



Effects of social environment and personality on territorial behaviour of male Siamese fighting fish (*Betta splendens*) in an artificial communication network

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O18-2

be killed: predatory behaviour of an araneophagic bug, *Stenolemus bituberus* (Heteroptera, Reduviidae)

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ding araneophagic predators hunt a dangerous prey, and thus risk becoming the hunted in the hunter. As a result, these predators require considerable skill when hunting. An araneophagic assassin bug, *Stenolemus bituberus* (Heteroptera, Reduviidae), is hunt a wide range of spiders by invading their webs. We observed the predatory of *S. bituberus* hunting 5 species of sympatric spider: *Achaearanea* sp. (Theridiidae), *Achaearanea extridulum* (Theridiidae), *Badumna longinqua* (Desidae), *Pholcus phalangioideus* and *Uloboridae* sp., all of which constitute part of the natural prey range of *S. bituberus*. *Stenolemus bituberus* utilises two distinct predatory strategies whilst hunting these) luring, wherein *S. bituberus* manipulates the silk of the spider webs, appearing to resident spider within attacking range; and (2) stalking, in which *S. bituberus* stealthily s and attacks the resident spider. We propose that the luring strategy adopted by s may be a form of vibratory aggressive mimicry, a hypothesis that we are currently ng a combination of comparative and playback experimental techniques.

ORAL CONTRIBUTIONS 19: SOCIAL BEHAVIOUR

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O19-2

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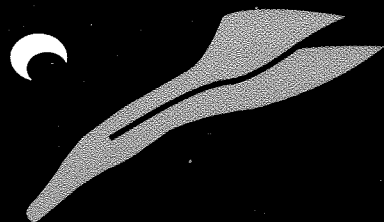
Individuals of the same species, sex, age and size may differ in suites of behaviour traits (personality) in a manner that is consistent across time. In a communication context, the personality of an individual may both affect and be affected by the behaviour of the individuals surrounding it within a network. We investigated the effects of a change of local social environment on two personalities, "persistent" vs. "sporadic" displayer, in Siamese fighting fish. Males visually interacted for one day in a communication network of seven fish in tanks arranged in a hexagonal grid, while we recorded space use and signalling data. We then identified two males with different personalities which were at opposite ends of the grid, exchanged their positions and observed them interacting the following day. "Persistent" displayers were unaffected by the treatment, while "sporadic" displayers increased the time spent in the front part of their tank, near the neighbours. We also investigated the effects of neighbour personality on the focal fish, and of the exchange on the behaviour of neighbours. We discuss the implications for the relationship between the properties of a communication network (e.g. information gathering) and its composition in terms of personality of its members.

O19-4

Effects of individual gender and group sex ratio on social behaviour in the cooperatively breeding cichlid fish *Neolamprologus pulcher*

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Studies of group-living species have concluded that dominance hierarchies within groups can function as queues for the opportunity to reproduce. Most of these studies have paid relatively little attention to the gender composition of groups. In a queuing context, a group's gender composition is of fundamental importance because a single group contains separate male and female queues. To examine the implications of sex-specific queuing, we constructed standardized groups of the cooperatively breeding fish *Neolamprologus pulcher*, varying the sexes of subordinate group members while keeping the number of group members and the size of each constant. Observations of these groups allowed us to identify behavioural differences associated not only with an individual's overall rank within its group, but also with its position within a gender-specific queue. Such differences included effects of gender composition on patterns of space use by subordinates, the frequency of aggression towards same-sex and opposite-sex group members, and the likelihood of parasitic spawning. These patterns demonstrate the importance of considering gender composition in studies of queue-structured groups.



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ABSTRACTS

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