

## New Names for Arvicolid Homonyms

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Preparing a monograph of the fossil *Arvicolidae*, it seemed necessary to compile the synonymy of the recent and fossil forms belonging or referred to this family.

Among the names (exceeding 1100, without names by error and of superspecific categories) hitherto 39 proved nomenclatural and 24 taxonomical homonyms.

Four of these 73 homonyms cover valid taxonomic units and must be replaced by new names. These are :

1. *Arvicola (Evotomys) intermedius* Newton 1881 (nec *Arvicola intermedius* Bonaparte 1845), replaced here by *Mimomys milleri* n. nom. (Type : right mandibular ramus with teeth ; Upper Freshwater Bed of West Runton, Norfolk, Late Lower Pleistocene).

2. *Arvicola austerus minor* Merriam 1888 (nec *Arvicola spelaeus minor* Münster 1833, nec *Arvicola amphibius* var. *minor* de Sélys Longchamps 1845), replaced by *Microtus (Pedomys) ochrogaster merriami* n. nom. (Type : "from Bottineau, at base of Turtle Mts., Bottineau Co., North Dakota").

3. *Clethrionomys hintoni* Kormos 1934 (nec *Evotomys rutilus hintoni* Vinogradov 1933), replaced by *Clethrionomys hintonianus* n. nom. (Type : left mandibular ramus with  $M_1 - M_2$ , Nagyharsányhegy, S. Hungary, Late Lower Pleistocene).

4. *Clethrionomys solus* Kretzoi 1956 (nec *Clethrionomys gapperi solus* Hall et Cockrum 1952), replaced by *Clethrionomys intrans* n. nom. (Type :  $M_1$ , Vilány, Lol. 5. S. Hungary, Basal Pleistocene).

12 further nomenclatural synonyms covering valid systematic units, had been changed by subsequent authors. These are the followings :

1. *Arvicola riparia* Yarrell 1832 (nec *Arvicola riparius* Ord 1825), replaced by *Evotomys hercynicus britannicus* Miller 1900.

2. *Arvicola (Microtus) selysii* Gerbe 1852 (nec *Arvicola selysii* Bonaparte 1845), replaced by *Pitymys druentium* Miller 1911.

3. *Arvicola ambiguus* Hensel 1855 (nec *Arvicola ambiguus* Pomel 1852), replaced by *Arvicola (Tyrrhenicola) henseli* Major 1905.

4. *Arvicola rufocanus* var. *kamtschaticus* Lataste 1884 (nec *Arvicola kamtschaticus* Poliakov 1881), replaced by *Evotomys (Craseomys) latastei* Allen 1903.

5. *Microtus californicus neglectus* Kellogg 1918 (nec *Microtus agrestis neglectus* Ognev 1913), replaced by *Microtus californicus sanctidiegi* Kellogg 1922.

6. *Microtus (Arbusticola) rubelianus intermedius* Shidlovsky 1919 [nec *Microtus (Lagurus) intermedius* Taylor 1911], replaced by *Pitymys majori suramensis* Heptner 1948.

7. *Chionomys socialis satunini* Ognev 1924 [nec *Microtus (Chionomys) nivalis satunini* Shidlovsky 1919], replaced by *Microtus socialis binominatus* Ellermann 1941.

8. *Microtus mordax angustus* Hall 1931 (nec *Microtus angustus* Thomas 1908), replaced by *Microtus mordax halli* Hayman et Holt 1941.

9. *Microtus (Microtus) colchicus* Argyropulo 1932 [nec *Microtus (Arbusticola) rubelianus colchicus* Shidlovsky 1919], replaced by *Microtus socialis goriensis* Argyropulo 1935.
10. *Arvicola terrestris variabilis* Ognev 1933 (nec *Arvicola arvalis* forma *variabilis* Rörig et Börner 1905), replaced by *Microtus terrestris barabensis* Heptner 1948.
11. *Microtus (Pitymys) majori vinogradovi* Sviridenko 1936 [nec *Microtus (Lasiopodomys) vinogradovi* Fetisov 1936], replaced by *Microtus majori labensis* Heptner 1948.
12. *Arvicola terrestris uralensis* Egorin 1940 (nec *Arvicola uralensis* Poliakov 1881), replaced by *Microtus terrestris hyperryphaeus* Heptner 1948.

