What are fiddler crabs? Fiddler crabs belong to the genus *Uca*. They are members of the ocypodid family of brachyuran crabs, the most recent marine animals to have invaded land. They spend the first part of their life as aquatic plankton and only settle in the intertidal zone after their last larval moult. Adults live in burrows on intertidal mud- and sand-flats within dense, mixed-age, mixed-sex and mixed-species colonies (Figure 1). Each adult defends his or her own burrow and a small area around it. They are active on the surface during low tide, feeding on algae, bacteria and detritus in the topsoil. It is thought that fiddler crabs can live for up to seven years and adults of the largest species can reach a body size of about 5 cm. The crabs grow by moulting which, under favourable conditions, they do about every eight weeks.

What decisions do fiddler crabs have to make? Like most social animals living in dynamic environments, fiddler crabs constantly have to make decisions. They need to feed, maintain their burrows, establish and maintain neighbourhood relations, avoid predators and pursue mating opportunities. While we do not know how they make these crucial decisions, we do know that they are expert survivors with complex and flexible responses to the many competing interests they face. We know that they are exquisitely sensitive to bird-like objects flying overhead and to crab-like objects approaching their burrow. We also know that they care about their neighbourhood — to the extent that they come to the aid of weaker neighbours trying to fight off wandering burrow snatchers. They are capable of

What is special about them? Fiddler crabs exhibit many adaptations to life on land and — for an invertebrate — show surprising behavioural complexity and flexibility; they are excessive communicators that can set the mudflat in motion with their mass-waving displays; their stalked eyes are highly specialized for vision in a flat world; and their miniature societies are exceptionally accessible for detailed observation and analysis.

Figure 1. View across a *Uca vomeris* colony at Bowling Green Bay, Queensland, Australia. Inset shows a male *Uca polita* (left) and a female *Uca vomeris* (right).
making complex, multi-step
decisions, not only when avoiding
predators, but also when
choosing mat, not's-step