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Notes on the distribution of small mammals (Insectivora, Rodentia) in Epeirus, Greece

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Abstract. The material of 107 specimens of small mammals was collected in 19 localities of Epeirus in the years 1985—1989. Additional faunistic records were obtained by field observations. Together, information on the distribution of 14 species were obtained. From these Miller's water shrew (*Neomys anomalus*) is reported first time from this region. Some questions concerning the distribution and habitats of individual species are discussed.

Key words. Mammalia, Insectivora, Rodentia, distribution, taxonomy, Epeirus, Greece.

Introduction

The mammal fauna of the west coast of the Balkan peninsula, south of Neretva river, belongs to the most interesting of Europe. The reason for this is above all an unusually high occurrence of endemism which is typical for this area.

So far, only the northernmost part of this area, i. e., Monte Negro, Jugoslavia has been investigated satisfactorily (Petrov 1979). From the rest of this area data are either almost completely absent (Albania) or they are very incomplete (Greece). Therefore, the present paper is intended to contribute to the knowledge of small mammals of Epeirus, a region which is situated in the north-west part of Greece, in the close proximity of Albania.

The first data on small of this region were published by Miller (1912) who had at his disposal a small series of mammals from the island Korfu. Later, the mammal fauna of this island was investigated in more detail by Niethammer (1962) so that nowadays Korfu represents the most thoroughly investigated part of Epeirus.

However, from the Epeirus mainland only rather fragmentary data are available. Some information is contained in the paper by Hatzisarantos et al. (1962) which, however, suffered from an evidently incorrect determination of some systematically more difficult groups (e. g., genera *Talpa*, *Pitymys*). As late as papers by Ondrias (1965, 1966) and Niethammer (1974) contributed more to the knowledge of the mammal fauna of this region. Individual data on the occurrence of small mammals in Epeirus are also contained in papers by Peus (1964), Felten & Storch (1965), Giagia & Ondrias (1980), Winking et al. (1981), Niethammer (1986) and others.

The aim of the present paper is to contribute to the knowledge of the distribution of small mammals (Insectivora, Rodentia) of Epeirus on the basis of a material collected during several trips to the region during the years 1985, 1988 and 1989. These date were completed by occasional field observations made in the period 1984—1989.

Material and Methods

Small mammals were mostly caught in snap traps (size 15x6 and/or 10x5 cm), the bait used was a wick roasted in sunflower oil with flour. The voles *Pitymys thomasi* were obtained by digging out from their burrows.

The material is deposited in the collection of the Department of Systematic Zoology, Charles University, Prague.

Whenever body measurements are given, these were taken as follows: length of the tail — from the centre of the anal orifice to the tip of the tail, without terminal hairs (1 mm precision); length of the hind foot — without claws (0.1 mm precision).

Measurements on the mole skull were taken according to the method proposed by Petrov (1971): rostral breadth — the distance between the most lateral points of the maxillar bone in M^1-M^2 region; greatest width of M^2 — taken perpendicularly to the skull axis; greatest diameter of M^1. All these measurements were taken using a vernier-caliper and a binocular magnifier, with the precision 0.1 resp. 0.05 mm (teeth measurements).

Table 1: Total survey of the material.

	Number of specimens	Number of localities
Talpa stankovici	1	1
Neomys anomalus	1	1
Crocidura suaveolens	24	6
Mus abbotti	9	3
Mus domesticus	7	4
Apodemus sylvaticus	13	6
Apodemus flavicollis	15	8
A. sylv./fl. (indet.)	2	(1)
Apodemus mystacinus	9	2
Rattus rattus	4	2
Pitymys thomasi	2	1
Microtus epiroticus	20	1
Total	107	—

List of localities (Fig. 1)

