



Happy birthday Willi Hennig!—*Hyptia hennigi* sp. nov. (Hymenoptera: Evaniidae), a fossil ensign wasp from Eocene Baltic amber

JOHN T. JENNINGS¹, LARS KROGMANN² & PRIYA¹

¹Australian Centre for Evolutionary Biology and Biodiversity, and School of Earth and Environmental Sciences, The University of Adelaide, SA 5005, Australia. E-mail: john.jennings@adelaide.edu.au

²State Museum of Natural History Stuttgart, Entomology, Germany. E-mail: lars.krogmann@smns-bw.de

Abstract

The ensign wasp genus *Hyptia* Illiger was previously known from 52 extant New World species and one fossil species from Lower Miocene to Upper Oligocene Mexican amber. *Hyptia hennigi* sp. nov., from Eocene Baltic amber, is the oldest known species and the first member of the genus from the Old World.

Key words: Eocene, new species, Old World, distribution

Introduction

Ensign or hatchet wasps (family Evaniidae) are solitary predators on cockroach eggs in oothecae. They are easily diagnosed by a uniquely ensign- or hatchet-shaped metasoma with a tubular petiole and a shortened, laterally compressed gaster. The fauna comprises about 650 species in 22 extant and 12 fossil genera (Deans 2005; Deans *et al.* 2013).

About 26 evaniid species have been described from Mesozoic (Early to Late Cretaceous) or Tertiary ambers (Eocene to Miocene) and seven species from non-amber deposits, mostly early to late Cretaceous (see Table 1 in Jennings *et al.* 2012 for a summary; Pérez-de la Fuente *et al.* 2012; Jennings *et al.* 2013). *Procretevania pristina* Zhang & Zhang from the Upper Jurassic Yixian formation of Beipiao, Western Liaoning, is the oldest fossil evaniid to date (Zhang and Zhang 2000).

The genus *Hyptia* Illiger is known from 52 extant species (Deans 2005; Deans *et al.* 2013). To date, only one fossil species, *Hyptia deansi* Jennings, Krogmann & Mew has been described—from Lower Miocene to Upper Oligocene Mexican amber, Simojovel, Chiapas, Mexico (Jennings *et al.* 2012).

Four evaniid species are known from Eocene Baltic amber: *Parevania brevis* Brues, *P. producta* Brues and *P. remanea* Brues (Brues 1933) and *Evaniella eocenica* Sawoniewicz and Kupryjanowicz (Sawoniewicz & Kupryjanowicz 2003). Herein we describe the first species of *Hyptia* from Baltic amber.

Material and methods

The amber specimen, which had previously been polished, was immersed in 50% glycerol and images taken using a Visionary Digital BK plus imaging system with a Canon EOS 7D 18 megapixel camera. Images were produced using Zerene Stacker, Zerene Systems LLC, software and cropped and resized in Photoshop CS6.

Anatomical terminology follows the Hymenoptera Anatomy Consortium (<http://glossary.hymao.org>); wing venation terminology follows Deans & Huben (2003).

Acknowledgements

We thank Günter Bechly (SMNS) for the loan of the specimen. This work was partly funded by a Summer Scholarship (2012/13) awarded to Priya by the School of Earth and Environmental Sciences, The University of Adelaide.

References

- Brues, C.T. (1933) The parasitic Hymenoptera of the Baltic amber, Part 1. *Bernstein Forschungen*, 3, 4–178.
- Deans, A.R. (2005) Annotated catalog of the world's ensign wasp species (Hymenoptera: Evaniidae). *Contributions of the American Entomological Institute*, 34, 1–164.
- Deans, A.R. & Huben, M. (2003) Annotated key to the ensign wasp (Hymenoptera: Evaniidae) genera of the world, with descriptions of three new genera. *Proceedings of the Entomological Society of Washington*, 105, 859–875.
- Deans, A.R., Yoder, M.J. & Dole, K. (2013) *Evanioides Online* - catalog of information about evanioid wasps (Hymenoptera). Available from: <http://evanioides.info> (Accessed 1 Feb. 2013)
- Illiger, C. (1807) *Fauna Etrusca sistens Insecta quae in provinciis Florentina et Pisana praesertim collegit Petrus Rossius*, Tomus Secundus. C. G. Fleckeisen, Helmstadii, 511 pp. [in Latin]
- Jennings, J.T., Krogmann, L. & Mew, S.L. (2012) *Hyptia deansi* sp. nov., the first record of Evaniidae (Hymenoptera) from Mexican amber. *Zootaxa*, 3349, 63–68.
- Jennings, J.T., Krogmann, L. & Mew, S.L. (2013) *Cretevania bechlyi* sp. nov., from Cretaceous Burmese amber (Hymenoptera: Evaniidae). *Zootaxa*, 3609 (1), 91–95.
<http://dx.doi.org/10.11646/zootaxa.3609.1.7>
- Latreille, P.A. (1802) *Histoire Naturelle, Générale et Particulière des Crustacés et des Insectes. Ouvrage faisant suite à l'histoire naturelle générale et particulière, composée par Leclerc de Buffon, et rédigée par C.S. Sonnini, membre de plusieurs sociétés savantes*. Tome troisième. Dufart, Paris, France, xii + 467 pp.
- Peréz-de la Fuente, R., Peñalver, E. & Ortega-Blanco, J. (2012) A new species of the diverse Cretaceous genus *Cretevania* Rasnitsyn, 1975 (Hymenoptera: Evaniidae) from Spanish amber. *Zootaxa*, 3514, 70–78.
- Sawoniewicz, J. & Kupryjanowicz, J. (2003) *Evaniella eocenica* sp. nov. from the Baltic amber (Hymenoptera: Evaniidae). *Acta Zoologica Cracoviensia*, 46 (suppl.), 267–270.
- Zhang, H. & Zhang, J.-F. (2000) A new genus and two new species of Hymenoptera (Insecta) from the Upper Jurassic Yixian formation of Beipiao, Western Liaoning. *Acta Micropalaeontologica Sinica*, 17, 286–290 + plate I.