

Proceedings of the

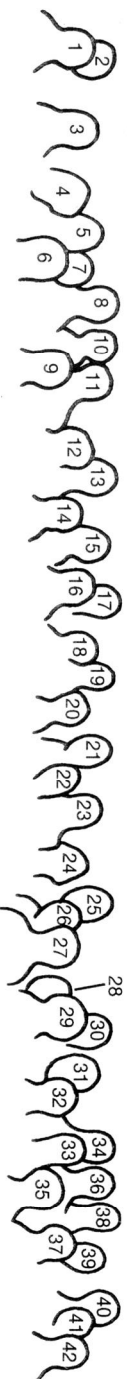
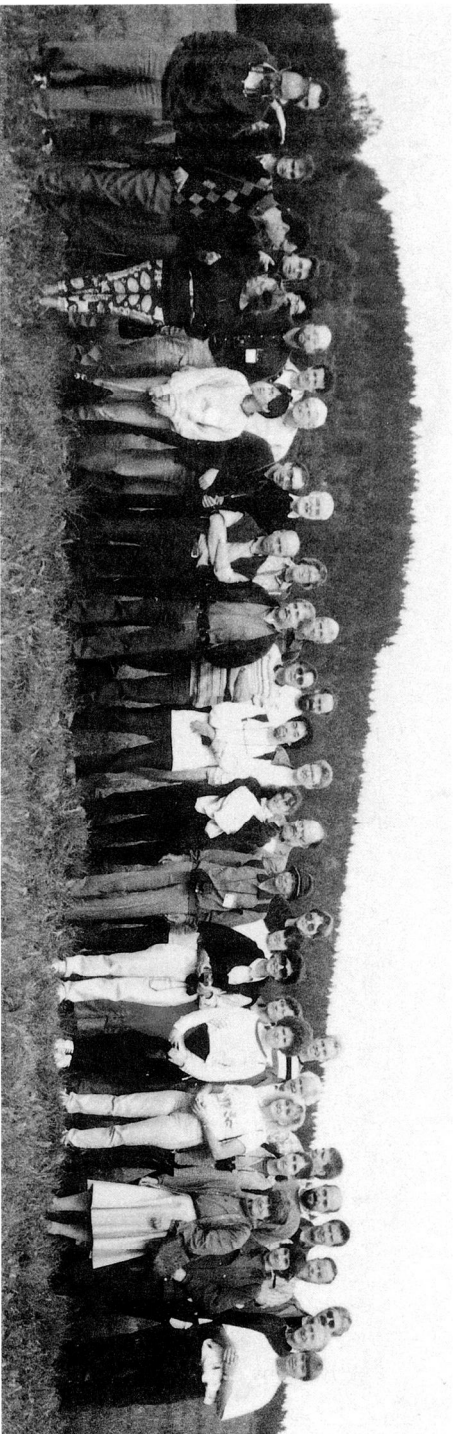
**SECOND EUROPEAN WORKSHOP
OF INVERTEBRATE
ECOPHYSIOLOGY**