23 nomenclatural homonyms are also taxonomical synonyms of earlier — valid — names, therefore they can be suppressed. Following names are to be listed here:

1. *Mus rutilus minor* Kerr 1792 (not *Mus jaculus minor* Pallas 1779).
2. *Mus arvalis albus* Bechstein 1801 (not *Mus musculus albus* Bechstein 1801).
3. *Mus amphibius albus* Bechstein 1801 (not *Mus musculus albus* Bechstein 1801, not *Mus arvalis albus* Bechstein 1801).
4. *Mus diluvianus major* Münster 1833 (not *Mus citellus major* Pallas 1779, not *Mus pumilio major* Brants 1827).
5. *Mus diluvianus minor* Münster 1833 (not *Mus jaculus minor* Pallas 1779, not *Mus rutilus minor* Kerr 1792).
6. *Arvicola fulva* Audubon et Bachman 1841 (not *Arvicola fulvus* Millet 1828).
7. *Arvicola rufescens* DeKay 1842 (not *Arvicola rufescens* de Sélys Longchamps 1836).
8. *Arvicola amphibius* var. *minor* de Sélys Longchamps 1845 (not *Arvicola spelaea minor* Münster 1833).
9. *Arvicola arvalis ater* de Sélys Longchamps 1845 (not *Arvicola ater* Macgillivray 1832).
10. *Fiber zibethicus niger* Fitzinger 1867 (not *Fiber zibethicus* var. *B. niger* Richardson 1829).
11. *Arvicola agrestis* var. *nigra* Fatio 1869 (not *Arvicola terrestris niger* de Sélys Longchamps 1836).
12. *Arciola arvalis* var. *fulva* Fatio 1869 (not *Arvicola fulvus* Millet 1829, not *Arvicola fulva* Audubon et Bachman 1841).
13. *Myodes lemmus fossilis* Roger 1879 (not *Myodes torquatus fossilis* Roger 1879).
14. *Arvicola riparia fossilis* Roger 1879 (not *Arvicola amphibia fossilis* Roger 1879, not *Arvicola terrestris fossilis* Roger 1879).
15. *Arvicola arvalis fossilis* Roger 1879 (not *Arvicola amphibius fossilis* Roger 1879, etc.).
16. *Arvicola (Evotomys) glareolus fossilis* Roger 1887 (not *Arvicola amphibius fossilis* Roger 1879, etc.).
17. *Arvicola (Hemiotomys) nivalis fossilis* Roger 1887 (not *Arvicola apmhibius fossilis* Roger 1879, tec.).
18. *Arvicola (Hemiotomys) raticeps fossilis* Roger 1887 (not *Arvicola amphibius fossilis* Roger 1879, etc.).
19. *Arvicola (Arvicola) agrestis fossilis* Roger 1887 (not *Arvicola amphibius fossilis* Roger 1879, etc.).
20. *Arvicola (Arvicola) gregalis fossilis* Roger 1887 (not *Arvicola amphibius fossilis* Roger 1879, etc.).
21. *Arvicola (Hemiotomys) saxatilis fossilis* Roger 1896 (not *Arvicola amphibius fossilis* Roger 1879, etc.).
22. *Fiber niger* Brass 1911 (not *Fiber zibethicus* var. *B. nigra* Richardson 1829, not *Fiber zibethicus niger* Fitzinger 1867).
23. *Evotomys glareolus intermedius* Burg 1923 [not *Arvicola (Evotomys) intermedius* Newton 1881].

9 further names are taxonomic homonyms and have been replaced by valid names, as seen in the followings:

1. *Arvicola pratensis* Bell 1837 (not *Lemmus pratensis* Baillon 1834, placed in *Clethrionomys*), replaced by *Evotomys britannicus* Miller 1900.
2. *Arvicola obscurus* Middendorff 1853 (not *Hypudaeus obscurus* Eversmann 1841 — both *Microtus*), replaced by *Arvicola middendorffi* Poliakov 1881.
3. *Phaiomys leucurus* Blyth 1863 (not *Arvicola leucurus* Gerbe 1852 — a member of the *Microtus syriacus-nivalis*-group) is to be rejected if *Phaiomys* belongs to *Microtus* as subgenus. It is replaced by *Arvicola blythii* Blanford 1875.

4. *Microtus insularis* Bailey 1898 (not *Lemmus insularis* Nilsson 1844 — referable to *Microtus*), replaced by *Microtus nesophilus* Bailey 1898.
5. *Microtus terrestris rufescens* Satunin 1908 (not *Arvicola rufescens* DeKay 1842) is a species of *Arvicola* — replaced by *Microtus terrestris karatschicus* Heptner 1948.
6. *Microtus roberti occidentalis* Turov 1928 (not *Arvicola occidentalis* Peale 1848 — a true *Microtus*), replaced by *Microtus roberti circassicus* Heptner 1948 (= *Microtus roberti turovi* Hoffmeister 1949).
7. *Microtus middendorffii uralensis* Skalon 1935 (not *Arvicola uralensis* Poliakov 1881 — a species of *Microtus*), replaced by *Microtus middendorffii ryphaeus* Heptner 1948.
8. *Clethrionomys glareolus sibiricus* Egorin 1939 (not *Arvicola rufocanus sibiricus* Poliakov 1881), replaced by *Clethrionomys glareolus tomensis* Heptner 1948.
9. *Clethrionomys gapperi rufescens* Smith 1940 (not *Arvicola rufescens* de Sélys Longchamps 1836 — a species of *Clethrionomys*), replaced by *Clethrionomys gapperi pallescens* Hall et Cockrum 1952.

