

**Family Spalacidae**

REVIEWED BY: O. L. Rossolimo (OLR).

COMMENT: Reviewed by Corbet, 1978:129-130, and Topachevskii, 1969, in [Fauna S.S.S.R., Mammals], n.s., 3(3):99; also see Reig, 1980, J. Zool. Lond., 192:257-281, and comment under Cricetidae.

ISIS NUMBER: 5301410009000000000.

*Spalax* Guldenstaedt, 1770. Nova Comm. Acad. Sci. Petrop., ser. 14, 1:410.

COMMENT: Includes *Microspalax*; see Corbet, 1978:129. Also see Topachevskii, 1969, in [Fauna S.S.S.R., Mammals], n.s., 3(3):114, who considered *Microspalax* a distinct genus. Gromov and Baranova, 1981:128, employed the name *Nannospalax* in place of *Microspalax*. For a discussion of the content of this genus, see Martynova *et al.*, 1975, Abstr. Symp. Syst. and Cytogenet. Mamm., Moscow, p. 12-13, and Vorontsov *et al.*, 1977, Zool. Zh., 56:1207-1214.

ISIS NUMBER: 5301410009001000000.

*Spalax giganteus* Nehring, 1898. Sitzb. Ges. Naturf. Fr. Berlin, p. 169.

TYPE LOCALITY: U.S.S.R., Daghستان, W. shore of Caspian Sea, Petrovsky-Port near Makhach-Kala.

DISTRIBUTION: Steppe N.W. of Caspian Sea and in Kazakhstan east of Ural River (U.S.S.R.).

COMMENT: Includes *uralensis*; see Corbet, 1978:130.

*Spalax leucodon* Nordmann, 1840. Demidoff Voy., 3:34.

TYPE LOCALITY: U.S.S.R., S. Ukraine, near Odessa.

DISTRIBUTION: Danube basin to Greece and S. Ukraine; Caucasus through Asia Minor, N. Iraq, and Syria to Israel; coastal Egypt and Libya, west to Benghazi.

COMMENT: Includes *ehrenbergi* and *nehringi*; see Corbet, 1978:130, Harrison, 1972, The Mammals of Arabia, 3:438-440, and Orlov, 1969, in Vorontsov, [The Mammals: Evolution, Karyology, Taxonomy, Fauna], Novosibirsk. Wahrman *et al.*, 1969, Comp. Mamm. Cytogen., pp. 30-48, Topachevskii, 1969, in [Fauna S.S.S.R., Mammals], n.s., 3(3):99, and others presented evidence that *ehrenbergi* and *nehringi* are specifically distinct and that this superspecies may contain 2-5 species. OLR follows Topachevskii, 1969, in regarding these forms as distinct species. See also Lyapunova *et al.*, 1974, Symp. Ther. II, Prague, pp. 203-215, and Soldatovic and Savic, 1978, Säugetierk. Mitt., 26:252-256.

ISIS NUMBER: 5301410009001002001 as *S. leucondon* (*sic*).

5301410009001001001 as *S. ehrenbergi*.

*Spalax microphthalmus* Guldenstaedt, 1770. Nova Comm. Acad. Sci. Petrop., 14:1.

TYPE LOCALITY: U.S.S.R., Voronezhsk. Obl., Novokhoper Steppe.

DISTRIBUTION: Ukraine and S. Russia, southwest to Bulgaria and Greece, east to Volga and N.C. Caucasus.

COMMENT: Includes *arenarius*, *polonicus* (= *zemni*), and *graecus*; see Corbet, 1978:130. OLR follows Topachevskii, 1969, in [Fauna S.S.S.R., Mammals], n.s., 3(3):99, in regarding these forms as distinct species, as did Gromov and Baranova, 1981:131-132.

ISIS NUMBER: 5301410009001003001.

**Family Rhizomyidae**

REVIEWED BY: J. E. Bucher (JEB).

COMMENT: Family status reviewed by Arata, 1967 in Anderson and Jones, p. 236, and Reig, 1980, J. Zool. Lond., 192:257-281.

ISIS NUMBER: 5301410010000000000.

*Cannomys* Thomas, 1915. Ann. Mag. Nat. Hist., ser. 8, 16:57.

ISIS NUMBER: 5301410010001000000.

