

CONTENTS

Preface	vii
1. Chemical ecology: a multidisciplinary approach <i>W. Takken and M. Dicke (The Netherlands)</i>	1
2. Chemical communication: five major challenges in the postgenomics age <i>D.J. Penn (Austria)</i>	9
3. Plant-insect interactions in the era of consolidation in biological sciences: <i>Nicotiana attenuata</i> as an ecological expression system <i>A. Kessler (USA)</i>	19
4. The effect of host-root-derived chemical signals on the germination of parasitic plants <i>R. Matúšová and H.J. Bouwmeester (The Netherlands)</i>	39
5. Chemical signalling between plants: mechanistic similarities between phytotoxic allelopathy and host recognition by parasitic plants <i>A. Tomilov, N. Tomilova, D.H. Shin, D. Jamison, M. Torres, R. Reagan, H. McGraw, T. Horning, R. Truong, A.J. Nava, A. Nava and J.I. Yoder (USA)</i>	55
6. The chemosensory system of <i>Caenorhabditis elegans</i> and other nematodes <i>D.M. O'Halloran, D.A. Fitzpatrick and A.M. Burnell (Ireland)</i>	71
7. Variation in learning of herbivory-induced plant odours by parasitic wasps: from brain to behaviour <i>H.M. Smid (The Netherlands)</i>	89
8. Visualizing a fly's nose: genetic and physiological techniques for studying odour coding in <i>Drosophila</i> <i>M. de Bruyne (Australia)</i>	105

9. **Chemical communication between roots and shoots: towards an integration of aboveground and belowground induced responses in plants** 127
N.M. van Dam and T.M. Bezemer (The Netherlands)

10. **Food-web interactions in lakes: what is the impact of chemical information conveyance?** 145
E. van Donk (The Netherlands)

11. **Plant volatiles yielding new ways to exploit plant defence** 161
J.A. Pickett (UK), T.J.A. Bruce (UK), K. Chamberlain (UK), A. Hassanali (Kenya), Z.R. Khan (Kenya), M.C. Matthes (UK), J.A. Napier (UK), L.E. Smart (UK), L.J. Wadhams (UK) and C.M. Woodcock (UK)

12. **Chemical ecology from genes to communities: integrating 'omics' with community ecology** 175
M. Dicke (The Netherlands)