Four names are taxonomic homonyms — if groups as *Pitymys* or *Phaiomys* are only subgenera of *Microtus* (a very extended opinion among recent mammalogists) — and must be replaced by new ones. The names falling in this category are :

1. *Pitymys depressus* Miller 1908 (nec *Arvicola arvalis* forma *depressa* Rörig et Börner 1905 — belonging to *Microtus*), replaced by *Microtus (Pitymys) savii gerritmilleri* n. nom.
2. *Pitymys arvaloides* Hinton 1923 (not *Arvicola arvaloides* Pomel — a species of *Microtus*), replaced by *Microtus (Pitymys) arvalidens* n. nom.
3. *Pitymys multiplex brauneri* Martino 1926 (not *Microtus arvalis brauneri* Martino 1926), replaced by *Microtus (Pitymys) subterraneus serbicus* n. nom.
4. *Microtus agrestis wettsteini* Éhik 1928 (not *Pitymys subterraneus wettsteini* Éhik 1926), replaced by *Microtus agrestis carinthiacus* n. nom.

At least 11 names are not only taxonomical homonyms, but at the same time synonyms of earlier — valid — names ; therefore they can be rejected without substitutes. These are as follows :

1. *Hypudaeus terrestris aquaticus* Billberg 1827 (not *Lemmus aquaticus* Cuvier 1817 — to be placed in *Arvicola*).
2. *Arvicola ater* Macgillivray 1832 (not *Hypudaeus terrestris ater* Billberg 1827 — placed in *Arvicola*).
3. *Arvicola alliaria* Eversmann 1840 (not *Mus alliarius* Pallas 1779) — if both belong to *Alticola*, as supposed by recent authors.
4. *Hypudaeus spelaeus* Giebel 1847 (not *Arvicola spelaea* Münster 1833) — both placed in *Arvicola*.
5. *Myodes torquatus fossilis* Roger 1879 (not *Lemmus fossilis* Pomel 1853 — a fossil form of *Dicrostonyx*).
6. *Myodes torquatus major* Woldrich 1880 (not *Arvicola spelaeus major* Münster 1833) — both being based on fossil remains of *Dicrostonyx*.
7. *Microtus oeconomus fossilis* Trouessart 1899 (not *Arvicola riparia fossilis* Roger 1879, etc. — all forms of *Microtus*).
8. *Arvicola agrestis fusca* Fatio 1900 (not *Microtus strauchi fuscus* Büchner 1889), if *Phaiomys* is a subgenus of *Microtus*.
9. *Arvicola arvalis forma principalis* Rörig et Börner 1905 (not *Microtus principalis* Rhoads 1895) — both being members of *Microtus*.
10. *Pitymys ibericus fuscus* Miller 1908 (not *Microtus strauchi fuscus* Büchner 1889, not *Arvicola agrestis fusca* Fatio 1900).
11. *Microtus agrestis neglectus*, Ognev 1913 (not *Arvicola neglectus* Jenyns 1841 — a *Microtus*).

Finally we must mention the use of some recent authors who include *Arvicola* in *Microtus* as at least a subgenus of the latter. This practice would involve that not less than 8 names (four of which are apparently valid names

of adopted units) must be rejected as homonyms and replaced by other — in some case new — names. The names touched by this procedure are:

1. *Microtus terrestris* Schrank 1798 (not *Mus terrestris* Linné 1758 — the Swedish form of *Arvicola*) — otherwise a synonym of *Microtus arvalis arvalis* (Pallas 1779).
2. *Arvicola spelaeus minor* Münster 1833 [not *Spalax minor* Leske 1779 — a possible prior name for the form known by the name *Arvicola scherman* (Shaw 1801), supposed, that former name is applicable to a form of *Arvicola*] — an unidentifiable species of *Microtus*.
3. *Arvicola amphibius* subvar. *nigricans* de Sélys Longchamps 1845 (not *Mus arvalis nigricans* Kerr 1792 — a synonym of *Microtus agrestis*) — probably a synonym of *Arvicola terrestris amphibius* (Linné 1758).
4. *Microtus diluvianus* Cope 1896 (not *Mus diluvianus* Münster — a fossil form of *Arvicola*) — wanting in this case a new name.
5. *Stenocranius major* Ognev 1923 (not *Mus diluvianus major* Münster 1833, a synonym of *Mus diluvianus* Münster 1833 — a fossil member of *Arvicola*) — wanting in this case a new name.
6. *Microtus mordax littoralis* Swarth 1933 (not *Hypudaeus terrestris littoralis* Billberg 1827 — a synonym of *Arvicola terrestris*) — apparently wanting in this case a new name.
7. *Microtus agrestis ognevi* Skalon 1935 (not *Arvicola terrestris ognevi* Turov 1926) — replaced by *Microtus agrestis scaloni* Heptner 1948.
8. *Arvicola terrestris martinoi* Petrov 1949 (not *Pitymys nyirensis martinoi* Éhik 1935) — wanting in this case a new name.

In relation of the fusion of the genera *Microtus* and *Arvicola* it must be emphasized that both zoological and paleontological evidencies militate against this experiment. Therefore the author would expressively warn against the erection of new names for „homonyms” of this sort.