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PIPISTRELLUS KUHLII KUHL, 1819, A NEW REPORTED SPECIES FOR THE CHIROPTERAN FAUNA OF MOLDAVIA (ROMANIA)

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Abstract. The authors report *Pipistrellus kuhlii* Kuhl, 1819 in Iași (Moldavia) for the first time, also presenting the place, date and features of the roost, including morphometrical, distributional and biological data of the species.

Résumé. Les auteurs mentionnent *Pipistrellus kuhlii* Kuhl, 1819 pour la première fois à Iași (Moldavie), présentant également le lieu, la date et les particularités du refuge, y compris des données morphométriques, distributionnelles et biologiques de l'espèce.

Key words: capture, *Pipistrellus kuhlii*, new report, Moldavia.

In the evening of 12th October 2004, we got on the balcony of our house, which had the window wide open as the time of rime hadn't arrived yet, and we used an ultrasound detector. When we used the frequency of almost 40 kHz for detecting bats, we clearly heard the sounds emitted by one of them: a kind of: "pip, pop, pop". It was very distinct but we didn't know whether the bat uttering them had its refuge outside or inside the balcony where an old wardrobe, a small table, a few chairs and some plastic bags with old-fashioned clothes were.

The signals we had heard were very clear in our minds and, using the information presented in a series of scientific communications (Decu et al., 2003; Limpens, 2000; Schober & Grimmberger, 1997), we reached the conclusion that the ultrasounds intercepted belonged to a specimen of *Pipistrellus kuhlii*; but whom to tell it to and who would believe it? We doubt neither the performances of some ultrasound detectors nor the beliefs of some specialists in the domain in what regards the utility of their use, but we were at the beginning; we didn't have the necessary practice and consequently, we could not rely on suppositions. So we gave up the intention of writing a scientific communication on this subject.

Yet, in the morning of 17th January 2005, we had a great surprise. On the formerly mentioned balcony (in town Iași), in a plastic bag, we discovered a small bat hibernating profoundly. We carefully took it as if it were a China to the University where it were to be minutely examined – weighed, measured, photographed – in order to determine its identity. And so it was to be: a *Pipistrellus kuhlii*, probably the one that in October emitted the ultrasound signals intercepted by our detector.

Description of *Pipistrellus kuhlii* Kuhl, 1819 (Figs 1 - 4)

Pipistrellus kuhlii is a middle sized species. Our measurement had the following results: head-body length = 46 mm, tail length = 33 mm, ear length = 12.3 mm, forearm length = 36.5 mm, finger V length = 43.8 mm, finger III length = 60.8 and weight = 6.7 g.



Fig. 1 – *Pipistrellus kuhlii*: general aspect (photo – I. Ifrim).



Fig. 2 – *Pipistrellus kuhlii*: the ear, the tragus and the white stripe from the plagiopatagium level (photo – B. Vornicu).

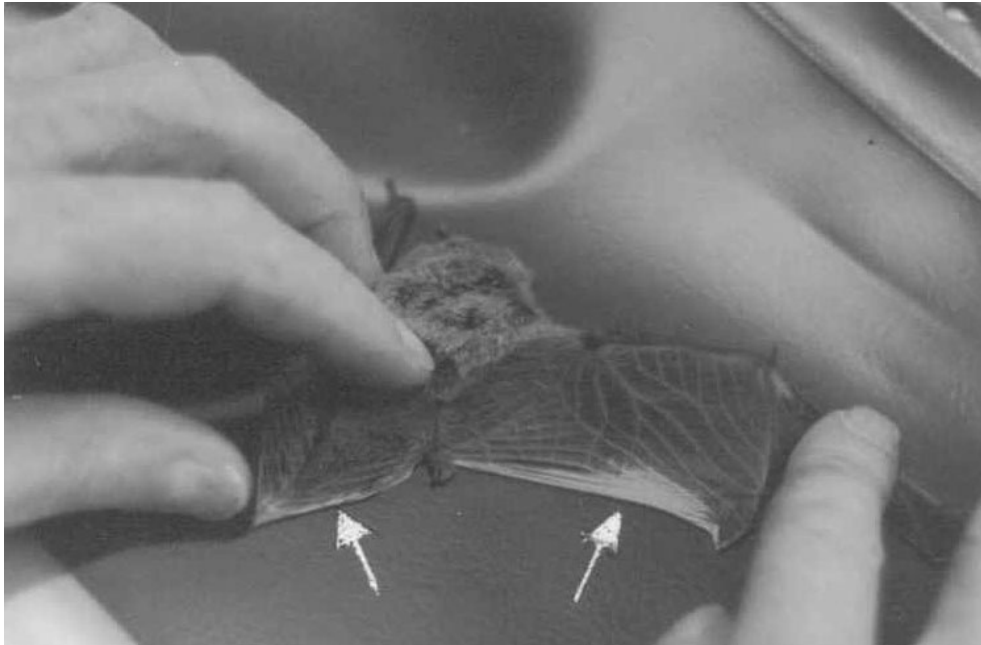


Fig. 3 – *Pipistrellus kuhlii*: the alar membrane from the plagiopatagium and the uropatagium level (photo – I. Ifrim).