*Cannomys badius* (Hodgson, 1841). Calcutta J. Nat. Hist., 2:60.

TYPE LOCALITY: Nepal.

DISTRIBUTION: Nepal; Assam (India); Burma; E. and S. Thailand.

ISIS NUMBER: 5301410010001001001.

*Rhizomys* Gray, 1831. Proc. Zool. Soc. Lond., 1831:95.

REVIEWED BY: S. Wang (SW).

ISIS NUMBER: 5301410010002000000.

*Rhizomys pruinosus* Blyth, 1851. J. Asiat. Soc. Bengal, 20:519.

TYPE LOCALITY: India, Assam, Khasi Hills, Cherrapunji.

DISTRIBUTION: S. China and Assam (India) to Malaya.

ISIS NUMBER: 5301410010002001001.

*Rhizomys sinensis* Gray, 1831. Proc. Zool. Soc. Lond., 1831:95.

TYPE LOCALITY: China, Kwangtung, near Canton.

DISTRIBUTION: S. and C. China to N. Burma.

ISIS NUMBER: 5301410010002002001.

*Rhizomys sumatrensis* (Raffles, 1821). Trans. Linn. Soc. Lond., 13:258.

TYPE LOCALITY: Malaysia, Malacca.

DISTRIBUTION: Yunnan (China); Indochina; Thailand; Burma; Malaya; Sumatra.

ISIS NUMBER: 5301410010002003001.

*Tachyoryctes* Ruppell, 1835. Neue Wirbelt. Fauna Abyssin. Gehorig. Saugeth., p. 35.

ISIS NUMBER: 5301410010003000000.

*Tachyoryctes macrocephalus* Ruppell, 1842. Mus. Senckenbergianum Abh., 3:97.

TYPE LOCALITY: Ethiopia (=Abyssinia), Shoa.

DISTRIBUTION: Ethiopia.

ISIS NUMBER: 5301410010003006001.

*Tachyoryctes splendens* Ruppell, 1835. Neue Wirbelt. Fauna Abyssin. Gehorig. Saugeth., p. 36.

TYPE LOCALITY: Ethiopia (=Abyssinia), Gondar.

DISTRIBUTION: Ethiopia; Somalia; Kenya; Uganda; E. Zaire; Rwanda; Burundi; Mt.

Kilimanjaro (Tanzania).

COMMENT: Includes *ankoliae*, *annectens*, *audax*, *cheesmani*, *daemon*, *naivashae*, *pontifex*, *rex*, *ruandae*, *ruddi*, *spalacinus*, and *storeyi*; see Misonne, 1974, Part 6:7.

ISIS NUMBER: 5301410010003013001 as *T. splendens*.

5301410010003001001 as *T. ankoliae*.

5301410010003002001 as *T. annectens*.

5301410010003003001 as *T. audax*.

5301410010003004001 as *T. cheesmani*.

5301410010003005001 as *T. daemon*.

5301410010003007001 as *T. naivashae*.

5301410010003008001 as *T. pontifex*.

5301410010003009001 as *T. rex*.

5301410010003010001 as *T. ruandae*.

5301410010003011001 as *T. ruddi*.

5301410010003012001 as *T. spalacinus*.

5301410010003014001 as *T. storeyi*.

### Family Arvicolidae

REVIEWED BY: J. Chaline (JC); R. S. Hoffmann (RSH); L. D. Martin (LDM); C. A.

Repenning (CAR); O. L. Rossolimo (OLR)(U.S.S.R.); W. von Koenigswald (WVK); S. Wang (SW) (China).

COMMENT: For assignment of name and family rank, see Kretzoi, 1962, Vert. Hungar. (Budapest), 4:171-175, Kretzoi, 1969, Vert. Hungar. (Budapest), 11:155-193, Van der Meulen, 1978, Ann. Carnegie Mus., 47:101-145, Chaline and Mein, 1979, and Reig, 1980, J. Zool. Lond., 192:260. For a review of alternative classifications of the rodents, see Swanepoel *et al.*, 1980, Ann. Transvaal Mus., 32(7):155-196, and Anderson and Jones, 1967. CAR retained this group in Cricetidae.

*Alticola* Blanford, 1881. J. Asiat. Soc. Bengal, 50:96.

