

LORENZO FORNASARI, LUCIANO BANI,
ELISABETTA DE CARLI e CARLO MORELLI

A NEW ITALIAN RECOVERY OF RINGED NATHUSIUS' BAT

SUMMARY - On September 25th, 1998 a ringed Nathusius' Bat was found at "la Rasa di Varese" (Campo dei Fiori Regional Park). The specimen was ringed in Germany (3 km South-West of Beeskov) on April 4th of the same year. This finding is described according to the situation of the species in Northern Italy and in Varese Province (Lombardy).

RIASSUNTO - Nuovo ritrovamento italiano di *Pipistrello di Nathusius* (*Pipistrellus nathusii*) inanellato all'estero. Il 25 settembre 1998 è stato rinvenuto presso la Rasa di Varese (Parco Regionale del Campo dei Fiori) un Pipistrello di Nathusius inanellato in Germania (3 km a Sud-Ovest di Beeskov) il 4 aprile dello stesso anno. Questo ritrovamento viene descritto alla luce della situazione di *Pipistrellus nathusii* in Italia settentrionale e nella Provincia di Varese.

Recoveries of Bats ringed abroad are very scarce events in European countries and most of all in Italy, due to the paucity of field research on migrating Chiroptera. On the other hand, some of the European species are well known to migrate long distances, so that the research on long distance migrants (*Myotis dasycneme*, *Pipistrellus nathusii*, *Nyctalus noctula*, *Miniopterus schreibersi*) has been indicated as one of the priorities within the Agreement for the Conservation of Bats in Europe. For this reason it appears important to acknowledge every new, long distance recovery data.

In the contest of a 4 years research project on Bat conservation in the Campo dei Fiori Regional Park (Varese; see FORNASARI *et al.*, 1999a), we were looking for Bat observation in possible sites for roosts, such as churches. During this work, we were kindly provided with a specimen of Nathusius' Bat found dead in the parish house by the Rasa village priest Don Elio Gentili, Biologist. The priest found the Bat hanging within a garment on September 25th, 1998.

Thanks to the information kindly supplied by Dr. U. Zöphel, Sächsisches Landesamt für Umwelt un Geologie, Dresden, Germany, it was ascertained that the Bat was ringed on July 4th, 1998, 3 km SW of Beeskow by Dr. Axel Schmidt. The finding occurred 2 months and 21 days after the ringing date, at a distance of 802 km. The Bat was a juvenile male carrying the ring "Dresden C05110".

We took the following measurements from the specimen: forearm length 33.4 mm, tail length 31.8 mm, head-body length 44.9 mm, ear length 10.1 mm, third finger length 54.9 mm, fifth finger length 42.5 mm, wingspan 218 mm. The specimen is now conserved in the Park seat.

According to MASING (1988), *Pipistrellus nathusii* is a species known for its long dis-

* Dept. Environmental Sciences - University of Milano Bicocca.

tance migration. In Central and Western Europe migration distances up to 1280 km have been ascertained, while in Eastern Europe STRELKOV (1969) has recorded several ringed Bats of this species covering migratory movements up to 1600 km. In Italy some previous recoveries were reported by NIEDERFINIGER *et al.* (1990): three Nathusius' Bats coming from Latvia were found in North-Eastern Italy, respectively a female (alive) in Trentino Alto Adige (Merano), a female (accidentally killed) in Veneto (Valle Grassabò), and a male (found dead) in Friuli-Venezia Giulia (Gorizia). If we consider the small number of Bats ringed and even more the very little number of recoveries, we have a good indication that the Nathusius' Bat is a regular migrant species for Northern Italy. In fact, in Switzerland it is mainly observed on mountain crossings during autumn migration (ARLETTAZ *et al.*, 1997). All of the four findings indicate a Bat flow from NE Europe.

LANZA (1959) quoted the *Pipistrellus nathusii* as a species not very frequent in Italy, especially in the Southern regions (not recorded at that time in Campania and Sardinia). More recently, the change of census methods with the introduction of ultrasound detectors resulted an increase of Nathusius' Bats records (JUDES, 1989; FORNASARI *et al.*, 1999b; SPEAKMAN *et al.*, 1991). In the Varese Province the species has been known for a century, a male specimen collected in 1895 at Cittiglio (Municipality on the Southern border of the Campo dei Fiori Regional Park) is preserved in the collections of the University Zoological Museum of Florence "La Specola" (Mag.1978/38 - N.Coll.7250).

