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THE GENERIC NAME OF THE HOUSE-RATS.

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The generic name *Mus* is currently applied to both house-mice and house-rats, as well as to an assemblage of rat-like species comprising perhaps the greater part of the sub-family *Murinae*. This arrangement involves many inconsistencies, the most glaring of which is probably the close association of the house-mice with the rats. The two groups are in fact generically distinct, the rats retaining a primitive type of dentition, in which the anterior molar shows no tendency to assume the chief function of the toothrow, and the posterior molar remains a large, functionally important tooth, while the house-mice and their allies have a highly specialized toothrow in which the first molar is of much more mechanical importance than the other teeth combined, and the third tooth is greatly reduced. The incisors in the house-mouse group are also noticeably specialized. With the house-mice and their European and Central-Asiatic allies must be associated the Indian and African group commonly known as *Leggada*, the main peculiarities of which are precisely the same. In its most extreme development *Leggada* differs from the house-mice in the more pronounced reduction of the hinder molar and in the further enlargement of  $m^1$  by the addition of a supplemental anterior transverse enamel ridge; but on taking into consideration the numerous recently described species it seems impracticable to retain the two groups as distinct genera.

The type of the Linnæan genus *Mus* is by tautonymy *musculus*, since this is the only included species "possessing the generic name as \* \* \* [a] synonym."\* This name must therefore be restricted to the house-mouse-*Leggada* group.

\* International Code, article 30.

In determining the generic name of the rats, as typified by the species *norvegicus* and *rattus*, and without, for the present, attempting to fix any exact limit for the group, it is necessary to consider the genera *Acanthomys* Lesson, *Euchætomys* Fitzinger, and *Epimys* Trouessart, each of which as originally defined contained species related to the house-rat.\*

*Acanthomys* was proposed† as a subgenus of *Mus* to contain the species *retifer*, *alexandrinus*, *perchal*, *platythrix* and *hispidus*.† No type was designated nor has one been selected by a subsequent reviser. As the name has, however, generally been placed in the synonymy of *Acomys* L. Geoffroy, it may be allowed to remain there, with the species *hispidus* as type.

Fitzinger‡ united under the generic name *Euchætomys* the following species: *palmarum*, *noraræ*, *retifer*, *perchal*, *kok*, *hardwickii*, *rufescens*, *elliotti*, *lepidus*, *vittatus*, *pumilio*, *parduleus*, *zebra* and *donovani*. No type was designated and none has been selected. Since the description indicates that the group was primarily intended to contain the coarse-furred species, as distinguished from the true rats (*Rattus*) on the one hand and the spiny rats (*Acomys*) on the other, I have no hesitation in referring it to the synonymy of *Nesokia* Gray, 1842, and in choosing the species *hardwickii* as the type.

In 1881 Trouessart§ formed the subgenus *Epimys* for the true rats including both *rattus* and *norvegicus*. He designated no type and none has since been selected. As this group exactly coincides with the genus now under consideration the name should be adopted for the rats congeneric with *Mus rattus* Linnaeus, the species which I choose as type.

The synonymy and characters of the genera *Epimys* and *Mus* are briefly as follows:

#### GENUS EPIMYS Trouessart.

1867. *Rattus* Fitzinger, Sitzungsber. Math.-Naturwiss. Cl. k. Akad. Wissensch. Wien, LVI, pt. II, p. 63 (type by tautonymy *Rattus domesticus* Fitzinger = *Mus rattus* Linnaeus) not *Rattus* Donovan, 1827.

\* *Rattus* Fitzinger, Sitzungsber. Math.-Naturwiss. Cl. k. Akad. Wissensch. Wien, LVI, pt. II, p. 63, type by tautonymy *Mus rattus* is antedated by *Rattus* Donovan, 1827, applied to a South African striped rat. *Rattus* Frisch, 1775, has no status in nomenclature.

† Nouv. Tabl. Règne Anim. Mamm. p. 135. 1842.

‡ Sitzungsber. Math.-Naturwiss. Cl. k. Akad. Wissensch. Wien, LVI, pt. II, p. 73. 1867.

§ Bull. Soc. d'Études Sci. d'Angers, X, p. 117. 1881.

1881. *Epimys* Trouessart, Bull. Soc. d'Etudes Sci. d'Angers, X, p. 117 (type by subsequent designation *Mus rattus* Linnæus).

External form, skull and teeth with no special modifications; molars slightly graduated in size from first to third, the anterior tooth not tending to assume the main function of the toothrow, the posterior tooth not tending to disappear, enamel folding of upper molars directly referable to a simple 9-cusped pattern and its reductions, the outer margin of  $m^1$  and  $m^2$  never with more than three cusps, the inner margin of same teeth never with more than 2 cusps;  $m^1$  usually with 5 roots, its first lamina not distorted by the backward displacement of antero-internal tubercle; upper incisor moderately compressed, set at such an angle that its outer side is worn smoothly away by action of lower tooth.

#### GENUS MUS Linnæus.

1758. *Mus* Linnæus, Syst. Nat., I, 10th ed., p. 59 (*musculus*). Part.

1814. *Musculus* Rafinesque, Précis des Découv. Somnologiques, p. 13 (substitute for *Mus*).

1837. *Leggada* Gray, Charlesworth's Mag. Nat. Hist., I, p. 586. November, 1837 (*L. booduga* Gray and *Mus platythrix* Bennett).

1844. *Drymomys* Tschudi, Fauna Peruana, p. 178 (*D. parvulus* Tschudi = *Mus musculus* Linnæus. See Palmer, Index Gen. Mamm., p. 246).

1876. *Nannomys* Peters, Monatsber. k. preuss. Akad. Wissensch. Berlin, p. 480, August, 1876 (*N. setulosus* Peters).

1881. *Aeromys* Trouessart, Bull. Soc. d'Etudes Sci. d'Angers, X, p. 133 (synonym of *Drymomys* wrongly attributed to Wagner. See Palmer, Index Gen. Mamm., p. 246).

1896. *Pseudoconomys* Rhoads, Proc. Acad. Nat. Sci., Philadelphia, p. 531, December 8, 1896. *Mus* (*Pseudoconomys*) *proconodon* Rhoads.

1900. *Dryomys* Philippi, An. Mus. Nac. de Chile, XIV, p. 20 (modification of *Drymomys* Tschudi).

In general like *Epimys* but mechanical scheme of molars modified by the elongation of crown of anterior tooth until it forms the main portion of toothrow;  $m^1$  with three roots, its crown decidedly longer than those of the two succeeding teeth combined, its first lamina much distorted by displacement backward of inner tubercle into line with outer and middle tubercles of second lamina;  $m^3$  small and tending to disappear, in some species without trace of first lamina; upper incisor much compressed, set at such an angle that a subapical notch is normally cut in its outer side by action of lower tooth.