COMMENT: Revised, in part, by Heptner and Rossolimo, 1968, Sbor. Tr. Zool. Mus. Moscow State Univ., 10:53-93. Closely related to *Dinaromys*, *Eothenomys*, and

*Hyperacrius* (JC), or possibly to *Lagurus* (CAR). Placed in tribe Clethrionomyini by Gromov and Polyakov, 1977:126.

ISIS NUMBER: 5301410008068000000.

*Alticola macrotis* Radde, 1862. Reise in den Suden von Ost-Sibirien, 1:196, Die Säugethierfauna im Suden von Ost-Sibirien. Besobrasoff, St. Petersburg.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., S. Krasnoyarsk. Krai, E. Sayan Mtns.

DISTRIBUTION: Sayan and Altai Mtns.; mountains S.E. of Lake Baikal and head of Shilka River (U.S.S.R.); Khangai Mtns. (Mongolia).

COMMENT: See comment under *Eothenomys lemminus*.

ISIS NUMBER: 5301410008068002001.

*Alticola roylei* Gray, 1842. Ann. Mag. Nat. Hist., ser. 1, 10:265.

TYPE LOCALITY: India, "Cashmere."

DISTRIBUTION: N.W. Afghanistan, N. Pakistan, probably adjacent Tibet and N. India; Pamir, Tien Shan, Altai, and other ranges, north to Lake Baikal, and east through Mongolia to Sinkiang (China).

COMMENT: Includes *argentatus* and *barakschin*; see Heptner and Rossolimo, 1968, Sbor. Tr. Zool. Mus. Moscow State Univ., 10:53-93; but *argentatus* may be a distinct species and *barakschin* may be a subspecies of *stoliczkanus*; see Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):129. Sokolov and Orlov, 1980:133, and Gromov and Baranova, 1981:176, both treated *argentatus*, as a distinct species and the latter excluded *barakschin* from *roylei*.

ISIS NUMBER: 5301410008068003001.

*Alticola stoliczkanus* Blanford, 1875. J. Asiat. Soc. Bengal, 44:107.

TYPE LOCALITY: India, Ladak, Kunlun Mtns.

DISTRIBUTION: Mustang Dist. (Nepal); N. Ladak (Tibet). N.W. Kansu (China) (SW).

COMMENT: Includes *nanshanicus*; *lama*, provisionally included following Gromov and Polyakov, 1977:130, and Corbet, 1978:103, was placed in *roylei* by Heptner and Rossolimo, 1968, Sbor. Tr. Zool. Mus. Moscow State Univ., 10:53-93.

ISIS NUMBER: 5301410008068004001.

*Alticola stracheyi* (Thomas, 1880). Ann. Mag. Nat. Hist., ser. 5, 6:332.

TYPE LOCALITY: India, Ladak; originally cited as Kumaon.

DISTRIBUTION: Kashmir; Ladak; N. Nepal; Tibet (China) (SW).

COMMENT: Considered a subspecies of *stoliczkanus* by Gromov and Polyakov, 1977:130, and Corbet, 1978, and placed with *roylei* by Heptner and Rossolimo, 1968, Sbor. Tr. Zool. Mus. Moscow State Univ., 10:53-93; but Mitchell, 1977, Accounts of Nepalese Mammals, considered it a distinct species and included *bhatnagari* as a synonym; he also discussed the type locality. Gromov and Baranova, 1981:177, allied *barakschin* with *stoliczkanus* and *stracheyi*.

ISIS NUMBER: 5301410008068001001 as *A. bhatnagari*.

*Alticola strelzowi* (Kastchenko, 1899). Izv. Imp. Tomsk. Univ., 16:50.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Altaisk. Krai, Altai Mtns., near Lake Tenga.

DISTRIBUTION: Altai Mtns. of N.W. Mongolia, west through Gorno-Altai. A.O. and Kazakh S.S.R. north of Lake Balkhash to beyond Karaganda (U.S.S.R.).

ISIS NUMBER: 5301410008068005001.

*Arborimus* Taylor, 1915. Proc. Calif. Acad. Sci., ser. 4, 5(5):119.

REVIEWED BY: M. L. Johnson (MLJ).

COMMENT: Formerly included in *Phenacomys*; see Johnson, 1973, J. Mammal., 54:239-244, and Johnson and Maser, in press, Northwest. Sci. Hall, 1981:788, considered *Arborimus* a subgenus of *Phenacomys*.

