Hystrix, (n.s.) 8 (1-2) **(1996):** 17-21

THE RECENT MAMMAL FAUNA OF AUSTRIA

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ABSTRACT – The recent mammal fauna of Austria comprises 98 wild species. Further, there are roaming domestic cats but no feral populations of any domestic mammal.

***Key** words:* Mammals, Austria, Status

INTRODUCTION

Although Austria is a small country, its mammalian species richness is surprisingly high. This has two main reasons: the geomorphic and vegetational diversity - ranging from the high mountains of the Alps to the western fringe of the forest steppe belt in the Pannonian lowlands - and the complex pleistocene/holocene faunal history. Like most of Central Europe, large parts of the country were covered by ice during the last glaciations. But in the East and South East remained unglaciated refugia and others to the South were quite near. Among the relics of this period are species like *Rupicapra rupicapra, Lepus timidus* and *Marmota matmota,* also *Sicista betulina* and *Microtus oeconomus.*

The period we relate to here is the present; the latest 200 years from now. Earlier than that, some late holocene species became extinct or were extirpated: *Myotis dasycneme, Bos primigenius, Bison bonasus* and *Alces* ***alces.*** Of these four species only the moose recolonized Austria on its own. Some others made their appearance as camp-followers of man. The earliest record of *Mus musculus* dates back to the Bronze Age in Lower Austria (Bauer and Wolff, 1985) and *Rattus rattus* appears in archeozoological complexes from Roman centres in Carinthia and Upper Austria (Wolff et al., 1980). In spite of isolated earlier records from neighbouring countries, *Rattus norvegicus* is still known only from about 1750, and free living *Oryctolagus cuniculus* are recorded for the first time in 1779 in Burgenland (Wolff et al., 1980; Bauer and Spitzenberger, 1989a).

THE FAUNA

Austria's recent mammal fauna comprises 98 species (Tab.1).

None of them is endemic.

The following 3 species are extinct:

Canis lupus, last permanently recorded in Styria in 1879-82; now occasional vagrants (the latest **one** 1996 in Upper Austria).

Felis silvestris, last remnants of autochthonous populations surviving in Lower Austria into beginning, in Styria and Carinthia into middle of 20th

century; at present occasional vagrants from Slovakia and Moravia.

Sicista subtilis, an isolated population east of Lake Neusiedl/Burgenland known from a total of 6 specimens; the very localized habitats grossly altered by agricultural intensivation, the animal in spite of intensive search not recorded after 1960.

4 species were introduced intentionally, two more escaped from fur farms:

Ovis aries (mouflon, as game animal), since 1753;

Cervus dama, largely restricted to deer parks, only in Salzburg a small free ranging population;

Cervus nippon (as game animal), since 1907 in Lower Austria north of the Danube;

Castor canadensis, 1953 and later in violation of all reintroduction rules in connection with the reintroduction of *Castor fiber* into the Danube river system in Lower Austria and Vienna;

Mustela vison has been recorded as an escape from a mink farm in northern Lower Austria, but has not yet formed feral populations.

Myocastor coypus: escapes established in local colonies.

4 species were reintroduced:

Capra ibex: the last autochthonous Austrian Ibex were shot 1700-1720 in Tyrol. Introductions since 1924 (re)established the species in many places from Vorarlberg to Styria.

Castor fiber: last recorded near Salzburg in 1869. Reintroductions starting in 1976 were very successful and reestablished the species from Salzach and Inn down the Danube to the March/Morava river on the Slovak border (Stüber, 1988).

Felis lynx: the autochthonous population became extinct approximately 100 years ago. Reintroductions beginning 1977 proved successful (Festetics, 1988).

Ursus arctos went extinct during the second half of the 19th century, single individuals immigrating since 1920 and in growing frequency since 1960 from Slovenia into Carinthia and sometimes further. One such immigrant migrated to the Otscher area in Lower Austria and settled there, inducing the WWF to a back up introduction programme beginning 1989. Immigration from Slovenia continues, some 20 bears wander at present between Carinthia, Styria, Lower and Upper Austria.

4 species colonized (or recolonized) Austria on their own:

Ondatra zibethicus: from the first European population established near Prague/Bohemia in 1905, Austria received its first immigrants in 1914. The distribution of the species now is countrywide.

Nyctereutes procyonoides: on its westward expansion from introductions into the western parts of the former Soviet Union, the raccoon dog arrived in Austria in 1954 (Bauer, 1986). The species seems locally established in Lower Austria, but is otherwise still a rare vagrant in Upper and Lower Austria and northern Burgenland.

Alces alces: after extinction of an autochthonous population about 1000 P.D. the gradual post-war buildup of the Polish population and the colonization of southern Bohemia led to visits from stray immigrant specimens (mostly young

Table 1 - Recent mammals of Austria. Nomenclature following Wilson and Reeder (1993).

