

Abstract

The paper wasp genus *Polistes* (Hymenoptera: Vespidae), makes a salient model group for behavioural studies. This genus is abundantly found in both temperate and tropical climates. The nesting cycle varies according to the environment they live in. The tropical wasps remain active throughout the year while the temperate species use hibernation as a survival strategy during harsh winter. We studied the nesting cycle of one of the most commonly found species in north India: *Polistes wattii*. Although *P. wattii* is a tropical wasp, it follows a colony cycle similar to the temperate wasps, i.e. they go into hibernation during winter. In temperate environment, after hibernation new nests are initiated (founded) either by single female (single founding) or by multiple females (multiple founding) and the nests grow till late summer. *Polistes wattii* shows a very different founding strategy compared to the usual temperate wasps. In spring the nests are always initiated by a single wasp, while in summer both single and multiple foundresses initiate nests. Here we present a comparative analysis of different founding strategies of *P. wattii* and show how they help the wasps maximize reproductive fitness.