*Arborimus albipes* Merriam, 1901. Proc. Biol. Soc. Wash., 14:125.

TYPE LOCALITY: U.S.A., California, Humboldt Co., Arcata, in redwoods.

DISTRIBUTION: W. Oregon, N.W. California, south to Humboldt Co. (U.S.A.).

COMMENT: Close relationship of this species with *longicaudus* documented by Johnson and Maser, in press, Northwest, Sci., who separated *Arborimus* from *Phenacomys*; Hall, 1981:787, placed this species in the subgenus *Phenacomys*.

ISIS NUMBER: 5301410008084001001 as *Phenacomys albipes*.

*Arborimus longicaudus* True, 1890. Proc. U.S. Nat. Mus., 13:303.

TYPE LOCALITY: U.S.A., Oregon, Coos Co., Marshfield.

DISTRIBUTION: W. Oregon, N.W. California (U.S.A.), south to Freestone (Sonoma Co.).

COMMENT: Includes *silvicola*; see Johnson, 1968, Syst. Zool., 17:27. Formerly included in *Phenacomys*; see comment under *Arborimus*.

ISIS NUMBER: 5301410008084003001 as *Phenacomys longicaudus*.

5301410008084004001 as *Phenacomys silvicola*.

*Arvicola* Lacepede, 1799. Tabl. Mamm., p. 10.

REVIEWED BY: J.-P. Airoldi (JPA); M. Andera (MA); M. L. Johnson (MLJ).

COMMENT: Considered by Ellerman and Morrison-Scott, 1951, Gromov and Polyakov, 1977:235, Hibbard *et al.*, 1978, Contrib. Mus. Paleontol. Univ. Mich., 25(2):11-44, Chaline and Mein, 1979, Martin, R. A., 1979, Evol. Monogr., 2:30, and Repenning, 1979, Abstr. Pap. Geol. Soc. Am., to be Palearctic only by excluding Nearctic *Microtus richardsoni*. However, Hooper and Hart, 1962, Misc. Publ. Mus. Zool. Univ. Mich., 120, 68 pp., Jannett, 1974, Am. Midl. Nat., 92:230-234, Corbet and Hill, 1980:161, and others included *richardsoni* as well (RSH). Placed in tribe Microtini (= Arvicolini) by Gromov and Polyakov, 1977:203.

ISIS NUMBER: 5301410008069000000.

*Arvicola sapidus* Miller, 1908. Ann. Mag. Nat. Hist., ser. 8, 1:195.

TYPE LOCALITY: Spain, Burgos Prov., Santo Domingo de Silos.

DISTRIBUTION: Iberian Peninsula; W. France.

COMMENT: Formerly included in *terrestris*, but separated by Matthey, 1956, Mammalia, 20:93-123, and Reichstein, 1963, Z. Zool. Syst. Evolutionforsch., 1:155-204.

*Arvicola terrestris* (Linnaeus, 1758). Syst. Nat., 10th ed., 1:61.

TYPE LOCALITY: Sweden, Uppsala.

DISTRIBUTION: Europe (except Iberia, W. France, and S. Italy), south to Israel and Iran, north to Arctic Ocean, east through most of Siberia, south to Lake Baikal and N. Tien Shan Mtns. (U.S.S.R. and N.W. China).

COMMENT: Formerly included *sapidus*; see comment under *sapidus*. The populations of small, fossorial forms of central Europe are sometimes separated as *scherman*; see Meylan, 1977, EPPO Bull., 7:209-221.

ISIS NUMBER: 5301410008069002001.

*Clethrionomys* Tilesius, 1850. Isis, 2:28.

REVIEWED BY: R. P. Canham (RPC); M. L. Johnson (MLJ); S. R. Leffler (SRL).

COMMENT: Includes *Caryomys*, *Craseomys*, *Evotomys*, and *Neoaschizomys*; see Corbet, 1978:97, and Ellerman and Morrison-Scott, 1951:659. Corbet, 1978:97-98, 100, included *Eothenomys andersoni* in this genus; but see Imaizumi, 1960, Coloured Illustrations of the Mammals of Japan, 196 pp., and Aimi, 1980, Mem. Fac. Sci. Kyoto Univ. Ser. Biol., 8:35-84.

ISIS NUMBER: 5301410008072000000.

