

Records of the grey-bellied shrew opossum, *Caenolestes caniventer*
and tate's shrew opossum, *Caenolestes tatei* (Caenolestidae, Marsupialia),
from Ecuadorian montane forests

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On the 9th of September 1983 a pregnant female of *Caenolestes caniventer* was taken at 3050 m on the montane forest of the Rio Mazan Ecological Reserve, some 20 km south-west of Cuenca (2°53'S, 78°59'W), Azuay Province, southern Ecuador (Fig. 1). The snap trap had been placed on the ground in shrubby secondary forest, consisting of stands of *Chusquea* spp. (Graminae: Bambusoideae), *Salvia quitensis* (Labiatae) and *Miconia* spp. (Melastomataceae) bushes, interspersed with *Ocotea* (Lauraceae) trees. There was poor ground cover and the canopy was sparse. Measurements of the specimen were: weight, 37.5 g; head & body, 117 mm; tail, 115 mm; hind foot (s.u.), 25 mm; ear, 16 mm. The specimen (BMNH No. 84.383) was the fourth *C. caniventer* in the collection of the British Museum of Natural History (BMNH). Foetuses (1 + 1) were preserved in spirit.

Three days later a specimen of *Caenolestes tatei* was taken nearby in the same habitat type. The snap-trap had been positioned some two meters above the ground in a well-used run on a broad moss-covered branch overhanging a river bank. When found the specimen was very badly mauled and only the skull was kept. It (BMNH No. 84.384) is a new species for the BMNH collections.

Subsequent trapping in the Rio Mazan valley in 1986 and 1987 caught 36 animals of four species (*Akodon mollis*, *Cryptotis montivaga*, *Oryzomys paramorum*, *Thomasomys aureum*) in 1764 trap nights. No more Caenolestids were trapped. Both specimens had been taken on a bait of rolled oats and peanut butter. Kirsch and Waller (1979), who caught 25 *Caenolestes obscurus* in 1657 trap nights, reported fresh meat to be a most effective bait. This was tried without success at Mazan. The reasons for this failure to trap additional specimens is unclear. Secondary forest was re-trapped extensively and primary forest was subject to intense trapping. Both habitats correspond to those described for Caenolestids by other workers (Maria 1919; Tate 1931; Collins 1973; Kirsch and Waller 1979; Marshall 1982).

4178 trap nights in *Calamagrostis/Andropogon*-dominated upland grasslands (« paramo ») and in *Polylepis* (Rosaceae) forests (« quenoa »), at altitudes between 3300 and 4000 m, yielded 11 species of small mammals. None were Caenolestids. While this gives limited support for the contention (Hunsaker 1972; MacDonald 1984) that *C. caniventer* and *C. tatei* are montane forest specialists, it is still unclear why *C. fuliginosus* was not taken in the higher altitude traps. The latter species is known to inhabit paramo and quenoa, and has been recorded from northern Ecuador through to north-western Peru (Tate 1931; Barckley

and Whittaker 1984 ; and personal observations of specimens in the BMNH collections). It is possible that competition is structuring the composition of these high-altitude mammal communities. Caenolestids are reported to be largely insectivorous (Gregory 1922 ; Kirsch and Waller 1979 ; Richardson, Bowden and Myers 1987), and cursory examination of stomach contents of the Mazan specimens showed only chitinous remains and no bone fragments or feathers. Though the shrew, *Cryptotis montivaga*, does occur at Mazan, it is much more common at higher altitudes, where it appears to be locally abundant (Barnett, in prep.). In consequence, *C. fuliginosus* may be absent or at low numbers at high altitudes due to competition with this insectivore. In montane forests the situation may be reversed, with *Caenolestes* displacing *Cryptotis* (see Barnett, in prep.). In addition, it should be noted that members of the rodent genus *Akodon* are also often highly insectivorous (Pizzimenti and De Salle 1980 ; Glantz 1982). Though *A. mollis* was trapped at Mazan, it was most abundant at higher altitudes, where it comprised between 59 % and 92 % of the catch.

Anthony (1921) described *C. caniventer* from a collection that he had made at 1630 m at El Chiral, El Oro Province, Ecuador. *C. tatei* was named by Anthony (1923) from a specimen collected by G.H.H. Tate from 2316 m at Molleturo, Azuay Province. Several authors (Kirsch 1977 ; Marshall 1982 ; Nowak and Paradiso 1983) have said each of these species is known only from the type locality. This is in error. Anthony (1923) mentions that *C. caniventer* had been caught with *C. tatei* at Molleturo. Also, as pointed out by Paula Jenkins (pers. comm.), material in the BMNH collections shows *C. caniventer* to have been recorded from at least two additional localities. In July 1914 W. Goodfellow collected two caenolestids (BMNH Nos. 15.11.25.5 and 15.11.25.6, later identified as *C. caniventer*) from 2200 m at Juelita in western Ecuador. Unfortunately, the gazetteer of Ecuador published by the United States Department of the Interior, Office of Geography (USDI OG, 1957) does not contain this name nor any of its reasonable homonyms. In 1938 C.S. Webb collected another specimen of *C. caniventer* at 1750 m on the Rio Saloya. This is near Mt. Cayambe in the north of Ecuador (USDI OG, 1957) — so the species would appear to be a widely distributed one.

