



# Datziinae as a new subfamily name for the unavailable name Protopsychoinae Stebner et al., 2015, (Diptera: Psychodidae)

Frauke Stebner<sup>1</sup>, Mónica M. Solórzano Kraemer<sup>1,2</sup>, Sergio Ibáñez-Bernal<sup>3</sup> and Rüdiger Wagner<sup>4</sup>

<sup>1</sup> Steinmann-Institut, Abteilung Paläontologie, Bonn, Germany

<sup>2</sup> Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt am Main, Germany

<sup>3</sup> Red Ambiente y Sustentabilidad, Instituto de Ecología, A.C., Xalapa, Veracruz, Mexico

<sup>4</sup> FB 10 Naturwissenschaften, Institut für Biologie, Kassel, Germany

## ABSTRACT

In a recent paper a new subfamily of Psychodidae was inadequately named Protopsychoinae. This nomenclatural act cannot be considered as a valid name under ICZN regulations because the subfamily name is not based on the type genus *Datzia Stebner et al., 2015*, and furthermore the fossil genus *Protopsychoa Azar et al., 1999* was originally described under the subfamily Psychodinae. Therefore, the new family-group name Datziinae is herein proposed.

**Subjects** Entomology, Paleontology, Taxonomy

**Keywords** Protopsychoinae, *Datzia*, Nomenclature, Subfamily, Psychodidae

## INTRODUCTION

*Stebner et al. (2015)* recently described a new subfamily of fossil Psychodidae. However, the establishment of a new subfamily Protopsychoinae *Stebner et al., 2015* with the type genus being *Datzia* is invalid under ICZN rules, article 29.1, because the subfamily name must be formed using the stem of the type genus name. Furthermore, *Protopsychoa Azar et al., 1999* is a valid genus described within the subfamily Psychodinae which would make Protopsychoinae (if validly established with *Protopsychoa* as the type genus) a junior synonym of Psychodinae (ICZN, article 23). The name Protopsychoinae is unavailable, and instead the new subfamily name Datziinae is established, based on *Datzia Stebner et al., 2015* as the type genus. Accordingly, the new subfamily name is herein proposed to include the type genus *Datzia* and the genus *Mandalayia Stebner et al., 2015*.

## 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 new names contained in the electronic version are effectively published under that Code from the electronic edition alone. This published work and the nomenclatural acts it contains have been registered in ZooBank, the online registration system for the ICZN. The ZooBank LSIDs (Life Science Identifiers) can be

Submitted 29 October 2015  
Accepted 2 November 2015  
Published 24 November 2015

Corresponding author

Frauke Stebner,  
frauke.stebner@uni-bonn.de

Academic editor  
Kenneth De Baets

Additional Information and  
Declarations can be found on  
page 2

DOI 10.7717/peerj.1423

© Copyright  
2015 Stebner et al.

Distributed under  
Creative Commons CC-BY 4.0

**OPEN ACCESS**

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:67C1C754-CFB9-45DE-AD72-62F11071AD43. The online version of this work is archived and available from the following digital repositories: PeerJ, PubMed Central and CLOCKSS.

## SYSTEMATIC PALAEOLOGY

Order: Diptera Linnaeus, 1758

Family: Psychodidae Newman, 1834

Datziinae new subfamily (replacing Protopsychoinae *Stebner et al., 2015*, unavailable under the ICZN Code)

urn:lsid:zoobank.org:act:2C47D449-A108-401B-829E-A67DD15FB56F.

*Type-genus: Datzia Stebner et al., 2015*

urn:lsid:zoobank.org:act:A8D8B8AE-229E-469F-A8F8-CA496B45FFA0.

*Type-species: Datzia bispina*

urn:lsid:zoobank.org:act:B094011C-331E-487E-8700-B4FB53EEB95C.

*Material:* Holotype male SMF Be 2379 and 7 male Paratypes; SMF Be 2376 Paratypes 6 males. Deposited at the Senckenberg Forschungsinstitut und Naturmuseum, Frankfurt, Germany.

*Type-locality:* Hukawng Valley of the northern state of Kachin.

*Stratigraphic horizon:*  $98.79 \pm 0.62$  million years, Upper Cretaceous (earliest Cenomanian) (*Shi et al., 2012*).

*Diagnosis:* unchanged (see *Stebner et al., 2015*, p. 6)

## ACKNOWLEDGEMENTS

The authors would like to thank Christian Kammerer (Museum für Naturkunde, Berlin) and Matthew E. Clapham (University of California, Santa Cruz) for pointing out the nomenclatural inconsistency in our previous paper, Richard Pyle (ZooBank) for reviewing the manuscript and providing very helpful advice for this work, and Jacqueline Thai (Head of Publishing Operations, PeerJ) for her constant efforts.

## ADDITIONAL INFORMATION AND DECLARATIONS

### Funding

This research was possible with funding No. RU665/10-1 from the German Research Foundation (DFG), and a postdoctoral fellowship to Mónica M. Solórzano Kraemer, No. SO894/3-1 from the German Research Foundation (DFG). Sergio Ibáñez-Bernal was supported by the Project INECOL-10816. 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 authors:  
German Research Foundation: RU665/10-1, No. SO894/3-1.  
INECOL-10816.

### Competing Interests

The authors declare there are no competing interests. Mónica M Solórzano Kraemer is an employee of the Senckenberg Forschungsinstitut und Naturmuseum, Sektion Mikropaläontologie I-Bernstein.

### Author Contributions

- Frauke Stebner, Mónica M. Solórzano Kraemer, Sergio Ibáñez-Bernal and Rüdiger Wagner conceived and designed the experiments, performed the experiments, analyzed the data, contributed reagents/materials/analysis tools, wrote the paper, reviewed drafts of the paper.

### New Species Registration

The following information was supplied regarding the registration of a newly described species:

1. This published work and the nomenclatural acts it contains have been registered in ZooBank.

The LSID for this publication is: urn:lsid:zoobank.org:pub:67C1C754-CFB9-45DE-AD72-62F11071AD43.

2. New subfamily Datzinae: urn:lsid:zoobank.org:act:2C47D449-A108-401B-829E-A67DD15FB56F

## REFERENCES

- Azar D, Nel A, Solignac M, Paicheler J-C, Bouchet F. 1999. New genera and species of phlebotomid and psychodid flies from the Lower Cretaceous amber of Lebanon (Insecta: Diptera: Phlebotomidae, Psychodidae). *Palaeontology* 42:1101–1136  
[DOI 10.1111/1475-4983.00112](https://doi.org/10.1111/1475-4983.00112).
- Shi G, Grimaldi DA, Harlow GE, Wang J, Wang J, Yang M, Lei W, Li Q, Li X. 2012. Age constraint on Burmese amber based on U-Pb dating of zircons. *Cretaceous Research* 37:155–163  
[DOI 10.1016/j.cretres.2012.03.014](https://doi.org/10.1016/j.cretres.2012.03.014).
- Stebner F, Solórzano Kraemer MM, Ibáñez-Bernal S, Wagner R. 2015. Moth flies and sand flies (Diptera: Psychodidae) in Cretaceous Burmese amber. *PeerJ* 3:e1254 [DOI 10.7717/peerj.1254](https://doi.org/10.7717/peerj.1254).