*Clethrionomys californicus* (Merriam, 1890). N. Am. Fauna, 4:26.

TYPE LOCALITY: U.S.A., California, Humboldt Co., Eureka.

DISTRIBUTION: Pacific coast coniferous forest from the Columbia River south through W. Oregon and N. California (U.S.A.).

COMMENT: The name *occidentalis* was formerly applied, but populations north of the Columbia River, including *occidentalis* and *caurinus* are now assigned to *gapperi*; see Johnson and Ostenson, 1959, J. Mammal., 40:574-577, and Cowan and Guiget, 1965, The Mammals of British Columbia, Brit. Columbia Prov. Mus. Handbook, 11:1-413.

*Clethrionomys centralis* Miller, 1906. Ann. Mag. Nat. Hist., ser. 7, 17:373.

TYPE LOCALITY: U.S.S.R., Kazakh. S.S.R., Taldy-Kurgansk. Obl., Koksuy valley, Dzhungarsk. Alatau Mtns.

DISTRIBUTION: Restricted to Tien Shan and Dzhungarsk. Alatau Mtns. (U.S.S.R. and Sinkiang, China).

COMMENT: Earlier literature refers to these voles as *frater* (Thomas, 1908). Corbet, 1978:99, determined that *frater* is a junior synonym of *centralis*, which had been incorrectly referred to *rutilus* by Ellerman and Morrison-Scott, 1951:661. Corbet, 1978:99, placed *centralis* as a synonym of *glareolus*, but Orlov, 1968, [Probl. Evolution], 1:184-194, Orlov and Kryukova, 1975, [Systematics and cytogenetics of mammals], Moscow, p. 26, and Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):1-502, provided evidence of its specific distinctness. Still referred to in Russian literature as *frater* (RSH, OLR).

*Clethrionomys gapperi* (Vigors, 1830). Zool. J., 5:204.

TYPE LOCALITY: Canada, Ontario, between York (=Toronto) and Lake Simcoe.

DISTRIBUTION: From Labrador to N. British Columbia (Canada), south in the Appalachians to N. Georgia; Great Lakes, Northern Plains, and Rocky Mtns. (New Mexico and Arizona) to Columbia River in Washington (U.S.A.).

COMMENT: Includes *occidentalis* and *caurinus*; see Johnson and Ostenson, 1959, J. Mammal., 40:571-577, Cowan and Guiguet, 1965, The Mammals of British Columbia, Br. Columbia Prov. Mus. Handbook, 11:1-413, and Hall, 1981:780, 782-783. Closely related to Eurasian *glareolus*; captive mating produces fertile hybrids, but of reduced fertility; see Grant, 1974, J. Zool. Lond., 174:245-254. Youngman, 1975, Mammals of the Yukon Terr., Nat. Mus. Can. Publ. Zool., 10:85, considered *gapperi* and *rutilus* conspecific; but see Nadler *et al.*, 1978, Can. J. Zool., 56(7):1564-1575, and Hall, 1981:778-784; also see comment under *rutilus*. Reviewed by Merritt, 1981, Mamm. Species, 146:1-9.

ISIS NUMBER: 5301410008072001001 as *C. gapperi*.

ISIS NUMBER: 5301410008072003001 as *C. occidentalis*.

*Clethrionomys glareolus* (Schreber, 1780). Die Säugethiere, 4:680.

REVIEWED BY: M. Andera (MA).

TYPE LOCALITY: Denmark, Lolland Isl.

DISTRIBUTION: W. Eurasia, from Britain and Scandinavia south to Pyrennes, Italy, the Balkans, Transcaucasus, and east to C. Siberia (Altai and Sayan Mtns., U.S.S.R.).

COMMENT: See comments under *gapperi* and *centralis*.

ISIS NUMBER: 5301410008072002001.

*Clethrionomys rufocanus* (Sundevall, 1846). Ofv. Kongl. Svenska Vet.-Akad. Forhandl. Stockholm, 3:122.

REVIEWED BY: M. Andera (MA).

TYPE LOCALITY: Sweden, Lappmark.

DISTRIBUTION: N. Palearctic from Scandinavia to Chukotka and to Mongolia, Transbaikalia, N.E. China; Korea; Kamchatka, Sakhalin (U.S.S.R.), Hokkaido and Rishiri Isl. (Japan).

