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The discovery of two Savi's pipistrelles under a stone, reveals its adaptation to shrub steppe habitats

El hallazgo de dos murciélagos montañeros (*Hypsugo savii*) bajo una piedra, muestra su adaptación a los hábitats esteparios de arbustos

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Most of bats rest in high places, out of reach of possible terrestrial predators. However in África, South America and North America, some species are able to take refuge on the ground, under stones, especially in deserted habitat (Fenton, 1992; Davis *et al.*, 1994). The only data in Europe refer to *Myotis daubentonii* that have been found in fissures in loose material on the ground (Baagøe *et al.*, 1988).

On April 25 2005, at 12:30 o'clock (G.M.T.), during a prospection of reptiles in Peñadil (Navarra, Northern Spain), there were found two females of *Hypsugo savii* resting under a rock of gypsum, convexed and relatively big (more than 50 cm long). The two specimen were together, holding on to the rock (face up), active and in good health.

The rock was in a hillside of scarce slope, orientated SW, in a naked clearing with lichenic scab, at 390 m.a.s.l. (UTM: 30TXM1645). The weather of that day was dry and sunny, with a temperature of 19ºC. Peñadil is a big dry extension (500 mm of annual precipitation) and flat, formed by gypsum and provided with rocks, holes and fissures on the floor. The typical vegetation is the mediterranean heath of *Rosmarinus officinalis, Thymus vulgaris* and *Artemisia herba-alba*. There are no caves, mines or rockeries, but only a stone quarry in exploitation located at around 2 km from the observation place. The buildings (cattle sheds) are very scarce and some are in ruins; the only trees in the area are young forests of *Pinus halepensis*.

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Savi's pipistrelle usually roosts in rockery cracks, buildings or trees (Masson, 1999; Prieto, 2002) and it is generally associated with the presence of mountains.

In Peñadil, as well as in other near areas with a similar structure in the South of Navarre (Fig. 1), numerous Savii's pipistrelles have been listened (with ultrasound detector) hunting during the night, what indicates that this species is common in this kind of habitat. Their presence in these areas, where typical roosts are scarce or absent, induces us to suspect that this bat could use cracks of the floor regularly, as an adaptation to live in shrub steppe habitats where no crevices, buildings or old trees are present and no rain could disturb it.

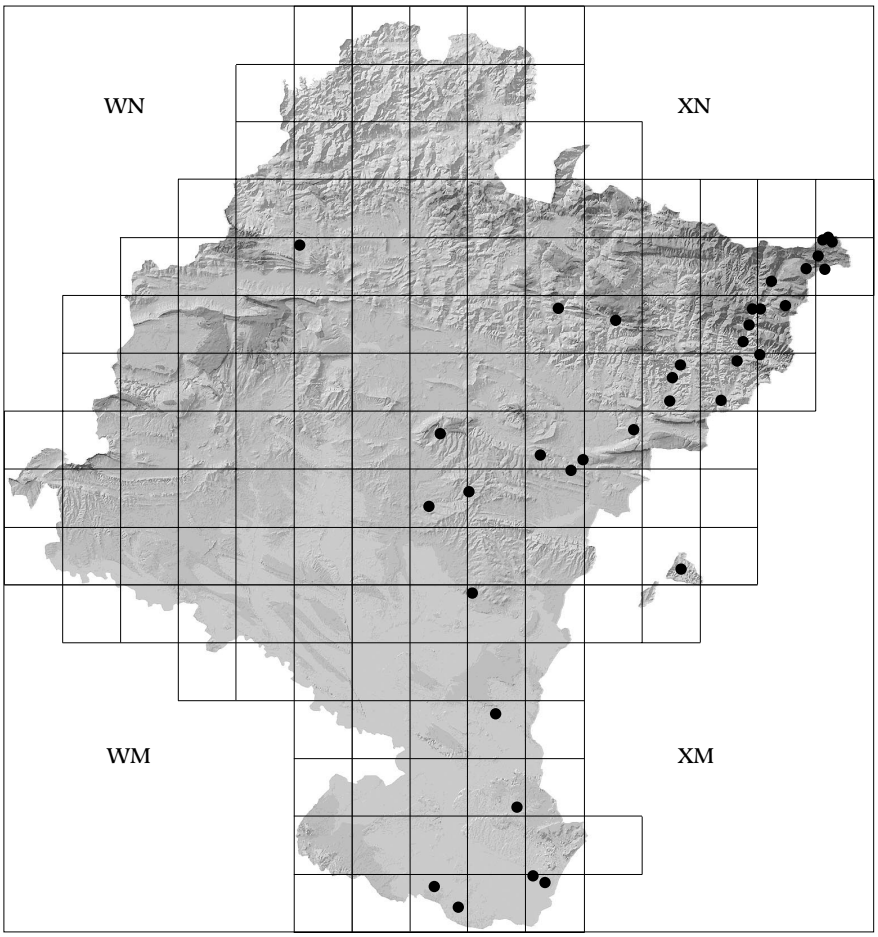

Figura 1.- Citas del murciélago montañero (*H. savii*) en Navarra (datos de los autores).
*Figure 1.- Records of Savii's pipistrelle (*H. savii*) in Navarre (data from the authors).*

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