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two. Because the support of body weight depends on skeletal and muscular strength and hence on bone and muscle cross sectional areas, larger animals show corresponding adaptations in their locomotor apparatus to support their body weight, while smaller animals generally have a reduced postural problem. On the other hand, heat production is proportional to body volume, whereas heat loss is proportional to body surface. Therefore, small endothermic animals suffer from a relatively higher heat loss compared to heat production. The skeletal musculature of mammals is part of the locomotor apparatus as well as involved in heat production. Therefore, adaptations to different demands may be reflected by differences in the composition of the three main muscle fibre types: type I fibres (high oxidative capacity, slow, fatigue resistant), type IIB fibres (low oxidative capacity, contract and fatigue fast), and type IIA fibres (intermediate). We investigated the distribution of these fibre types over the whole cross section of the perivertebral musculature along the lumbar spine of several mammals covering a body mass range from 5 g to 100 kg. Our results confirm the few previous observations on limb muscles. In general, the type I fibre proportion of a given muscle region was higher in larger mammals. Therefore, the muscles are well suited for supporting the high body weight by static stabilisation. In contrast, very small mammals showed a high proportion of intermediate type IIA fibres, which have a relatively high ATP turnover and short contraction times, well suited for shivering and thus for heat production. However, the fibre type composition of the lumbar muscles also depended on the locomotor behaviour of the respective animal, possible additional functions of a given muscle (e.g., in ventilation) as well as on the existence of additional stabilising mechanisms (e.g., tendons).

Impact of artificial feeding on free-ranging Wild boar (*Sus scrofa*) in Europe – a stomach content analysis

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Since the 1970s Wild boar harvest rates have increased more than tenfold in many European countries, indicating a remarkable increase of both geographic distribution range and population density. Nowadays the Wild boar can be considered the most numerous large mammal species in Europe. Although a clear and convincing analysis of the causes of this trend is still lacking, artificial feeding carried out by hunters is one factor thought to be involved.
Although the influence of feeding on population dynamics of this species has not been quantified to date, feeding itself in the diet of Wild boar has been quantified by using a volumetric analysis of stomach content components of harvested individuals.

However, this approach does not take into account the digestible energy of different components, which might lead to an underestimation of the effect of energy rich components on body condition and reproductive success. To fill this gap we analysed the digestible energy of the following stomach content components: mast (acorns, beech nuts), dry grain maize fed by hunters, green plant matter, crops and soil matter from rooting activities. We analysed 894 Wild boar stomachs from Luxemburg (harvested 2003-2005) and 698 from West Germany (Palatinate Forest) harvested in 2002 and 2003. Grain maize provided 15-16 MJ digestible energy per kg dry mass, followed by mast (12-13 MJ), and green plant matter, crops or soil matter providing (7 - 11 MJ). Maize and mast thus represent high-energy food categories, whereas green plant matter contains relatively little energy.
The mean percent volume of artificially fed grain maize found in Wild boar stomachs varied between 10% and 50% of a mean stomach content weight of 1,5 kg. This quantity would cover between 17% and 87% of the daily resting energy demand of a 70 kg (live weight) Wild boar. We conclude that artificial energy input through supplementary feeding seems likely to increase body condition significantly and thereby contribute to a population increase.

Ecology of small mammals in the arid Andean foothills of Mendoza, Argentina

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The use of vegetation patches and the influence by openess of vegetation on small mammals in the arid Andean foothills Mendoza's, Argentina was studied. The species showed relatively high habitat specialisation. Microhabitats are different between the dominant species, the rodents, *Eligmodontia moreni* and *Calomys musculinus*. *Eligmodontia moreni* was favored by the open vegetation structure, while the species *Calomys musculinus, Akodon molinae* and *Phyllotis xanthopygus* prefered the habitat with dense vegetation, which was shown by an increasing abundance of these species. This affinity for vegetation diversification suggests that the habitat structure is an