COMMENT: Includes *bedfordiae*; see Gromov and Polyakov, 1977:147, and Corbet, 1978:99, but also see Imaizumi, 1972, Mem. Nat. Sci. Mus. Tokyo, 5:131-139. Includes *montanus* and *rex*; see Aimi, 1980, Mem. Fac. Sci. Kyoto Univ. Ser. Biol., 8:35-84. Corbet, 1978:99, tentatively included *montanus* in *rex*, which he listed as a species; Imaizumi, 1972, Mem. Nat. Sci. Mus. Tokyo, 5:131-139, regarded both as distinct species; he believed them to be close to *rufocanus*, which also occurs on Hokkaido (as *C. r. bedfordiae*) and possibly Rishiri (as *sikotanensis*); also see Imaizumi, 1971, J. Mamm. Soc. Jpn., 5:99-103. Revision of this species is needed for the Japanese, Korean, and Chinese forms; more than one species may be present (MLJ).

ISIS NUMBER: 5301410008072004001.

*Clethrionomys rutilus* (Pallas, 1778). Nova Spec. Quad. Glir. Ord., p. 246.

REVIEWED BY: M. Andera (MA).

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., center of Ob River delta.

DISTRIBUTION: N. Scandinavia east to Chukotka, south to N. Kazakhstan (U.S.S.R.), Mongolia, Transbaikalia, N.E. China, Sakhalin and Hokkaido; St. Lawrence Isl. (Bering Sea); Alaska east to Hudson Bay, south to N. British Columbia and Manitoba (Canada).

COMMENT: Revised by Hinton, 1926, Monograph of the voles and lemmings (Microtinae), Br. Mus. Nat. Hist., pp. 1-488, Manning, 1956, Bull. Nat. Mus. Can., 144:1-67, and Orr, 1945, J. Mammal., 26:67-74. Youngman, 1975, Mammals of the Yukon Terr., Nat. Mus. Can. Publ. Zool., 10:85, considered *rutilus* and *gapperi* conspecific; but also see Nadler *et al.*, 1978, Can. J. Zool., 56(7):1564-1575, and Hall, 1981:778-784, and comments under *gapperi*. Rossolimo, 1971, Byull. Mosk. Ova. Ispyt. Prir. Otd. Biol., 76:63-68, considered *rjabovi* to be a color mutant of *rutilus*, but Corbet, 1978:98, listed it as a subspecies.

ISIS NUMBER: 5301410008072005001.

*Clethrionomys sikotanensis* (Tokuda, 1935). Mem. Coll. Sci. Kyoto, 106:241.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Sakhalin Obl., Sikotan Isl.

DISTRIBUTION: Poronaisk Raion and S.W. Sakhalin; Sikotan and Kunashir (Kurile Is.); possibly Rishiri Isl.

COMMENT: Allocated by Corbet, 1978:99, and Aimi, 1980, Mem. Fac. Sci. Kyoto Univ., Ser. Biol., 8:35-84, to *rufocanus*; Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):1-502, and Imaizumi, 1972, Mem. Nat. Sci. Mus. Tokyo, 5:131-139, provided evidence of specific status. See Imaizumi, 1971, J. Mamm. Soc. Jpn., 5:99-103, Gromov and Polyakov, 1977:149, and Gromov and Baranova, 1981:179, for discussion of distribution.

*Dicrostonyx* Gloger, 1841. Hand. Hilfsb. Nat., 1:97.

REVIEWED BY: M. L. Johnson (MLJ).

COMMENT: This genus is more complex than previously believed; see Rausch and Rausch, 1972, Z. Säugetierk., 37:372-384; Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177; compare with Corbet, 1978:96, and Hall, 1981:835-837. Many previously nominate subspecies are here considered full species. According to experimental breeding and karyotypic evidence the *torquatus* group represents a superspecies comprising at least nine allospecies (MLJ). The geographically isolated taxon *nunatakensis* was described as a subspecies of *torquatus* by Youngman, 1967, Proc. Biol. Soc. Wash., 80:31-34, and listed as a subspecies of *groenlandicus* by Hall, 1981:836. It is morphologically distinct from geographically adjacent *kilangmiutak* and *rubricatus*; see Youngman, 1975, Mammals of the Yukon Terr., Natl. Mus. Can. Publ. Zool., 10:116, and is here left unassigned; known only from the Ogilvie Mtns., C. Yukon (Canada) (RSH). Two subgenera (*Dicrostonyx* and *Misothermus*) have been recognized; *D. hudsonius* represents the latter. Placed in tribe Dicrostonyxini by Gromov and Polyakov, 1977:177.