1. Loutra Isvorou (dwarf spa), distr. Ioannina, 1 August 1985 — deciduous forest about 0.5 km NE of the spa, altitude ca 1350 m.
2. Amarantos (village), distr. Ioannina, 3 August 1985 — bank of the stream in deciduous forest about 1.5 km W of the village, altitude 900 m.
3. Agia Varvara (village), distr. Ioannina, 4 August 1985 — banks of the stream in the deciduous forest at about 0.5 km N of the village, altitude 800 m.
4. Konitsa (town), distr. Ioannina, 29—30 July 1985 — rubble on rocky slopes along the river Aoos about 1 km S ot the town (*Apodemus mystacinus*) and thickets and small stone walls between fields about 1 km SW of the town (rest of the material), altitude 550 resp. 480 m.
5. Megalo Papiggo (village), distr. Ioannina, 25—26 September 1988 — rocks covered by sparse thickets in a valley about 1 km E of the village (*A. mystacinus*) and gardens in the village (*A. sylvaticus*), altitude ca 1000 m.
6. Aidonochori (village), distr. Ioannina, 28 September 1988 — thickets along fields on the left bank of the river Aoos about 2 km NW of the village, altitude 400 m.
7. Klidonia (village), distr. Ioannina, 27 September 1988 — a plane grove on the left bank of the river Voidomatis about 1 km SW of the village, altitude 420 m.

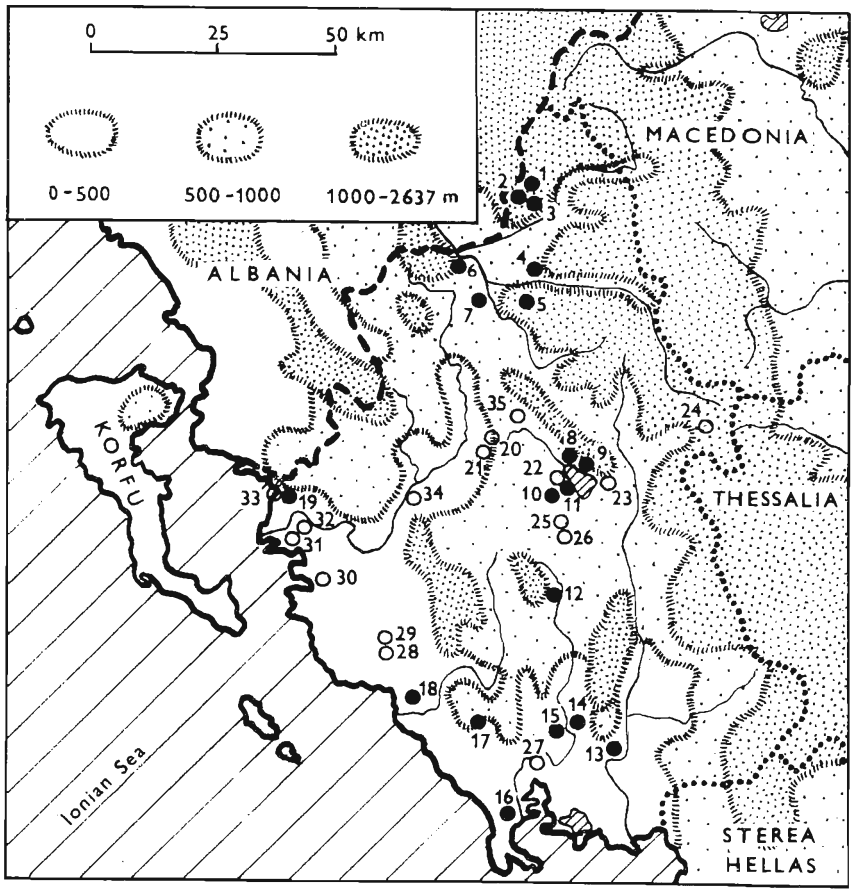

Fig. 1: Map of Epeirus, Greece with the survey of the localities visited. Description of the localities from which material has been collected (full rings) — see List of localities. Localities of the field observations (open rings) are these: 20 — Klimatia, 21 — 2 km NW of Lefkothea, 22 — Ioannina, 23 — Longades, 24 — Metsovo, 25 — 3 km E of Episkopito, 26 — 2 km W of Avgo, 27 — 2 km N of Petra, 28 — 3 km S of Margariti, 29 — Kalodiki, 30 — Plataria, 31 — Nea Selefkia, 32 — Ragio, 33 — Sagiada, 34 — Vrosina, 35 — Karies.

