

Sexual conflict in New Zealand seaweed flies (Coelopidae).

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Sexual conflict occurs due to the differing reproductive interests of males and females and there has been a surge of interest in how this can influence the evolution of mating systems. Previous studies on a small number of species of seaweed flies (Coelopidae) from the northern hemisphere have revealed that mating interactions in this family involve pre-mating struggles whereby the female physically resists copulation attempts by males. Australasia has recently been identified as the centre of diversity for members of the family Coelopidae. However, very little work has been done to investigate mating behaviour and sexual conflict in the seaweed flies in this region. There are 7 species of Coelopidae found in New Zealand and its Subantarctic islands, 5 of which are endemic and their behaviour is yet to be studied. Previous comparative work, looking at northern hemisphere species, has identified that females of different species exhibit different strategies to resist males resulting in selection for males with traits to overcome resistance, usually resulting in selection for large male body size. Here I present preliminary results on mating behaviour and sexual conflict in the New Zealand Coeloid *Chaetocoelopa littoralis* and compare these with the behaviours observed in other members of Coelopidae.

