

## Savi's pipistrelle (*Hypsugo savii* Bonaparte, 1837) new species in the bat fauna of Mecsek Mountains, SW Hungary

Az alpesi denevér (*Hypsugo savii*) új faj a Mecsekben

Tamás GÖRFÖL

### Abstract

On 06.08.2007 echolocation calls were recorded during mist-netting by the pond of the Arboretum of Hosszúhetény–Püspökszentlászló. Among 40 recorded sounds a single call is considered to be the echolocation call of Savi's pipistrelle. Greater horseshoe bat (*Rhinolophus ferrumequinum*), Daubenton's bat (*Myotis daubentonii*), whiskered bat (*M. mystacinus*), Bechstein's bat (*M. bechsteini*), greater mouse-eared bat (*M. myotis*), noctule (*Nyctalus noctula*), Leisler's bat (*N. leisleri*), serotine (*Eptesicus serotinus*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*), Kuhl's pipistrelle (*P. kuhlii*), brown long-eared bat (*Plecotus auritus*), grey long-eared bat (*P. austriacus*) and barbastelle (*Barbastella barbastellus*) were also present in the area. With this data, 24 bat species are reported from the Mecsek Mountains.

### Key words

Mammalia, Chiroptera, *Hypsugo savii*, echolocation call, Mecsek Mountains, SW Hungary

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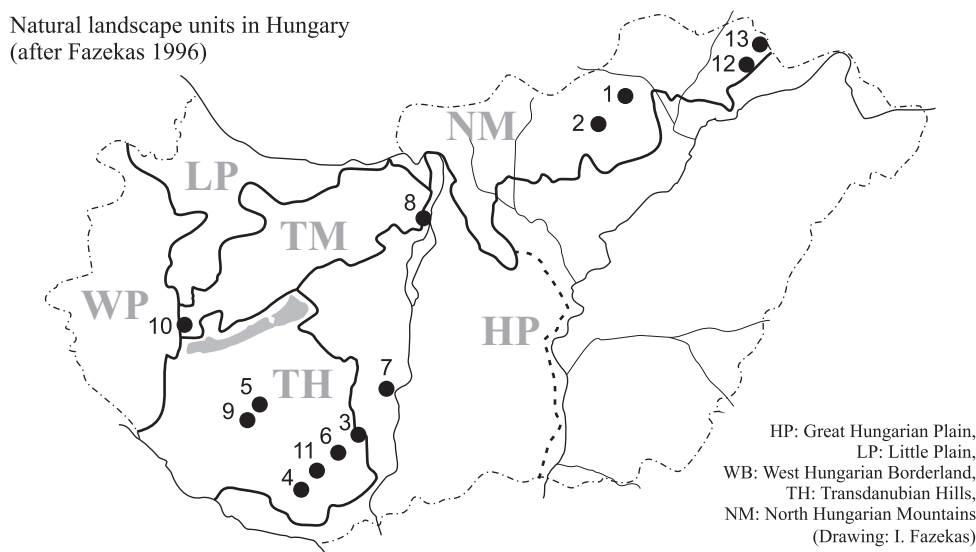
### Introduction

Savi's pipistrelle is predominantly a Mediterranean species in Europe (MITCHELL-JONES et al. 1999), but in the last few years it has been encountered more frequently in Hungary and in the neighboring countries to the north, as well (BARTONIČKA & KAŇUCH 2006, GAISLER 2001, GAISLER & VLAŠÍN 2003, LEHOTSKÁ 2006, LEHOTSKÁ & LEHOTSKÝ 2006). In recent years in south Hungary SZATYOR et al. (2003) found the species at Pécs and Szekszárd, PURGER (2005) at Orci and there are new data about its occurrence in Bonyhád, Paks and Kaposvár (Imre Dombi personal communication and own data). According to SZATYOR (2006) this species was not part of the bat fauna of the Mecsek Mountains until now.

### Materials and Methods

Püspökszentlászló is a settlement of about 30 houses and administratively a part of the village Hosszúhetény. On the edge of the settlement there is a mansion, which has an arboretum with many centuries-old trees. There is a 13x30 meter large pond in the arboretum (370 m a.s.l.), providing an excellent drinking place for the bats live in the neighborhood.

