

Supplementary Information for:

Observational and metabarcoding approaches offer new insights into the ecology, natural history and conservation of Scolopendra abnormis, a threatened centipede endemic to Mauritius.

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S1. Additional details on primers and positive controls

Two primer pairs were used to amplify dietary DNA in centipedes (Table S1). This method is effective at overcoming the problems associated with primer bias when using a single primer pair (Tercel et al. 2021; Cuff et al. 2023).

Table S1. Primers used in the current study. AntEx and BerenF-LuthienR primers amplify 214bp and 314bp amplicons of the mitochondrial COI gene, respectively.

Primer	Sequence (5'-3')	Source	Direction	Base pairs
AntExF (ant exclusion)	TAATTGGDGGHTTYGGWAAAYTG	This study	Forward	21
AntExR (ant exclusion)	CCTAAAATTGADGADAYHCCWGC	This study	Reverse	22
BerenF (general animal)	CAGGWTGAACWGTWTAYCCYCC	(Cuff <i>et al.</i> , 2021)	Forward	22
LuthienR (general animal)	ACTTCWGGRTGWCCAAARAAYCA	(Cuff <i>et al.</i> , 2021)	Reverse	23

Positive controls consisted of a standardised concentration (2 ng/ μ L) of an approximately equimolar mixture of DNA from amplifiable taxa that are not present on Round Island (*Anthocoris nemorum*, *Cancer pagurus*, *Chernes cimicoides*, Epicriidae sp., *Folsomia candida*, *Geophilus truncorum*, *Lasius brunneus*, *Lutra lutra*, *Metopolophium dirhodum*, *Nossidium pilosellum*, *Nudibranchia* sp., *Trichoniscus pusillus*, and *Xysticus cristatus*.). Controls were treated identically to samples, with 5 μ L of molecular grade water added instead of DNA.

Supplementary Figure S1



Figure S1. A female Serpent Island centipede, *Scolopendra abnormis*, found tending eggs beneath a rock under a *Pandanus vandermeeschii* tree. Photographed in the wet season, early March, 2020, by Max Tercel.

References

Cuff, J.P., Kitson, J.J.N., Hemprich-Bennett, D., Tercel, M.P.T.G., Browett, S.S. and Evans, D.M. 2023. The predator problem and PCR primers in molecular dietary analysis: Swamped or silenced; depth or breadth? *Molecular Ecology Resources* 23(1), pp. 41–51. doi: 10.1111/1755-0998.13705.

Tercel, M.P.T.G., Symondson, W.O.C. and Cuff, J.P. 2021. The problem of omnivory: A synthesis on omnivory and DNA metabarcoding. *Molecular ecology* 30(10), pp. 2199–2206. doi: 10.1111/mec.15903.