ISIS NUMBER: 5301410008073000000.

*Dicrostonyx exsul* G. M. Allen, 1919. Bull. Mus. Comp. Zool. Harv. Univ., 62:532.

TYPE LOCALITY: U.S.A., Alaska, Bering Sea, St. Lawrence Isl.

DISTRIBUTION: Known only from the type locality.

COMMENT: Female diploid number is 34; fundamental number is 54. Formerly included in *torquatus*; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177.

*Dicrostonyx groenlandicus* Traill, 1823. In Scoresby, Jour. Voy. to Northern Whale-Fishery, p. 416.

TYPE LOCALITY: Greenland, Jameson's Land (Denmark).

DISTRIBUTION: N. Greenland, west to Baffin, Southampton, Axel Heiberg, Melville and Prince Patrick Isls. (Canada).

COMMENT: Includes *clarus* and, tentatively, *lentus*; see Youngman, 1975, Mammals of the Yukon Terr., Nat. Mus. Can. Publ. Zool., 10:115 (neither taxon has been karyotyped (RSH)). Limits of distribution uncertain; diploid number is 46 for male and female, and the fundamental number is 52. Formerly included in *torquatus*; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177. Hall, 1981:835-837, included all N. American taxa except *hudsonius* under this name. See also comments under genus *Dicrostonyx*.

*Dicrostonyx hudsonius* (Pallas, 1778). Nova Spec. Quad. Glir. Ord., p. 208.

TYPE LOCALITY: Canada, Labrador.

DISTRIBUTION: Labrador and N. Quebec (Canada).

COMMENT: A distinctive species placed in its own monotypic subgenus, *Misothermus*; see Guilday, 1968, Univ. Colo. Stud. Ser. Earth Sci., No. 6, and Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177.

ISIS NUMBER: 5301410008073001001.

*Dicrostonyx kilangmiutak* Anderson and Rand, 1945. J. Mammal., 26:305.

TYPE LOCALITY: Canada, W. side of Victoria Strait, S.E. point of Victoria Isl., DeHaven Point.

DISTRIBUTION: Victoria and Banks Isl. and the adjacent mainland (Canada).

COMMENT: Distribution poorly known. Diploid number is 47 for males and females and the fundamental number is 56; formerly included in *torquatus*; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177; or *groenlandicus*; see Hall, 1981:836.

*Dicrostonyx nelsoni* Merriam, 1900. Proc. Wash. Acad. Sci., 2:25.

TYPE LOCALITY: U.S.A., Alaska, Norton Sound, St. Michael.

DISTRIBUTION: W. coastal Alaska and Alaska Peninsula.

COMMENT: Tentatively includes *peninsulae*; see Youngman, 1975, Mammals of the Yukon Terr., Nat. Mus. Can. Publ. Zool., 10:115 (has not been karyotyped (RSH)). Range poorly known; diploid number is 30 for males and females and the fundamental number is 54; formerly included in *torquatus*; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177; or *groenlandicus*; see Hall, 1981:836.

*Dicrostonyx richardsoni* Merriam, 1900. Proc. Wash. Acad. Sci., 2:26.

TYPE LOCALITY: Canada, Manitoba, Fort Churchill.

DISTRIBUTION: Canada west of Hudson Bay.

COMMENT: The extent of westward distribution is unknown. The diploid number is 44 for males and 42 for females and the fundamental number is 50; formerly included in *torquatus*; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177; or *groenlandicus*; see Hall, 1981:836.

*Dicrostonyx rubricatus* (Richardson, 1889). The Zool. of Captain Beechey's Voy., p. 7.

TYPE LOCALITY: U.S.A., Alaska, Bering Strait.

DISTRIBUTION: N. Alaska (U.S.A.).

COMMENT: The diploid numbers are 33 and 42 for males, 32 and 34 for females; the fundamental number is 55; formerly included in *torquatus*; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177; or *groenlandicus*; see Hall, 1981:836.

