

# Blattaria assemblage from J/K sediments of Chernovskie Kopi in Transbaikalian Russia

Peter Barna

Geological Institute, Slovak Academy of Sciences; Dúbravská cesta 9, P.O. BOX 106, 840 05 Bratislava 45, Slovakia;  
e-mail: peter.barna@savba.sk

© 2014 Authors. This is an open access publication, which can be used, distributed and reproduced in any medium according to the Creative Commons CC-BY 4.0 License requiring that the original work has been properly cited.

The J/K fossil site Chernovskie Kopi in Transbaikalian Siberia (Russia) yielded insect fossils of 15 orders (Vassilenko 2005), descendants of the order Blattaria – the earliest termites (Vršanský & Aristov 2014), and insect trace-fossils (Sukatcheva & Vassilenko, 2011). Recently described cockroach assemblage (Barna 2014) contains five species: *Blattula* sp. (Blattulidae), *Rhipidoblattina* sp. (Caloblattinidae), *Archimesoblatta* sp. (Mesoblattinidae), *Mongolblatta* sp. (Mesoblattinidae), *Rhipidoblatta* sp. (Caloblattinidae) and one undescribed species of the family Liberiblattinidae Vršanský, 2002. Most of 41 specimens were photographed and drawn. The cockroach fossils, preserved as imprints in fine-grained, red-coloured argylites, are represented almost exclusively by imprints of forewings (only one hindwing and one pronotum was found) suggesting a significant transport prior to deposition. The composition of this cockroach assemblage is more similar to Early Jurassic assemblages from Australia (Martin 2010), and Germany and England (Vršanský & Ansorge 2007), than to Middle and Late Jurassic assemblages (Vishniakova 1968). Venation deformities recognised on 22.5% of studied cockroach wings, support the claims of mass mutations occurrence near

the J/K boundary (Vršanský 2005) and along with low diversity of the assemblage point to a destabilized ecosystem.

## REFERENCES

- Barna P., 2014. Low diversity cockroach assemblage from Chernovskie Kopi in Russia confirms wing deformities in insects at the J/K boundary. *Biologia*, 69/5, 651–675.
- Martin S.K., 2010. Early Jurassic cockroaches (Blattodea) from the Mintaja insect locality, Western Australia. *Alavesia*, 3, 55–72.
- Sukatsheva I.D. & Vassilenko D.I., 2011. Caddisflies from Chernovskie Kopi (Jurassic/Cretaceous of Transbaikalia). *Zoosymposia*, 3, 434–438.
- Vassilenko D.V., 2005. Damages on Mesozoic Plants from the Transbaikalian Locality Chernovskie Kopi. *Paleontological Journal*, 39, 6, 54–59.
- Vishniakova V.N., 1968. Mesozoic cockroaches with an external ovipositors and peculiarities of their reproduction (Blattodea). 55–89. [in:] Rohdendorf B.B. (ed.), *Jurassic Insects of Karatau*, Nauka, Moscow, 1–252 [in Russian].
- Vršanský P., 2005. Mass mutations of insects at the Jurassic/Cretaceous boundary? *Geologica Carpathica*, 56, 6, 473–481.
- Vršanský P. & Ansorge J., 2007. Lower Jurassic cockroaches (Insecta: Blattaria) from Germany and England. *African Invertebrates*, 48, 103–126.
- Vršanský P. & Aristov D., 2014. Termites (Isoptera) from the Jurassic/Cretaceous boundary: Evidence for the longevity of their earliest genera. *European Journal of Entomology*, 111, 1, 137–141.