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## Canines make the difference: a new species of *Hypsugo* (Chiroptera: Vespertilionidae) from Laos and Vietnam

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### Abstract

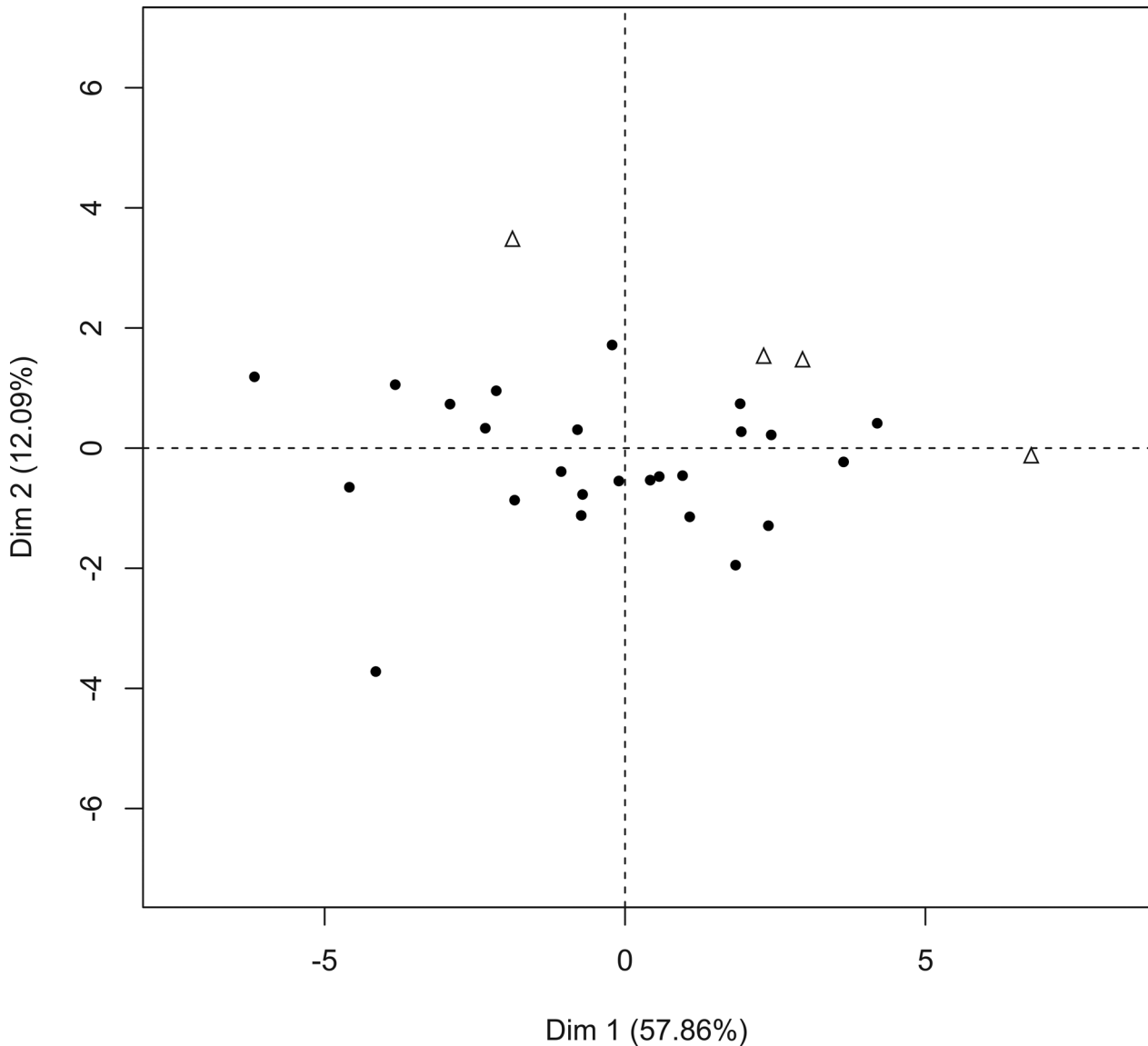
*Hypsugo* was regarded as a subgenus of *Pipistrellus* by many authors, but its generic distinctiveness is now widely accepted. According to recent taxonomic arrangements, nine species are known to occur in Southeast Asia. During the investigation of material recently collected from Lao PDR and Vietnam we identified an additional species and hence describe it here as *Hypsugo dolichodon* n. sp. It resembles *H. pulveratus*, but is larger with conspicuously long canines and differs considerably in the DNA barcode gene sequence.

**Key words:** biodiversity, Indomalayan Region, pipistrelloid bats, taxonomy

### Introduction

Due to their similar external appearance and similar dental formula, *Hypsugo* was often regarded as part of the genus *Pipistrellus* (albeit separated at subgeneric level) by many authors (Tate 1942; Ellerman & Morrison-Scott 1951; Corbet & Hill 1992; Koopman 1994; Bates & Harrison 1997). Even in a recent synthesizing work about African bats, *Hypsugo* (and *Neoromicia*) were merged into *Pipistrellus* because the authors felt “it is not possible to distinguish these genera from each other, and from *Pipistrellus* (*sensu stricto*), on the basis of external characters” (Happold & Happold 2013: 601). However, certain external features are known to separate *Hypsugo* from *Pipistrellus* (Topál 1969; Horáček & Hanák 1986; Borisenko & Kruskop 2003; Kruskop 2013). Horáček & Hanák (1986) listed several additional penial, bacular and dental traits and consequently distinguished these bats at genus level. Their opinion was further corroborated by karyological data (Volleth & Heller 1994; Volleth *et al.* 2001), isozyme comparisons (Ruedi & Arlettaz 1991), and genetic analyses (Roehrs *et al.* 2010). Some of these suggest that *Hypsugo* is, in fact, not closely related to *Pipistrellus*. The two genera are regarded by Simmons (2005) as belonging to two different tribes within Vespertilioninae (Vespertilionini and Pipistrellini, respectively), although the tribal boundaries were not exactly supported by Roehrs *et al.* (2010).

Although no subdivisions have been formally established within *Hypsugo*, different “groups” were introduced at various times. Corbet & Hill (1992) divided Indomalayan *Hypsugo* (regarded as a subgenus of *Pipistrellus*) into two groups, namely ‘*savii*-group’ (with four subgroups) and ‘*stenopterus*-group’. *H. pulveratus* is usually regarded as the only species in a subgroup of its own within the ‘*savii*-group’ (Hill & Harrison 1987; Corbet & Hill 1992)



**FIGURE 6.** Principal Component Analysis based on 14 craniodental characters of *H. pulveratus* (black circles) and *H. dolichodon* n. sp. (empty triangles).

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