

**Table S1.** Morphometric (mass and forearm length) data for study species. Also presented are details about wing aspect ratio, wing loading, known roost types and diet.

Species	Mass (g)	Forearm (mm)	Aspect ratio	Wing loading (N m <sup>-2</sup> )	Roosts	Diet
<i>Nyctophilus corbeni</i>	14.5-17	44-46	Not available	Not available	Hollows, fissures [1] (Law et al. 2016).	≥70 % lepidopterans [1]
<i>Nyctophilus geoffroyi</i>	5-7	33-37	5.88±0.30 [2] 5.60±0.55 [3]	6.22±0.50 [2] 5.91±0.97 [3]	Hollows, fissures [4,5]	Dominated by lepidopterans. Also known to consume coleopterans, blattodeans, orthopterans, dipterans and arachnids [6]
<i>Nyctophilus gouldi</i>	8-11	38-40	5.77±0.49 [2] 5.46±0.30 [3]	6.55±0.94 [2] 6.20±1.25 [3]	Hollows, fissures [7]	Dominated by lepidopterans [8] (Gonsalves et al. 2013)
<i>Vespadelus vulturnus</i>	3.5-4.5	25-28	5.19±0.54 [3]	6.36±0.53 [3]	Hollows [9, 10] (Campbell et al. 2005; Rueegger et al. 2018)	Dominated by lepidopterans but also known to take dipterans [8] (Gonsalves et al. 2013)

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