

**OR238**

*The specialist predator protects termite colonies from generalist predators*

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Predator-prey relationship is generally recognized as an interaction in which a predator alone benefits unilaterally at the expense of a prey. In solitary species, the prey cannot gain any benefit from being killed by the predator. In social insects, however, the death of a colony member can increase its inclusive fitness if it contributes to the survival of the colony. Here we show that a specialist predator promotes the survival of termite colonies by keeping generalist predators out of the colonies. In this study, we investigated the relationship among the specialist predator ant ‘the termite hunter’ *Pachycondyla chinensis*, the generalist predator ant *Lasius productus*, and the prey termite *Reticulitermes speratus*. We found that *P. chinensis* has a sustainable foraging strategy avoiding the annihilation of the termite colony, while *L. productus* quickly terminated the prey colony. In addition, *P. chinensis* eliminated *L. productus* when both of the ant species were placed in the same container. These results suggest that termite colonies nesting in the same wood with the specialist predator *P. chinensis* would have higher survivorship under the presence of another predator. Additionally, our field survey revealed that termite colonies coexist with *P. chinensis* more frequently than with other ant species, which strongly supports our experimental results. In conclusion, even though a portion of members were preyed on, living with *P. chinensis* is advantageous to the termite colony defense. Consequently, the victims of predation can gain inclusive fitness benefits. This is the first demonstration of ‘the benefit of being preyed on’ in a true predator-prey relationship.