

SPECIAL ISSUE

EVOLUTION OF SOCIAL BEHAVIOUR

GUEST EDITORS

Joel D. Levine, Daniel J. C. Kronauer and Michael H. Dickinson



Cover: Division of labour is a fundamental aspect of insect societies and other social systems. In colonies of the clonal raider ant *Ooceraea biroi*, for example, some worker ants form a tight nest cluster where the larvae are nursed, while others leave the nest to explore and forage for food. Each ant in this picture is tagged with two colour dots to facilitate individual behavioural observations. This Special Issue integrates recent research on the ultimate and proximate underpinnings of social behaviour across a wide range of biological systems (Kronauer and Levine, pp. 4–5). Photo: Daniel Kronauer.

INSIDE JEB

- 1 Social evolution: from molecules and superorganisms to flocks, shoals and parenting

EDITORIAL

- 4 The ultimate and proximate underpinnings of social behavior
Kronauer, D. J. C. and Levine, J. D.

REVIEWS

- 6 Genetic conflicts: the usual suspects and beyond
McLaughlin, R. N., Jr and Malik, H. S.
- 18 The ecology and evolution of social behavior in microbes
Tarnita, C. E.
- 25 Machine vision methods for analyzing social interactions
Robie, A. A., Seagraves, K. M., Egnor, S. E. R. and Branson, K.
- 35 The neurogenetics of group behavior in *Drosophila melanogaster*
Ramdya, P., Schneider, J. and Levine, J. D.
- 42 Phylogeny, environment and sexual communication across the *Drosophila* genus
Jezovit, J. A., Levine, J. D. and Schneider, J.

- 53 Caste development and evolution in ants: it's all about size
Tribble, W. and Kronauer, D. J. C.
- 63 Evolution of the asexual queen succession system and its underlying mechanisms in termites
Matsuura, K.
- 73 Individual versus collective cognition in social insects
Feinerman, O. and Korman, A.
- 83 When social behaviour is moulded in clay: on growth and form of social insect nests
Perna, A. and Theraulaz, G.
- 92 Modification of feeding circuits in the evolution of social behavior
Fischer, E. K. and O'Connell, L. A.
- 103 Cognitive skills and the evolution of social systems
Fernald, R. D.
- 114 Intergenerational transmission of sociality: the role of parents in shaping social behavior in monogamous and non-monogamous species
Perkeybile, A. M. and Bales, K. L.
- 124 How social learning adds up to a culture: from birdsong to human public opinion
Tchernichovski, O., Feher, O., Fimiarez, D. and Conley, D.