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structures of insect pheromones; Pheromones can be complex blends; Amazing similarity and subtle differences; CURIOUS FACTS ABOUT PHEROMONES ACROSS SPECIES; Puzzling coincidences; Deceptive messages from plants; Mating and death; PHEROMONES AS A CHEMICAL LANGUAGE; The complex communication in insect colonies; The ant colony as a superorganism; Chemical communication in social insects

A chemical citizenship Not solitary, yet not quite social; LEARNING FOREIGN LANGUAGES; Smelling the prey; OF MEN AND MOSQUITOES; Mosquitoes need blood; Repellents to replace insecticides; Messages of danger or confusion?; The search for longer lasting repellents; CONCLUSION; 6: Mammalian Pheromones: Smelling Ranks and Kinship; SEX PHEROMONES; Mice and rats smell nutty; Repulsive to humans, but an aphrodisiac for pigs; The captivating scent of musk; Elephants . . . and insects; NOT SEX ALONE; Scent wars among mice; Smell and relax; An addictive drive to milk; PHEROMONES IN PRIMATES  
Part 3: Proteins and Smells 7: The Biochemistry of Olfaction: Odorants Meet the Proteins; STEPS IN ODOUR PERCEPTION; THE FIRST ATTEMPTS OF BIOCHEMISTRY; A QUEST FOR OLFACTORY RECEPTORS; AN UNEXPECTED DISCOVERY; 8: Odorant-Binding Proteins: A Family of Versatile Molecules; THE BOVINE ODORANT-BINDING PROTEIN; First step: purification; Competition stimulates research; Second step: amino acid sequence; Third step: three-dimensional structure; The shapes of proteins; Solving the structure of a protein; The structure of the first OBP; Competition again; ODORANT-BINDING PROTEINS OF INSECTS  
CHEMOSENSORY PROTEINS

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### Sommario/riassunto

Smell is arguably the most evocative of senses, linked to memories and associations. For most animals it is vital for survival. For us, it enriches our experience of the world, our pleasure in food and drink, and affects all human interaction. Paolo Pelosi describes how scientists are finally unravelling the science of smell.

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