

## Epifauna on a deep-sea hydrothermal vent squat lobster, *Shinkaia crosnieri*, in the Izena Hole of the Okinawa Trough

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Relationships between foundation species and their associating animals provide baseline knowledge towards elucidating biodiversity. Here, we report epibiotic animals associating with a foundation species, the squat lobster *Shinkaia crosnieri*, in a deep-sea hydrothermal vent field in the Okinawa Trough, Northwest Pacific, and discuss their relationships. The epibiotic fauna recorded on *S. crosnieri* included *Amphisamytha* sp., dirivultid copepod, and *Lepetodrilus nux*. Of note, the number of individuals of *Amphisamytha* sp. increased with increasing size of *S. crosnieri*. In particular, one *S. crosnieri* individual had more than 300 individuals of the dirivultid copepod, *L. nux*, and more than 30 individuals of *Amphisamytha* sp. attached to it. The results suggested that older individuals host more epifauna, contributing to greater biodiversity. Furthermore, aggregations of individuals increased habitat heterogeneity, resulting in their hosting more species.

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