organised by M. Hodková
at České Budějovice, Czech Republic

10–15 September, 1995

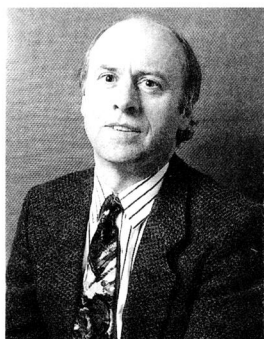
Editors: J. Bale, W. Block & L. Sømme

Published by the Institute of Entomology, Č. Budějovice, September 30, 1996

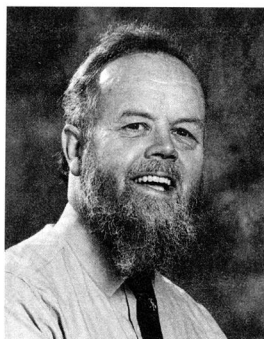


EXCURSION TO ŠUMAVA MOUNTAINS

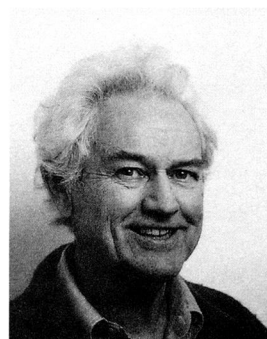
1 – Makio Takeda, 2 – Vladimír Košťál, 3 – Martin Konvička, 4 – Dimitris S. Koveos, 5 – Frédéric Menu, 6 – Josselyne Bouletreau-Merle, 7 – Tetsuo Harada, 8 – Richard E. Lee Jr., 9 – Keiji Nakamura, 10 – Frédéric Fleury, 11 – Daniel Sillans, 12 – Alexei V. Uvarov, 13 – Dietmar Zinkler, 14 – Jeffrey S. Bale, 15 – Ursula Zettel, 16 – Karl-Eric Zachariassen, 17 – Jürg Zettel, 18 – Philippe Vernon, 19 – Peter Convey, 20 – Kazuhiro Tanaka, 21 – Tatiana Rossolino, 22 – Magdalena Hodeková, 23 – Ivo Hodek, 24 – Sinzo Masaki, 25 – ?, 26 – Georgiana L. Brooks, 27 – Gordana Grubor-Lajšić, 28 – Tatiana A. Volkovich, 29 – Catherine M. Todd, 30 – Hans Ramløv, 31 – Lauritz Sømme, 32 – Kathleen L. Horwath, 33 – Daphna Lavy, 34 – Martin Holmstrup, 35 – Aida Ch. Saulich, 36 – Michael R. Worland, 37 – Maria Kazimírová, 38 – Josef Stary, 39 – William Block, 40 – Herman A. Verhoef, 41 – John B. Whittaker, 42 – Steven L. Chown.



J. Bale



W. Block



L. Sømme

SECOND EUROPEAN WORKSHOP OF INVERTEBRATE ECOPHYSIOLOGY, ČESKÉ BUDĚJOVICE, CZECH REPUBLIC, 10–15 SEPTEMBER 1995

The papers published in this volume of the *European Journal of Entomology* were presented at the Second European Workshop of Invertebrate Ecophysiology. The meeting was organised by Dr. Magdalena Hodková through the Institute of Entomology of the Czech Academy of Sciences and the Faculty of Biological Sciences in the University of South Bohemia. The workshop attracted about 50 participants, including scientists from Japan, USA, South Africa and Russia, as well as most European countries.

The meeting was based around six main themes: Latitudinal and altitudinal adaptations, Resistance to cold and drought, Cold hardiness, respiratory metabolism in relation to environment, Diapause and life history strategies, and Temperature effects. Each topic was introduced by a keynote lecture: Geographic variation of life cycle in crickets (S. Masaki, Hiroasaki University, Japan); Cold or drought – the lesser of two evils for terrestrial arthropods? (W. Block, Cambridge, UK); Insect cold hardiness: a matter of life or death (J.S. Bale, Birmingham, UK); The adaptive significance of respiratory metabolism in arthropods (S.L. Chown, Pretoria, South Africa). Invited review lectures were also presented on Anhydrobiosis and cold hardiness in tardigrades (L. Sømme, Oslo, Norway); Regulation of supercooling and ice nucleation in insects (R.E. Lee Jr., Oxford, Ohio, USA); The multiple stressor approach in ecophysiology (H.A. Verhoef, Amsterdam, The Netherlands) and The end of diapause – a point of view (I. Hodek, České Budějovice, Czech Republic).

The main impressions to emerge from the workshop, reflected in these published papers, were the increasingly dominant role of cold resistance studies (categories of cold hardiness, overwintering survival, control of ice nucleation, antifreeze proteins), the importance of water management and the need for a more comprehensive approach to the study of respiratory metabolism (including CO₂) in arthropods, the evolution and ecological significance of diapause, and the possible future impact of components of global climate change.

All the papers published in this volume have been subject to the normal refereeing procedure of the journal. The guest editors would like to thank the editorial office of the *European Journal of Entomology* for their assistance in the preparation of this issue. The next meeting in the sequence of European Workshops of Invertebrate Ecophysiology will be in Birmingham (UK) in September 1998.

Jeffrey Bale (School of Biological Sciences, University of Birmingham, Birmingham B15 2TT, UK)

William Block (British Antarctic Survey, Natural Environment Research Council, Cambridge CB3 0ET, UK)

Lauritz Sømme (Department of Biology, University of Oslo, N-0316 Oslo, Norway)