Fig. 4 – *Pipistrellus kuhlii*: the shape of the penis (photo – B. Vornicu).

The hairs of the fur have the basal half dark-brown and the terminal half brown-yellowish similar to the hue of the sand (Fig.1). Its nose and ears have no obvious contrasting colour but one very close to that of the fur. The ear has a triangular shape with a rounded tip and the exterior margin slightly hollowed (Fig. 2). The tragus is evidently bigger in length than in width and has a terminal part bent towards the inner margin of the ear.

The alar membrane has a dark, contrasting colour and a white, bright and beautiful strip on its terminal margin, which in the region of the plagiopatagium (Fig. 3) has a width up to 5 mm, continued also on a part of the dactylopatagium and on the entire width of the uropatagium. The spur has a clearly marked epiblema and a split – a ramification of the spur – and the tail tip does not exceed 1 mm in length. It has a cylindrical elongated and sharp-tipped spear-like penis which does not present the contrasting stripe as in the case of *Pipistrellus pipistrellus* (Fig. 4).

The superior incisors (I¹ and I²) are monocuspitate and because the latter (I²) is almost three times shorter than the former it hardly pierces the gum. The last superior premolar – the specimens of the species have only two superior premolars – also known as big premolar, comes into contact with the crown of the eye-tooth so as the small premolar is pushed towards the inner part of the tooth row and is not observed in profile.

As regards the spreading of the species in Europe, the information from the specialised literature (Decu et al., 2003; Dietz & von Helversen, 2004; Schober & Grimmberger, 1997) declare it present in the southern area - Iberian Peninsula, South of France, Italy, Switzerland, South of Germany, Austria, and the southern part of the Balkan Peninsula (as far as the South of Bulgaria according to Dietz & von Helversen, 2004).

Pipistrellus kuhlii is considered an anthropophilous species - domestic - which expresses preferences for the shelters offered by the buildings of the human agglomerations. It is not known precisely whether it is a migratory or a sedentary species.

DISCUSSIONS

We owe the first records in the Romanian fauna of *Pipistrellus kuhlii*, formerly known as *Vesperugo kuhlii*, to Daday (1885) who stated that the species had been identified in six localities in Transylvania.

Fifteen years later, in a monography, Mehely (1900) denied Daday's statements, considering that he had made a confusion, especially as no such specimen could be found in the Museum of Cluj's collections. A hundred years ever since no foreign or native author (Călinescu, 1931; Dietz & von Helversen, 2004; Dumitrescu et al., 1962-1963; Schober & Grimmberger, 1997; Valenciuc, 2002) mentioned anything about the presence of this species on the Romanian territory.

It is only in 2002 that Gheorghiu & Murariu (2002) let us know the fact that Limpens (2000) from Holland identified the presence of *Pipistrellus kuhlii* at Cefa (Bihor) and Cloșani (Gorj) using an ultrasound detector. Their attempt to reinstate Daday (1885) without any arguments proved to be uninspired and misleading. When they realized their failure, the same authors gave up marking the localities mentioned by Daday on the distribution map of the species in Romania from their book that appeared later (Decu et al., 2003). We consider it a necessary and welcomed rectification.

In conclusion, in 2005, we disposed Limpens' statements regarding the presence of the *Pipistrellus kuhlii* in the Romanian fauna as he heard it by using an ultrasound detector in two localities and also the accounts of the present communication's authors who did not just have the opportunity to hear but to find, infer and analyse it, too.

After a careful examination, the bat has been placed in a proper shelter. We consider that the photographs, measurements and the description made are enough arguments to spare us the idea of keeping it in a preservative liquid. We did not want to cast a shadow upon the happiness of our first meeting with the pain of a sacrifice. We hope that our lines will see the light of printing and that *Pipistrellus kuhlii* will survive the hostility of winter.

PIPISTRELLUS KUHLII KUHL, 1819, O SPECIE NOU SEMNALATĂ
PENTRU FAUNA DE CHIROPTERE DIN MOLDOVA (ROMÂNIA)

REZUMAT

Autorii înregistrează pentru prima dată specia *Pipistrellus kuhlii* Kuhl, 1819, în Iași (Moldova) prezentând locul, data și caracteristicile adăpostului împreună cu o scurtă descriere, incluzând date morfometrice, distribuția și biologia speciei.

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