8. Perama (village), distr. Ioannina, 21—25 July and 19—20 August 1985 — a neglected garden overgrown by dense herbaceous vegetation (predominantly nettle — *Urtica dioica* and bindweed — *Calystegia* sp.) in the village and reed stands along the lake shore on the outskirts of the village, altitude 480 m.
9. Amphithea (village), distr. Ioannina, 23 July 1985 — thickets along pastures on the outskirts of the village, altitude 480 m.
10. Kosmira (village), distr. Ioannina, 5 July 1989 — hedgerows along gardens about 2 km S of the village, altitude ca 800 m.
11. Anatoli (village), distr. Ioannina, 24 April 1989 — near a water canal with rich vegetation, altitude 480 m.
12. Vouliasta (village), distr. Ioannina, 18—19 July 1985 — lowland deciduous forest on the bank of the river Louros, about 0.5 km from the village, altitude ca 250 m.

13. Vlaherna (village), distr. Arta, 15—16 August 1985 — reeds and rushes along fields and orchards on the bank of the river Arachthos, about 0.5 km SW of the village, altitude 20 m.
14. Kampi (village), distr. Arta, 18 August 1985 — thickets and stands of Giant reed (*Arundo donax*) between fields on the bank of the river Louros, altitude 20 m.
15. Filippiada (town), distr. Preveza, 17—18 August 1985 — solitary farmsteads, thickets and stands of Giant reed on the outskirts of the town, altitude 20 m.
16. Michalitsi (village), distr. Preveza, 20 July 1985 — stands of Giant reed and thickets along the pastures and fields about 2 km W of the village, at sea level.
17. Kato Despotiko (village), distr. Preveza, 4 July 1989 — mown wheat fields (*Pitymys atticus*) and a plane grove along the stream (*A. flavicollis*) about 1 km W of the village, altitude ca 300 m.
18. Mesopotamo (village), distr. Preveza, 3 July 1989 — high herbaceous vegetation along a water canal on the east outskirts of the village, at sea level.
19. Asproklisi (village), distr. Thesprotia, 2 July 1989 — thickets along a lucerne field on the outkirts of the village, altitude 20 m.

Results

In the following survey the distribution and habitats of the individual species are evaluated. Number of specimens collected in the individual localities is given in the section "Material". Section "Observations" contains results of the field observations made by the first (T. S.) or by the second author (V. V.). They refer either to live or dead (mostly road casualities) specimens which have not been collected for various reasons. All these localities are given in the map (Fig. 1).

1. ***Erinaceus concolor*** Martin, 1838

Observations: Karies, distr. Ioannina, altitude 580 m — 24 Sept. 1988 (V. V.); Klimatia, distr. Ioannina, altitude 450 m — 24 April 1989 (T. S.); 2 km NW of Lefkothea, distr. Ioannina, altitude 380 m — 4 July 1989 (V. V.); near Metsovo, distr. Ioannina, altitude ca 1200 m — summer 1987 or 1988 (T. S.); 3 km E of Episkopito, distr. Ioannina, altitude 500 m — 4 July 1989 (V. V.); 2 km W of Avgo, distr. Ioannina, altitude 500 m — 4 July 1989 (V. V.); 2 km N of Petra, distr. Preveza, altitude 30 m — 20 July 1985 (T. S.); 3 km S of Margariti, distr. Thesprotia, altitude 150 m — 2 July 1989 (V. V.); Plataria, distr. Thesprotia, sea level — 2 July 1989 (V. V.); Nea Selefkia, distr. Thesprotia, altitude 20 m — 10 May 1986 (T. S.); Sagiada, distr. Thesprotia, sea level — 30 June 1987, 30 April 1988, 23 April 1989 (T. S.).

Note: Our localities together with the literary records — Korfu (Milller 1912, Niethammer 1962), Konitsa (Ondrias 1965) and two points given without any other documentation in the map published by Giagia & Ondrias (1980) — reveal that the hedgehog is widely distributed in Epeirus.

