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3.4 Sex pheromones in crustaceans-indicators of female receptivity and triggers of mate guarding3.5 Pheromones mediating dominance interactions; 3.6 Pheromones mediating spawning without courtship-Arenicola marina; 3.7 Pheromones mediating broadcast spawning; 3.8 Future perspectives and applications of pheromone research; References; 4 Chemical signals and kin biased behaviour Gabriele Gerlach and Cornelia Hinz; 4.1 Living with relatives; 4.2 Chemical components involved in kin recognition; 4.3 Concluding remarks; References
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9.3 The ecology of alarm substances

Sommario/riassunto

In recent years it has become increasingly clear that chemical interactions play a fundamental role in aquatic habitats and have far-reaching evolutionary and ecological consequences. A plethora of studies have shown that aquatic organisms from most taxa and functional groups respond to minute concentrations of chemical substances released by other organisms. However, our knowledge of this ""chemical network"" is still negligible. Chemical interactions can be divided into two largersub-areas based on the function of the chemical substance. First, there are interactions where chemical substance