

**NOTE ON THE DIET OF A GREY LONG-EARED BAT, *PLECOTUS AUSTRICUS* (FISCHER, 1829) FROM MDINA, MALTA (CHIROPTERA, VESPERTILIONIDAE)**

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**ABSTRACT**

The diet of a Grey Long-eared Bat, *Plecotus austriacus*, residing in a small room at the National Museum of Natural History in Mdina was analysed seasonally (spring and autumn) during a two-year period (2000-2001). Twenty-three species of moth were identified in the bat's prey remains.

The chiroptero fauna of the Maltese Islands consists of eleven species, five of which are resident while the other six are rare migrants/visitors. The Grey Long-eared Bat *Plecotus austriacus* (Fig. 1) is a resident species that has been recorded from Malta, Gozo and Comino (Borg *et al.* 1997).

This bat usually feeds by gleaning insects off leaves or the ground or catching them in the air. Schober & Grimberger (1989) list moths, flies and small beetles as this bat's diet. Individual bats establish preferred feeding perches and one bat, which has been noted roosting in a small room at the Natural History Museum in Mdina, has made the wooden beams located in the secondary stairway its favourite perch. Bats eat the fleshy parts of their prey and the wings and hard skin are usually discarded. While the bat is eating, the discarded insect wings drop down to the floor below.

Every morning during two two-month periods (April-May and September-October 2000-2001) the discarded wings were collected from the ground and were later identified by one of the authors' (P.M.S.). During a number of observations at night, the bat was seen catching moths either in flight near to hanging lamps, or from near a *Pittisporum tobira* tree, all located in the inner courtyard of the building. As soon as the prey was caught, the bat would fly directly towards its perch and slowly dismember and devour the prey.

The lepidoptero fauna of the Maltese Islands consists of about 600 species of butterflies and moths (Sammut 2000). From the prey remains collected, 23 different species of moths were identified. All these are common or very common, except for one species *Mythimna languida* which is considered as rare (Sammut 2000). The period when the

moths were collected corresponded to their peak-flying season. The identified taxa, including status and season when collected are presented in Table 1 overleaf.

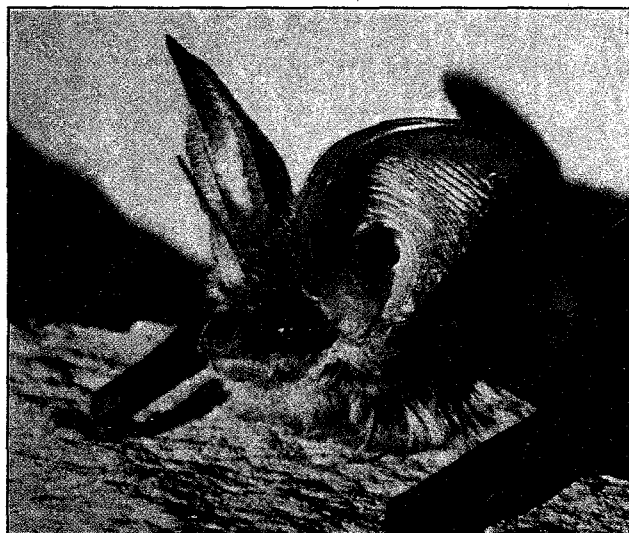


photo John J. Borg

Fig. 1 *Plecotus austriacus*

It is a known fact that bats consume large quantities of insect pests (Hill & Smith 1984). Insectivorous bats such as the Grey Long-eared Bat are highly important and beneficial taxa in the ecosystem, in the role they play by keeping down the number of insect pests. A number of pest species were identified from the sample analysed including *Galleria mellonella* a scourge in apiculture where it mines hives and bores into wooden cases. Many of the other species including *A.gamma*, *C. chalcites*, *H. peltigera*, *S. exigua* and *S. littoralis*, *N. pronuba* and the 3 *Agrotis* spp., are known pests on a variety of wild and cultivated plants.

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**Table 1. Seasonal variation and percentage of prey.**

Family	Species	Status*	Autumn sample	Spring sample
PYRALIDAE	<i>Galleria mellonella</i> (Linnaeus, 1758)	C	x	
	<i>Ulotricha egregialis</i> (Herrich-Schäffer, 1838)	C		x
SPHINGIDAE	<i>Hyles sammuti</i> Eitschberger, Danner & Surholt, 1998	C		x
	<i>Hyles livornica</i> (Esper, 1779)	C		x
	<i>Hippotion celerio</i> (Linnaeus, 1758)	C		x
NOCTUIDAE	<i>Autographa gamma</i> (Linnaeus, 1758)	VC	x	x
	<i>Chrysodeixis chalcites</i> (Esper, 1789)	VC	x	
	<i>Trichoplusia ni</i> (Hübner, 1803)	VC		x
	<i>Abrostola trigemina</i> (Werneburg, 1864)	C		x
	<i>Heliothis peltigera</i> (Denis & Schiffermüller, 1775)	VC		x
	<i>Paradrina clavipalpis</i> (Scopoli, 1763)	C	x	x
	<i>Hoplodrina ambigua</i> (Denis & Schiffermüller, 1775)	C		x
	<i>Spodoptera exigua</i> (Hübner, 1808)	VC	x	
	<i>Spodoptera littoralis</i> (Boisduval, 1833)	C		x
	<i>Discestra trifolii</i> (Hufnagel, 1766)	C	x	
	<i>Aeteria bicolorata</i> (Hufnagel, 1766)	C		x
	<i>Mythimna languida</i> (Walker, 1858)	R	x	
	<i>Mythimna unipuncta</i> (Haworth, 1809)	VC		x
	<i>Noctua pronuba</i> Linnaeus, 1758	VC		x
	<i>Peridroma saucia</i> (Hübner, 1808)	C		x
	<i>Agrotis puta</i> (Hübner, 1803)	VC		x
<i>Agrotis ipsilon</i> (Hufnagel, 1766)	VC	x		
<i>Agrotis segetum</i> (Denis & Schiffermüller, 1775)	VC	x		

\* after Sammut (2000); VC – very common; C – common; R – rare.

## REFERENCES

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