Although the altitudes are not given in the papers mentioned above, from the map it is evident that they range from sea level to ca 600 m (Konitsa). Ten in eleven of our localities are situated practically within an identical span — from sea level to 580 m. So far, only our record near Metsovo, at an altitude of ca 1200 m, reveals the presence of the hedgehog in the mountains. However, the hypsometrical distribution of the species in Epeirus needs further investigation.

2. ***Talpa stankovici*** V. & E. Martino, 1931
Material: Anatoli — 1 spec.

Identification: The systematics of the Balkan populations of the genus *Talpa* is rather complicated. The only revision has been performed by Petrov (1971, 1974) for Jugoslavian territory only. He distinguished three taxa there — *Talpa europaea*, *T. caeca hercegovinensis* and *T. romana stankovici*. Recently, the last form is suggested to be an independent species — *Talpa stankovici* by some authors (Capolongo 1986, Corti & Loy 1987, Filippucci et al. 1987). All three mole species were recorded also from Greece (Ondrias 1965, Vohralík & Sofianidou 1987).

Not long ago, Soldatović et al. (1986) studying the karyotypes of the moles from Epeirus (Igoumenitsa and island Korfu) revealed an new karyotype form and suggested that it represents an additional separate taxon. A morphological description of the material used was not given, the authors only remark that the moles "do not differ in size from other Balkan *T. romana*, although their rostrum size is somewhat larger".

Identification of our specimen (a young male) is based on the criteria proposed by Petrov (1971) for discrimination between three mole species in Jugoslavian Macedonia. Unfortunately, the damaged skull in our specimen makes it impossible to use one of the most important diagnostic characters, the condylobasal length. On the basis of relatively high values of the rostral breadth (9.1 mm), length of the hind foot (17.8 mm), greatest diameter of M^1 (3.35 mm) and greatest width of M^2 (2.60 mm) it is possible, with certainty, to exclude the small mole *T. caeca hercegovinensis*. It is difficult to discriminate between the two remaining, morphologically rather similar mole species by comparing the available measurements of our specimen with Petrov's material from Jugoslavian Macedonia, but the absence of the eye orifices in the skin of our mole reveals that it cannot belong to the species *T. europaea* (cf. Petrov 1971, 1974). Because the systematic position of the new karyotype form described by Soldatović et al. (1986) is still unclear, we designate our specimen as *Talpa stankovici*.

Note: In Epeirus, the species was recorded, so far, on the island Korfu (Niethammer 1962, Capolongo 1986), at Katara Pass in the Pindos Mts. (Felten & Storch 1965, Filippucci et al. 1987, Corti & Loy 1987) and at 10 km S of Ioannina, near the Ioannina lake (Niethammer 1974). Specimens studied by Soldatović et al. (1986) and reported by these authors as an independent species originated from the island Korfu and from the town Igoumenitsa lying on the sea shore, opposite to this island.

Hitherto records of the species remain, so far, confined to the northern half of Epeirus, northwards from the line connecting the island Korfu, the town Igoumenitsa, lowland around Ioannina lake and Katara Pass. Altitudes of the localities range from sea level (Korfu, Igoumenitsa) to 1700 m (Katara Pass).

3. ***Neomys anomalus*** Cabrera, 1907
Material: Perama — 1.

Identification: Identification of the water shrews of the genus *Neomys* is rather difficult in the south of the Balkans. Our specimen was determined by the method used by Vohralík & Sofianidou (1987) for discrimination between *Neomys anomalus* and *N. fodiens* from Greek Macedonia. By plotting the values of the length of tail

(58 mm) and of the length of hind foot (17.0 mm) in the two-dimensional graph given in the above mentioned paper (p. 331 — Fig. 5), the specimen (a male) was determined as *N. anomalus*. Also the general habitus of the specimen fits the mentioned species.

Note: Our specimen was collected together with *Crocidura suaveolens* and *Mus domesticus* in a dense growth of reeds, sedges and other herbaceous vegetation on the lake shore, about 10 m from the water.