Molleturo is the nearest village to Mazan. It is the only name of its kind listed in the USBGN gazetteer. The present record of *C. tatei* is therefore likely to be very close to Tate's original locality. This species should, perhaps, be considered as endemic to the Cajas Plateau of which the Molleturo/Mazan region forms the lower eastern part.

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Quelques données nouvelles sur la distribution des rongeurs fouisseurs des Pyrénées d'Aragon (Espagne)

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L'étude des mammifères des Pyrénées a été faite par plusieurs auteurs français et espagnols ; du côté espagnol les principales contributions sont celles de Vericad (1970), Gosalbez *et al.* (1987) et Gosalbez et Claramunt (1982), parmi d'autres. Ces travaux s'occupent surtout des Pyrénées Orientales et Occidentales. Par contre, les Pyrénées Centrales comptent peu d'études. Pour les rongeurs, les seuls travaux sont, outre les travaux généraux qui viennent d'être cités, ceux de Herrero *et al.* (1987) sur la colonisation du milieu alpin par les marmottes. Pourtant la

région est très intéressante, car sept espèces de *Microtus*, dont trois appartenant au sous-genre *Pitymys*, y habitent en sympatrie. Nous nous proposons donc, dans cette note, d'apporter quelques informations nouvelles sur les Microtinés pyrénéens.

Pendant la deuxième moitié de 1989 et la première de 1990 nous avons fait environ 120 jours de piégeage dans les Pyrénées d'Aragon, pour obtenir des échantillons de micromammifères. La région étudiée et les localités échantillonnées sont illustrées dans la figure 1.

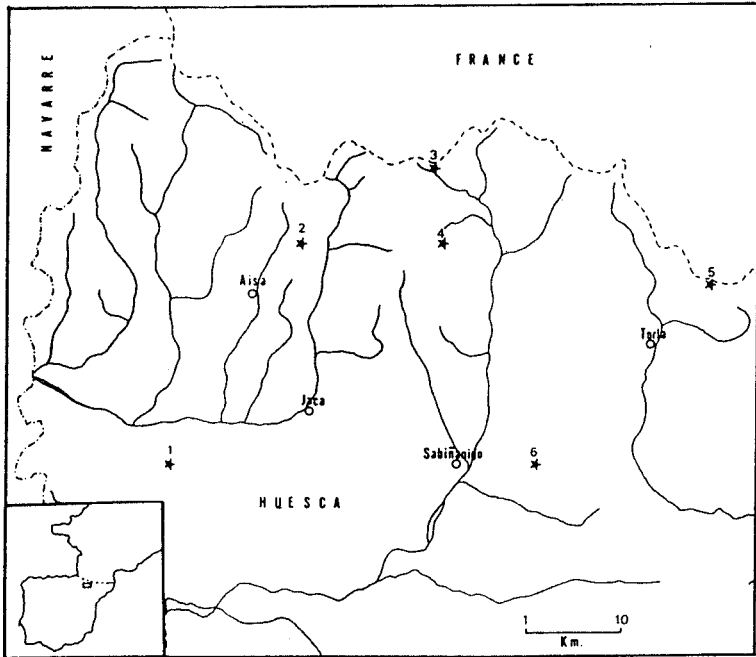


Fig. 1. — La région étudiée. 1. San Juan de la Peña ; 2. Los Lecherines ; 3. El Portalet ; 4. Izas ; 5. Brèche de Roland ; 6. Yebra de Basa.

Après avoir essayé différents pièges, on a choisi un piège de type Sherman avec quelques modifications. Le piège a été doublé au dedans de planches de liège, a fin d'éviter le contact de l'animal avec le métal et d'améliorer l'isolation. De cette façon le taux des captures s'accroît, et même des espèces non capturées auparavant tombent dans le piège. Ce taux atteint de valeurs de 50 %, plutôt élevés. Seuls les deux ou trois premiers animaux capturés dans chaque localité et de chaque espèce ont été retenus pour une détermination précise. Les autres ont été libérés après détermination.

Tous les exemplaires capturés sont des rongeurs appartenant à la famille des *Arvicolidae*: On a trouvé les espèces suivantes : *Arvicola terrestris*, *Microtus arvalis*, *Microtus pyrenaicus*, *Microtus duodecimcostatus*, *Microtus lusitanicus*, *Microtus nivalis*.

Bien que toutes les espèces soient connues dans la région pyrénéenne, quelques captures mériteraient des commentaires.