

IGCP 469 – Late Variscan terrestrial biotas and palaeoenvironments

This international project is concerned with biotic and environmental change across the Westphalian/Stephanian transition during the Pennsylvanian. Many of the changes are linked to the Variscan (Hercynian) Orogeny, which had an impact on the coal-forming swamp vegetation and associated fauna.

Mid-late Upper Carboniferous insect faunas are less well documented than the plants but include classical sites and collecting areas in Euramerica (USA, UK, France, Germany, Czech Republic and Russia). Other areas are less well studied (Canada, Poland) or relatively unknown (Bulgaria, the Ukraine) and with potential beyond the orogen (China). The insects include diverse palaeopterans and polyneopterans, some with well-developed colour patterns (Jarzembowski 2005). They are associated with other invertebrates and some vertebrates, and preserved in sideritic nodules or roof shales. The latter have yielded a sizeable assemblage in the late Asturian ('Westphalian D') of Writhlington (Somerset Coalfield) in the Variscan Foreland of southern England (Jarzembowski 2004). Cockroachoids (Blattodea) are sufficiently abundant (especially around the transition) to assist with biostratigraphy (Jarzembowski & Schneider, in press). New work on insects is in progress in the USA (Cary Easterday; <http://groups.yahoo.com/group/paleogeearthropoda/>), the UK (Prokop *et al.* 2006) and the Czech Republic (Prokop & Nel 2004, 2007). Site geoconservation is also needed especially in former coal-mining areas, which are liable to redevelopment with attendant loss of geology. An old colliery tip ('sterile dump') has recently yielded the first Pennsylvanian insect from Romania showing the potential for more collecting (Jarzembowski, in press).

Project meetings are held in participating countries and future ones include Birmingham (22–26 April 2007). For further information, consult the Project newsletter at <http://www.palaeobotany.org/modules.php?name=iop&sec=meetings&page=40> or <http://www.nmgw.ac.uk/www.php/301/>.

REFERENCES

- JARZEMBOWSKI, E.A. 2004. Atlas of animals from the late Westphalian of Writhlington, United Kingdom. *Geologica Balcanica* **34** (1–2): 47–50, pls 1, 2.
- 2005. Colour and behaviour in Late Carboniferous terrestrial arthropods. *Zeitschrift der Deutschen Gesellschaft fuer Geowissenschaften* **156** (3): 381–386.
- In press. The oldest insect from Romania: a new Carboniferous blattodean. *Studia Geologica Polonica*.
- JARZEMBOWSKI, E.A. & SCHNEIDER, J.W. In press. The stratigraphical potential of blattodean insects from the late Carboniferous of southern Britain. *Geological Magazine* **144** (3).
- PROKOP, J. & NEL, A. 2004. A new genus and species of Homiopteridae from the Upper Carboniferous of the Intra-Sudetic Basin, Czech Republic (Insecta: Palaeodictyoptera). *European Journal of Entomology* **101** (4): 583–589.
- 2007. An enigmatic Palaeozoic stem-group: Paoliida, designation of new taxa from the Upper Carboniferous of the Czech Republic (Insecta: Paoliidae, Katerinkidae fam. n.). *African Invertebrates* **48** (1): 77–86.
- PROKOP, J., SMITH, R., JARZEMBOWSKI, E.A. & NEL, A. 2006. New homiopterids from the Late Carboniferous of England (Insecta: Palaeodictyoptera). *Comptes rendus Palevol* **5** (7): 867–873.



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