4. ***Crocidura suaveolens*** (Pallas, 1811)
Material: Klidonia — 1, Perama — 12, Vlaherna — 6, Kampi — 2, Mesopotamo — 2, Asproklisi — 1.

Note: The Lesser white-toothed shrew is, without doubt, the most common shrew species of Epeirus. Our localities together with the literary records — Korfu (Niethammer 1962), Nikopolis and 10 km S of Ioannina, near the Ioannina lake (Niethammer 1974) indicate that the species is distributed in all lower situated parts of Epeirus. So far, it has not been found in the mountains. Altitudes of our localities range from sea level up to 480 m (Perama). Although the altitude of Niethammer's (l. c.) localities was not given, from the map it is evident that it cannot exceed ca 550 m.

5. ***Glis glis*** (Linnaeus, 1766)
Observations: Megalo Papiggo — a typical voice of the species was recorded on 24 Sept. 1988 in the valley about 1 km E of the village, altitude ca 1000 m (V. V.).

Note: So far, records of the species in Epeirus are confined to the island Korfu (Niethammer 1962) and to the mountains in the NE part of the region — environs of the towns Konitsa and Metsovon (Ondrias 1966) and our locality.

6. ***Mus abbotti*** Waterhouse, 1837
Material: Konitsa — 2, Perama — 4, Vlaherna — 3.

Identification: Two species of the genus *Mus* occur in the south of the Balkans — the long-tailed, dark-coloured and mostly indoor living *Mus domesticus* and a distinct, short-tailed, light-coloured, exclusively outdoor living species (for details see Vohralík & Sofianidou 1987). For the second species several different names have been used in the last years. Because the question of its correct designation remains still open, we use for the meantime the name *Mus abbotti*.

Note: Two specimens from the locality Limini (distr. Arta) reported by Ondrias (1966) as *Mus musculus spicilegus* were, till now, the only record of *Mus abbotti* from Epeirus. Our three localities extend the known area of distribution of the species in Epeirus considerably northwards. Altitudes of these four localities range from sea level (Limini) to 480 m (Konitsa and Perama).

7. ***Mus domesticus*** Rutty, 1772
Material: Perama — 2, Amphithea — 1, Vlaherna — 2, Filippiada — 2.

Identification: See *Mus abbotti*.

Note: From the island Korfu the species has already been reported by Miller (1912)

under the name *Mus musculus azoricus* and later by Niethammer (1962) as *Mus musculus domesticus.* So far, the only evidence of its presence in Epeirus mainland was a report by Winking et al. (1981) about the mice from the village Ammoudia (sea shore, south of Parga) which had the Robertsonian fusions of acrocentric chromosomes and which were successfully hybridized with the laboratory mouse. Although the morphological characteristics of the collected specimens were not given, both above mentioned facts suggest that they belonged to the species *Mus domesticus.*

Our four localities reveal the presence of the species also in the inland of Epeirus. Altitudes of the known localities range from sea level (Ammoudia) to 480 m (Perama and Amphithea).

We collected the species both in farmsteads (Filippiada) and outdoors in the distance 100—200 m (Perama, Filippiada) or even 500 m (Vlaherna) from the buildings.

8. ***Apodemus sylvaticus*** (Linnaeus, 1758)

Material: Konitsa — 1, Megalo Papiggo — 1, Perama — 3, Vlaherna — 4, Filippiada — 1, Michalitsi — 3.

Identification: It is sometimes impossible to distinguish reliably between *Apodemus sylvaticus* and *A. flavicollis* from the Balkans, particularly in the case of young specimens. Therefore, several of our specimens have been listed separately under the designation "*Apodemus sylv./fl.* (indet.)" — see Tab. 1. In our identification we used standard criteria such as body measurements and coloration, particularly the presence or absence of the neck collar (cf. Niethammer 1974).

Note: From the literature (Niethammer 1962, 1974, Peus 1964, Felten & Storch 1965, Ondrias 1966) it is evident that the Wood mouse belongs to the most frequently collected mammal species of Epeirus. We collected it mostly in the thickets, reeds and in gardens, we never found it in the wood. Altitudes of our localities range from sea level (Michalitsi) to ca 1000 m (Megalo Papiggo), but in the literature records are reported even from 17000 m (Katara Pass — Peus 1964, Felten & Storch 1965).

