

A record of interference predation during mating in Odonates

Odonates (dragonflies and damselflies) are highly predatory insects that are widely distributed across the world; they typically feed on other smaller insects, and occasionally prey upon other odonates (May 2019). Living in riparian zones provides adult odonates with access to a plentiful food supply, allowing them to feed on the numerous emerging aquatic insects and other terrestrial species (Griffith et al. 1998; Cleary et al. 2025) thus, becoming recipients of cross-boundary dietary subsidies (Kautza & Sullivan 2016). Lakes in particular, offer rich marginal vegetation that supports oviposition and provides a favorable balance between predator presence and resource availability (Kalkman et al. 2008).

During a nature walk on 11 October 2025 at around 1315 h, the authors observed and recorded an ecological phenomenon of predation



Mating pair of *Pseudagrion decorum* in wheel position. © Abhilash.

in odonates at Sindhuvali Lake (12.048° N; 76.693° E), Nanjangud, Mysuru District, Karnataka, India. The place of observation (lake) was surrounded by paddy fields and thick green vegetation. A mating pair of Three-lined Sprite *Pseudagrion decorum* Rambur, 1842 in wheel position was observed in the littoral zone perched on the twigs of aquatic plants. Soon, the pair was attacked by a Ditch Jewel *Brachythemis contaminata* Fabricius, 1793 and started to devour the male which was still mounted

to the female in the tandem position. Priyadarshana (2021) documented *Brachythemis contaminata* feeding on *Pseudagrion rubriceps* and *Ischnura senegalensis*. However, the study did not report any specific instance of a *Brachythemis contaminata* preying on mating pairs of damselfly species.

The observed behaviour can be categorized as intraguild predation, where two species that compete for similar food resources also engage in predation on one another thus

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A mature Ditch Jewel *Brachythemis contaminata* preying on mating pair of Three-lined Sprite damselfly *Pseudagrion decorum*. © Abhilash.

combining elements of both competition and predation. In this case, the Ditch Jewel (a dragonfly) and the Three-lined

Sprite (a damselfly), though both belonging to the order Odonata, interact at different trophic levels, with the larger

dragonfly preying on the smaller damselfly.

Additionally, the event exemplifies opportunistic predation, as the Ditch Jewel exploits the vulnerability of the mating pair for an easy meal. Despite being closely related, these species demonstrate trophic differentiation, with dragonflies generally acting as more aggressive predators than damselflies. This interaction illustrates resource partitioning and trophic stratification within overlapping ecological niches.

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H.R. Abhilash¹ & Charles Sylvester²

¹ Mukthidhama Road, Hootagalli, Mysore, Karnataka 570018, India.

² St. Mary's Road, N.R. Mohalla, Mysore, Karnataka 570007, India.

Email: ¹abhilash2787@gmail.com (corresponding author)

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