**Title**

Catch a free ride with me: A report on ant hitchhiking on vehicles in Taiwan and its ecological implications

**Author names and affiliations**

Gen-Chang Hsu1, Feng-Chuan Hsu1, Ching-Chen Lee2, Chung-Chi Lin2, Chuan-Kai Ho1, Chin-Cheng Scotty Yang3

1 Institute of Ecology and Evolutionary Biology, National Taiwan University, Taipei 10617, Taiwan

2 Department of Biology, National Changhua University of Education, Changhua 50007, Taiwan

3 Department of Entomology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061, USA

**Corresponding author**

Name:

Email:

ORCID iD:

**Abstract**

Human transportation can facilitate long-distance dispersal of organisms, allowing them to colonize new areas and thus increasing the probability of biological invasions. Here, we report on 41 cases of ant hitchhiking on vehicles (cars and scooters) in Taiwan collected from the social media platform between 2017 and 2022. Among the eight hitchhiking ant species, six were invasive and constituted 93% (*n* = 38) of the cases. Moreover, about half of the cases (*n* = 22) were from the invasive species *Dolichoderus thoracicus*. The ants colonized the vehicles within a day in 60% of the cases (*n* = 25), while a few colonizations took over a month (*n* = 4). The hitchhiking events occurred more frequently during summer (June to September, *n* = 26) compared to spring (March to May, *n* = 10) or fall/winter (October to December, *n* = 5). To our knowledge, this is among the first studies of ant hitchhiking on vehicles. Further research on the factors underlying ant hitchhiking behavior and colonization attempts will provide useful implications for ant invasion management.

**Keywords**

Biological invasions, human-mediated long-distance dispersal, ant hitchhiking, ant colonization

**Introduction**

**Materials and Methods**

**Results**

Case summary

Temporal patterns

**Discussion**

Summary of results

Factors determining the success of ant hitchhiking

Implications for invasion management

**Acknowledgements**

We thank XXX for constructive comments on the early draft of this manuscript

This study was funded by (grant number YYY)

**Conflict of interest**

The author declares no conflict of interest regarding this manuscript.

**References**

**Tables and Figures**