9. ***Apodemus flavicollis*** (Melchior, 1834)

Material: Loutra Isvorou — 1, Amarantos — 1, Agia Varvara — 2, Aidonochori — 3, Klidonia — 2, Kosmira — 3, Vouliasta — 1, Kato Despotiko — 2.

Identification: see *Apodemus sylvaticus.*

Note: Our catches and the literary records (Niethammer 1962, 1974, Peus 1964, Felten & Storch 1965, Ondrias 1966, etc.) suggest that the species is widely distributed in Epeirus. On the basis of our catches it appears to us that *A. flavicollis* is much more bound to the wood than *A. sylvaticus.* Whenever we collected in the wood, even in very narrow plane groves along the streams, the Yellow-necked mouse was present. Sometimes we also found it in hedgerows along the gardens (Kosmira) or in thickets along pastures (Aidonochori). Altitudes of our localities range from 250 to 1350 m (Loutra Isvorou), in the literature localities are reported from sea level — Korfu (Niethammer 1962), Arta (Niethammer 1974) to 1700 m — Katara Pass (Peus 1964, Felten & Storch 1965).

10. *Apodemus mystacinus* (Danford & Alston, 1877)
Material: Konitsa — 2, Megalo Papiggo — 7.
Observations: 2 km W of Petra, distr. Preveza, altitude 30 m — 1 spec., 20 July 1985 (T. S.).

Note: From the island Korfu the species has been reported already by Miller (1912) and later by Niethammer (1962). So far, the only known localities from the Epeirus mainland were Konitsa and Moni Stomiou lying close together in the northern mountainous part of the region (Ondrias 1966). Our finding from the locality Petra reveals the presence of the species also in lowlands of the southernmost part of Epeirus. Abundance of typical biotopes of this mouse, i. e., dry rocky slopes covered by a sparse vegetation in many parts of Epeirus suggest a much wider distribution of the species in the region.
Altitudes of localities range from 30 (Petra) to ca 1600 m (Moni Stomiou).

11. ***Rattus rattus*** (Linnaeus, 1758)
Material: Vouliasta — 3, Michalitsi — 1.

Observations: Amphithea, distr. Ioannina, altitude 480 m — 28 April 1984 (T. S.); Anatoli, distr. Ioannina, altitude 480 m — 2 May 1988 and 24 April 1989 (T. S.); Longades, distr. Ioannina, altitude 480 m — 6 May and 16 Sept. 1984 (T. S.); Ioannina, altitude 500 m — 20 July 1985 (V. V.); Vrosina, distr. Ioannina, altitude 250 m — 24 May 1989 (T. S.); Kalodiki (small colony belonging to the town Margariti), distr. Thesprotia — 6 May 1986 (T. S.); Ragio, distr. Thesprotia, sea level — 23 April 1989 (T. S.).

Note: From the island Korfu the species has been reported already by Miller (1912), later Niethammer (1962) collected it here in a number of sites spread out on the whole island. So far, the only locality from Epeirus mainland was Nikopolis lying on the sea shore near Preveza (Niethammer 1974). Our localities reveal the presence of the species also in central- and west parts of Epeirus, but it is most probable that the rat is of a common occurrence everywhere in lower altitudes of the region.

Altitudes of known localities range from sea level to 500 m (Ioannina).

12. ***Pitymys thomasi*** (Barrett-Hamilton, 1903)
Material: Kato Despotiko — 2.

Identification: The systematic position of the species is not clear. Two closely related forms (*Pitymys thomasi* and *P. atticus*) inhabiting southern Jugoslavia and Greece and differing by the karyotype are recognized. They are considered to be conspecific by some authors (e. g., Niethammer 1974, Živković et al. 1975, Giagia 1985) but by different authors (e. g., Kratochvíl 1971) they are treated as two independent species. Because the situation is still unclear and the karyotype of *atticus*-form is so far known only from southern Greece, we designate, for the meantime, the specimens from Epirus as *P. thomasi.*

Identification of our specimens has been based on M^3 which is simplex in its shape. Confusion with another species of the area possessing the simplex M^3, *Pitymys felteni*, can be excluded on the basis of the shape of the caudal part of this tooth (cf. Niethammer 1974, 1982).