INSECTIVORA

1. *Erinaceus europaeus*
2. *Erinaceus concolor*
4. *Sorex alpinus*
5. *Sorex minutus*
6. *Sorex coronatus*
7. *Neomys anomalus*
8. *Neomys fodiens*
9. *Crocidura suaveolens*
10. *Crocidura leucodon*
11. *Crocidura russula*
12. *Talpa europaea*

CHIROPTERA

13. *Rhinolophus ferrumequinum*
14. *Rhinolophus hipposideros*
15. *Myotis blythi*
16. *Myotis myotis*
17. *Myotis bechsteini*
18. *Myotis nattereri*
19. *Myotis emarginatus*
20. *Myotis mystacinus*
21. *Myotis brandti*
22. *Myotis daubentoni*
23. *Myotis capaccinii*
24. *Pipistrellus pipistrellus*
25. *Pipistrellus nathusii*
26. *Pipistrellus kuhli*
27. *Pipistrellus savii*
28. *Nyctalus leisleri*
29. *Nyctalus noctula*
30. *Eptesicus nilssoni*
31. *Eptesicus serotinus*
32. *Vespertilio murinus*
33. *Barbastella barbastellus*
34. *Plecotus auritus*
35. *Plecotus austriacus*
36. *Miniopterus schreibersi*

LAGOMORPHA

31. *Lepus europaeus*
38. *Lepus timidus*
39. *Oryctolagus cuniculus*

RODENTIA

40. *Sciurus vulgaris*
41. *Marmota marmota*
42. *Spermophilus citellus*
43. *Castor fiber*
44. *Castor canadensis*
45. *Dryomys nitedula*
46. *Eliomys quercinus*
41. *Myoxus glis*
48. *Muscardinus avellanarius*
49. *Sicista subtilis*
50. *Sicista betulina*
51. *Cricetus cricetus*
52. *Clethrionomys glareolus*
53. *Ondatra zibethicus*
54. *Arvicola terrestris*
55. *Microtus subterraneus*
56. *Microtus multiplex*
57. *Microtus oeconomus*
58. *Microtus arvalis*
59. *Microtus agrestis*
60. *Microtus nivalis*
61. *Micromys minutus*
62. *Apodemus flavicollis*
63. *Apodemus alpicola*
64. *Apodemus sylvaticus*
65. *Apodemus microps*
66. *Apodemus agrarius*
67. *Rattus rattus*
68. *Rattus norvegicus*
68. *Mus domesticus*
70. *Mus musculus*
71. *Mus spicilegus*
12. *Myocastor coypus*

CARNIVORA

13. *Canis lupus*
74. *Canis aureus*
75. *Vulpes vulpes*
16. *Nyctereutes procyonoïdes*
77. *Ursus arctos*
78. *Procyon lotor*
19. *Martes martes*
80. *Martes foina*
81. *Mustela erminea*
82. *Mustela nivalis*
83. *Musteln vison*
84. *Mustela putorius*
85. *Mustela eversmanni*
86. *Meles meles*
87. *Lutra lutra*
88. *Felis silvestris*
89. *Lynx lynx*

ARTIODACTYLA

90. Sus *scrofa*
91. *Cervus dama*
92. *Cervus nippon*
93. *Cervus elaphus*
94. *Alces alces*
95. *Capreolus capreolus*
96. *Rupicapra rupicapra*
91. *Capra ibex*
98. *Ovis aries*

males) since 1966. Moose appeared in Salzburg, Upper and Lower Austria and are at present recorded annually in the northernmost part of Waldviertel/Lower Austria.

Procyon lotor: established in expanding feral populations in Germany, in Austria free ranging raccoons have been recorded since 1974, but until now, there is no indication of an established population (Aubrecht, 1995).

Canis aureus: the near complete extirpation of the wolf during the last 30 years in most parts of its Balkan Peninsula range made possible for the jackal an unexpected population increase and range expansion. The first specimen was shot in Styria in 1989. Until now 7 specimens (all male) have been recorded north- and westward to Lower and Upper Austria and Salzburg (Hoi-Leitner and Kraus, 1989; Bauer and Suchentrunk, 1995).

One species, *Myotis capaccinii*, has been recorded once as a vagrant outside its normal range in southern Carinthia (nearest colonies in the Slovenian Carst) (Spitzenberger and Mayer, 1988).

SOURCES

The prominent lepidopterologist H. Rebel provided a first prodromus for Austria's mammals in 1933. This was updated in checklists by Wettstein, 1955 (supplemented by Bauer and Wettstein, 1965) and Bauer and Spitzenberger, 1989a.

A first complete mammal fauna is in preparation in the mammalogy section of the Naturhistorische Museum Wien. Preparatory to this work, Spitzenberger in 1978 started a series of monographic papers "Mammalia austriaca". The 22 contributions up till 1997 (17 by Spitzenberger) treat a total of 32 species.

Thirteen more were covered by short papers in a volume "Artenschutz in Osterreich' (Spitzenberger ed., 1988), that documents the conservation situation in Austria and provides an overview of Austria's endangered birds and mammals. Conservation concern further led to the production of a "Red list of endangered Mammal species in Austria" (Bauer and Spitzenberger, 1983, reprinted 1984, new editions 1989 and 1994).

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