Two surveys conducted by bat-detector in this area revealed that the species is not rare (FORNASARI *et al.*, 1998a). In 1997, 7 out of 414 Bats of 11 species were determined as Nathusius' Bats; the observations appeared mainly gathered in a cluster along the Olona Valley, just around the Rasa Village. In 1998 additional observations were performed at the bottom of the Valganna Valley, on the opposite side of the Mount Martica.

For the close Swiss Ticino Canton, SALVIONI & FOSSATI (1992) quoted the species mainly as a winter visitor. However, recently MARTINOLI *et al.* (1999) reported on the finding of a lactating female in the Valganna Municipality, few kilometers North-West from the same Park; this was the first data on Nathusius' Bat probably reproductive in Italy. The presence of several Bats during the breeding period and the finding of long distance migrants lead to the conclusion that a complex population dynamic exists. For this reason, it clearly appears that this species needs more detailed studies.

REFERENCES

- ARLETTAZ R., LUGON A., SIERRO A. & DESFAYES M., 1997 - *Les chauves-souris du Valais (Suisse): statut, zoogéographie et écologie*. Le Rhinolophe, 12: 1-42.
- FORNASARI L., L. BANI, E. DE CARLI, B. ZAVA, A. UGGERI & F. PIANEZZA, 1999a - *I Chiroterri nel sistema carsico del Monte Campo dei Fiori (Lombardia)*. Atti I Convegno Italiano sui Chiroterri, Castell' Azzara (Grosseto): 83-98.
- FORNASARI L., L. BANI, E. DE CARLI, E. GORI, F. FARINA, C. VIOLANI & B. ZAVA, 1999b - *Dati sulla distribuzione geografica e ambientale dei Chiroterri nell'Italia continentale e peninsulare*. Atti I Convegno Italiano sui Chiroterri, Castell' Azzara (Grosseto): 63-81.
- JUDES U., 1989 - *Analysis of the distribution of flying bats along line transects*. In: V. HANAK, J. HORACEK & J. GAISLER (Eds) - *European Bat Research*: 311-318. Prague, Charles University Press.
- LANZA B., 1959 - *Chiroptera*. In: Toschi A. & Lanza B., "Fauna d'Italia, Vol IV. Mammalia (Generalità - Insectivora - Chiroptera)". Ed Calderini, Bologna, pp. 1-473.
- MARTINOLI A., D. PREATONI, G. TOSI, 2000 - *Does Nathusius' Pipistrelle Pipistrellus nathusii (Keyserling & Balsius, 1839) breed in Northern Italy?*. J. Zool.: Lond. (In press).
- MASING M., 1988 - *Long-distance flights of Pipistrellus nathusii banded or recaptured in Estonia*. Myotis, 26: 159-164.
- NIEDERFINIGER O., RALLO G., VIOLANI C. & ZAVA B., 1990 - *Ringed Nathusius' Bats, Pipistrellus nathusii, recovered in N Italy (Mammalia Chiroptera)*. Atti Soc. It. Sc. Nat., 131: 281-284.

- SALVIONI M., FOSSATI A., 1992 - *I Mammiferi del Canton Ticino*. Note sulla distribuzione. Lega svizzera per la protezione della natura, Sezione Ticino.
- SPEAKMAN J., RACEY P.A., HUTSON A.M., WEBB P.I. & BURNETT A.M., 1991 - *Status of Nathusius pipistrelle (Pipistrellus nathusii) in Britain*. J. Zool., Lond., 225: 685-690.
- STRELKOV P.P., 1969 - *Migratory and stationary Bats (Chiroptera) of the European part of the Soviet Union*. Acta Zool. Cracov., 14: 393-440.

Indirizzo degli autori:

Dept. Environmental Sciences - University of Milano Bicocca, P.zza della Scienza, 1 - I-20126 Milano, Italy
e-mail: cobil@alpha.disat.unimib.it