Note: So far, ten localities of *P. thomasi* have been reported from Epeirus by Ondrias (1966) and Niethammer (1974, 1986). However, it is to be remarked here that some localities given in the paper by Ondrias (1966) have not been introduced in his map correctly. Namely the localities Sellades and Limini should be placed more eastwards, practically to the locality Kompoti. This inaccuracy has been taken over also to the map by Niethammer (1974).

Three additional localities are available from the paper by Hatzisarantos et al. (1962). The species is reported there as *Pitymys savii*. However, taking into account the evidently erroneous determination of the related species, *Pitymys subterraneus*, given in this paper (confusion with *Microtus guentheri* — for details see Ondrias 1965 and Vohralík & Sofianidou 1987), these data must be taken with caution.

Published localities reveal the presence of the species in the eastern half of Epeirus, from the lowland along Amvrakikos Kolpos (gulf) in the south to the town Konitsa near the Albanian border in the north. Our locality extends the known area of distribution of the species in Epeirus somewhat westwards, to the highland between rivers Acheron and Louros. Altitudes of the findings range from sea level (Sellades, Limini — Ondrias 1966, Nikopolis — Niethammer 1974) till 1700 m (Katara Pass — Niethammer 1986).

Our specimens were dug up from a colony found on the mown wheat field.

13. ***Microtus epiroticus*** Ondrias, 1966
Material: Perama — 20.

Note: Our material comes from the type locality from which the species has been described. We collected it there in a neglected garden overgrown by dense herbaceous vegetation — predominantly nettle (*Urtica dioica*) and bindweed (*Calystegia* sp.). Above all the bindweed stands appeared to be the most preferable biotope of this vole.

So far, only two other localities of the species are known from Epeirus — Metsovo at the Pindos Mts. (Ondrias 1966) and 10 km S of Ioannina, near Ioannina lake (Niethammer 1974).

14. ***Myocastor coypus*** (Molina, 1782)
Observations: Kalodiki (small colony belonging to the town Margariti), distr. Thesprotia, altitude ca 200 m — 5 May 1986, 1 May 1988, 23 April 1989 (T. S.).

Note: The species originates from South America. From the end of the 10th century it has been locally acclimatized in Europe. At Kalodiki we repeatedly observed several specimens freely inhabiting three marshy lakes.

Concluding remarks

In conclusion we have to state that the contemporary level of the knowledge of small mammal fauna of Epeirus is far from beeing satisfactory. With the exception of the island Korfu and the close environs of Ioannina lake and Katara Pass the region has been only minimally explored, so far. In future, it will be necessary to devote attention above all to the big mountain massifs like Tymphi-, Smolikas- or Grammos Mts. where some small mammal species new either for Epeirus (e. g., *Sorex araneus*,

Neomys fodiens and *Microtus nivalis*) or even for the fauna of Greece (*Dinaromys bogdanovi*), most probably will be found. Also the systematics of some groups (genera *Talpa* and *Pitymys*) call for revision. Therefore, the present state makes it impossible, till now, to perform a more detailed zoogeographical evaluation of small mammal fauna of the region.

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Zusammenfassung

In 19 Lokalitäten der Provinz Epeirus (NW Griechenland) wurden in den Jahren 1985—1989 107 Exemplare von Kleinsäugern gesammelt. Weitere faunistische Angaben wurden mittels Freilandbeobachtung erhoben. Neue Verbreitungsangaben über 14 Säugetierarten werden mitgeteilt; davon ist die Sumpfspitzmaus (*Neomys anomalus*) ein Neunachweis für Epeirus. Einige Fragen der Verbreitung sowie der ökologischen Ansprüche der einzelnen Säugetierarten werden diskutiert.

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