Echolocation calls of the visiting bats were recorded with a Pettersson D240x bat detector (Pettersson Elektronik AB) and a Sony WM-D6C professional cassette recorder (Sony Co.) in time expansion mode. The recorded sounds were analyzed with Adobe Audition 2.0 sound analyzer software (Adobe Systems Inc.). Beside ultrasound recording mist-netting was also conducted, four Ecotone mist-nets (12 meters in length, 75/2 linewidth) were also used to capture bats.



**Fig. 1.** The distribution of Savi's pipistrelle (*Hypsugo savii*) in Hungary (according to GÖRFÖL, DOMBI & ZSEBŐK 2007) – 1: Miskolc–Hámor, 2: Eger, 3: Szekszárd, 4: Pécs, 5: Orci, 6: Bonyhád, 7: Paks, 8: Budapest, 9: Kaposvár, 10: Hévíz, 11: Hosszúhetény–Püspökszentlászló, 12: Sárospatak, 13: Sátoraljaújhely

**1. ábra.** Az alpesi denevér (*Hypsugo savii*) magyarországi elterjedése (GÖRFÖL, DOMBI & ZSEBŐK 2007 alapján)

## Results and Discussion

Among the 40 sounds recorded on 06.08.2007 a single call consisting of 10–12 ms long constant impulses with 150–250 ms breaks between each pulse was found. The peak frequency of the impulses were 33,5–34,5 kHz. The call was identified according to BARATAUD (1996) and RUSSO & JONES (2002) as that of a Savi's pipistrelle. Based on mist-netting and sound recordings taken on the same night the following bat species were also present: Daubenton's bat (*Myotis daubentonii*), whiskered bat (*M. mystacinus*), Bechstein's bat (*M. bechsteini*), greater mouse-eared bat (*M. myotis*), noctule (*Nyctalus noctula*), Leisler's bat (*N. leisleri*), serotine (*Eptesicus serotinus*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*), Kuhl's pipistrelle (*P. kuhlii*), brown long-eared bat (*Plecotus auritus*), grey long-eared bat (*P. austriacus*), barbastelle (*Barbastella barbastellus*). A sheltering specimen of the greater horseshoe bat (*Rhinolophus ferrumequinum*) was also observed in the attic of the church in the arboretum.

The occurrence of Savi's pipistrelle in Hosszúhetény–Püspökszentlászló is interesting because the species has been found earlier primarily in larger cities in Hungary. It's conceivable that this individual was a vagrant or migrant specimen, but we cannot rule out that there is a local colony in Hosszúhetény–Püspökszentlászló, since according to HORÁČEK & BENDA (2004) in the southern part of Europe the Savi's pipistrelle mainly lives in buildings and in rock crevices.

The Savi's pipistrelle is obviously spreading in our country. In the last years it has been proven that the species is reproducing in at least two cities, so it's possible that after the cities

and towns – similarly to the Kuhl's pipistrelle – it will be widespread in small villages and in natural habitats too.

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## Az alpesi denevér (*Hypsugo savii*) új faj a Mecsekben

### Összefoglalás

2007. augusztus 6-án denevérhálózás közben a püspökszentlászlói arborétum tavanál sikerült felvenni egy arra repülő alpesi denevér (*Hypsugo savii*) hangját. A faj legközelebbi adata Pécsről származik, a püspökszentlászlói példány kóborló, vonuló egyed, vagy esetleg egy helyi kolónia képviselője lehet. Az alpesi denevér az utóbbi években egyre nagyobb számban kerül kézre, elsősorban nagyobb városokból. Mivel a faj Dél-Európában kisebb falvak házaiban, illetve sziklarepedésekben is megtelepszik, elképzelhető, hogy hamarosan nálunk is gyakoribb lesz a nagyvárosokon kívül is. Az alpesi denevér kimutatásával a Mecsekben előforduló denevérfajok száma 24-re emelkedett.

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