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Appendix I. Other Lepidoptera records from Cousine

The following species were recorded by J. GERLACH in 2001:

- Orthoctha rhodothicta* (MEYRICK, 1911) (Tineidae) Endemic
- Metachanda thaleropsis* MEYRICK, 1911 (Metachandidae) Endemic
- Epicroesa* sp. (Heliodinidae) Endemic
- Marasmia poeyalis* (BOISDUVAL, 1833) (Pyralidae) Palaeotropical
- Marasmia trebiusalis* (WALKER, 1859) (Pyralidae) Palaeotropical
- Hypenodes croceipicta aegrota* BERIO, 1962 (Noctuidae) Endemic subspecies

Invertebrates associated with the Seychelles sheath-tailed bat *Coleura seychellensis*

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The Seychelles sheath-tailed bat *Coleura seychellensis* PETERS, 1868 is a Critically Endangered (IUCN 2004) emballonurid bat restricted to the granitic islands of Seychelles. Three roost sites are known on Mahé and Silhouette. Of these the largest roost is on Silhouette, occupied by 32 individuals (Gerlach 2004). The Silhouette roost has been studied in detail since 2003 (GERLACH 2004). Observations of the roosts and the bats within it have identified a number of invertebrate species associated with the bats. Two occupied and two unoccupied cave within the roost system have different characteristics and different invertebrate faunas. Roost A is comparatively large and open, this is used regularly, usually in the early morning and late afternoon. Roost B is more enclosed and is the main permanent roost, this is also the only identified breeding site for the species. Roost C is a small abandoned roost that may have been used only occasionally. Roost D is intermediate in characteristics between roosts A and B. It is

NOTES

currently abandoned but was from the guano deposits appears to have been a significant roost in the past. The invertebrates observed in the roosts are listed below:

Roost A

Cardisoma carnifex (HERBST, 1794) (Crustacea: Decapoda) – small numbers found outside the roost, entering at night and feeding on guano

Heteropoda venatoria (LINNAEUS, 1767) (Chelicerata: Arachnida) – small numbers present in the roost at night

Isometrus maculatus GEER, 1778 (Chelicerata: Scorpiones) – one shed skin

Seychellsia nitidula BOLIVAR, 1912 (Insecta: Orthoptera) – common on the rocks at the roost entrances

Roost B

Coenobita brevimanus DANA, 1852 (Crustacea: Decapoda) – small numbers (1-3) feeding on guano at night

Heteropoda venatoria (Chelicerata: Arachnida) – common on rocks at night

Streblidae (Insecta: Diptera) – one encased bat fly larva observed feeding on a juvenile bat (Fig. 1)

Monomorium sp. (Insecta: Hymenoptera) – foraging in guano at night

Crypsithyroides concolorella (WALKER, 1863) (Insecta: Lepidoptera) – highly abundant in guano, a species associated with bird and bat guano

Roost C

Crypsithyroides concolorella (Insecta: Lepidoptera) – old larval cases found in the small guano deposit

Roost D

Crypsithyroides concolorella (Insecta: Lepidoptera) – dead but apparently recent larval cases found in the significant guano deposit.

These observations indicate that there is only a small invertebrate fauna associated with bat caves in Seychelles, the presence of crabs feeding on guano is notable. *Cardisoma carnifex* eliminate all guano from the floor of roost A but are unable to enter roost B, the smaller hermit crabs appear to be less efficient guano feeders and a deep guano deposit has built up in this roost. Highly characteristic of most roosts is the presence of larval cases of the moth *Crypsithyroides concolorella*, these are not present in roost A which has a relatively open aspect compared to the other roosts. The unidentified bat fly larva is probably an obligate associate of the Seychelles sheath-tailed bat, as there are no other potential hosts within the granitic islands it probably represents an undescribed endemic species, which will share Critically Endangered status with its host.

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Fig. 1 Bat flies on the fore-arm of a Seychelles sheath-tailed bat

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First record of the genus *Kapala* Cameron (Hymenoptera: Chalcidoidea, Eucharitidae) from Seychelles

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Members of the small family Eucharitidae containing 413 species worldwide (HERATY 2002) are known as parasitoids of ants. Until now 13 species (and one subspecies) have been recorded from Madagascar (HERATY 2002), but only one species, *Stilbula lissoma* MASI, 1917, is known from the Seychelles (Silhouette). Apparently the family Eucharitidae is absent from the other islands of the Malagasy Subregion.

The specimen has been identified by John M. HERATY during his stay in Vienna 1999 and deposited in the Hymenoptera Collection, Naturhistorisches Museum Wien.