office (FEDRO, 95%) and the Republic and Canton of Jura (RCJU, 5%). The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Grant Disclosures

The following grant information was disclosed by the author:
Federal Roads Office.
Republic and Canton of Jura.

Competing Interests

Jérémy Anquetin is an Academic Editor for PeerJ.

Author Contributions

- Jérémy Anquetin analyzed the data, wrote the paper, reviewed drafts of the paper.

REFERENCES

Anquetin J, Deschamps S, Claude J. 2014. The rediscovery and redescription of the holotype of the Late Jurassic turtle *Plesiochelys etalloni*. *PeerJ* **2**:e258 DOI 10.7717/peerj.258.

Anquetin J, Püntener C, Billon-Bruyat J-P. 2014. A taxonomic review of the Late Jurassic eucryptodiran turtles from the Jura Mountains (Switzerland and France). *PeerJ* **2**:e369 DOI 10.7717/peerj.369.

Batsch AJGC. 1788. *Versuch einer Anleitung, zur Kenntniß und Geschichte der Thiere und Mineralien.* Jena: Akademische Buchhandlung.

Baur G. 1888. Osteologische Notizen über Reptilien (Fortsetzung II). *Zoologischer Anzeiger* **11**:417–424.

Bräm H. 1965. Die Schildkröten aus dem oberen Jura (Malm) der Gegend von Solothurn. *Schweizerische Paläontologische Abhandlungen* **83**:1–190.

Gaffney ES. 1975. A phylogeny and classification of the higher categories of turtles. *Bulletin of the American Museum of Natural History* **155**:387–436.

Pictet F-J, Humbert A. 1857. Description d'une émyde nouvelle (*Emys Etalloni*) du terrain jurassique supérieur des environs de St-Claude. In: Pictet F-J, ed. *Matériaux pour la paléontologie suisse, Première série.* Genève: J. Kessmann, 1–10.

Rütimeyer L. 1873. Die fossilen Schildkröten von Solothurn und der übrigen Juraformation. *Neue Denkschrift der Allgemeinen Schweizerischen Naturforschenden Gesellschaft* **25**:1–185.