*Dicrostonyx torquatus* (Pallas, 1778). Nova Spec. Quad. Glir. Ord., p. 206.

REVIEWED BY: M. Andera (MA).

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., mouth of Ob River.

DISTRIBUTION: Palearctic tundra from White Sea to Chukotka (U.S.S.R.), Novaya Zemlya, and New Siberian Isls.

COMMENT: Formerly included *groenlandicus* and *vinogradovi*; see Corbet, 1978:96, but see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177, who considered them distinct species. Includes *chionopaes* which may be a distinct species; see Gileva, 1975, Dokl. Akad. Nauk, 224:697-700, Gileva, 1980:99-103, in Vorontsov and Van Brink, eds., Animal genetics and evolution, Junk, The Hague, and Kozlovskii, 1974, Dokl. Akad. Nauk S.S.S.R., 219:981-984. See also comments under genus *Dicrostonyx*.

ISIS NUMBER: 5301410008073002001.

*Dicrostonyx unalascensis* Merriam, 1900. Proc. Wash. Acad. Sci., 2:25.

TYPE LOCALITY: U.S.A., Alaska, Umnak Island.

DISTRIBUTION: Umnak and Unalaska Isls. (U.S.A.).

COMMENT: Includes *stevensoni* Nelson, 1929; the diploid number is 34 for males and females, and the fundamental number is 54; see Rausch and Rausch, 1972, Z. Saugetierk., 37:372-384. Formerly included in *torquatus*; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177; or *groenlandicus*; see Hall, 1981:837.

*Dicrostonyx vinogradovi* Ognev, 1948. Mammals of Eastern Europe and Northern Asia, 6:509.

TYPE LOCALITY: U.S.S.R., Wrangel Isl.

DISTRIBUTION: Known only from the type locality.

COMMENT: Formerly included in *torquatus*; karyological and morphological analyses, and experimental breeding indicated species distinction; see Chernyavskii and Kozlovskii, 1980, Zool. Zh., 59(2):266-273. The diploid number is 28 and the fundamental number is 54. See also Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, pp. 162-177.

*Dinaromys Kretzoi*, 1955. Acta Geol. Acad. Sci. Hung., 3:347-353.

REVIEWED BY: M. Andera (MA).

COMMENT: For use of this name rather than *Dolomys*, see Corbet, 1978:104. Closely related to *Hyperacrius*, *Alticola*, and *Eothenomys* (JC). Placed in tribe Pliomyini of subfamily Ondatrinae by CAR. Placed in tribe Clethrionomyini by Gromov and Polyakov, 1977:114. Koenigswald, 1980, Abh. Senckenb. Naturforsch. Ges., 539, believed that no close relationship with any other living arvicolid is probable on the basis of the internal structure of the molar enamel; there is a probable relationship with the fossil *Propliomys hungaricus*.

*Dinaromys bogdanovi* (Martino, 1922). Ann. Mag. Nat. Hist., ser. 9, 9:413.

TYPE LOCALITY: Yugoslavia, Rijeka Prov., Montenegro, Cetinje.

DISTRIBUTION: Mountains of Yugoslavia; perhaps N. Albania.

COMMENT: Previously referred to the extinct genus *Dolomys*, and sometimes to *D. milleri*; see Corbet, 1978:105. CAR referred *Dolomys* to tribe Ondatrinae, as did Kretzoi, 1955, Acta Geol. Acad. Sci. Hung., 3:347-353.

ISIS NUMBER: 5301410008074001001 as *Dolomys bogdanovi*.

*Ellobius Fischer*, 1814. Zoognosia, 3:72.

COMMENT: Placed with *Prometheomys* in subfamily Prometheomyinae by CAR. Gromov, 1972, Sbor. Tr. Zool. Mus. M.G.U., 13:8-32, excluded *Ellobius* from Arvicolidae as a microtodontine cricetid. OLR follows Corbet, 1978:117, in recognizing only two species *fuscocapillus* and *talpinus*; but see Lyapunova and Vorontsov, 1978, Genetika, 14:2012-2024, and Gromov and Baranova, 1981:151. See comment under *Reithrodon physodes* (Cricetidae), for discussion of Fischer, 1814, names.

ISIS NUMBER: 5301410008075000000.

*Ellobius alaicus* Vorontsov et al., 1969. In [The Mammals: Evolution, karyology, taxonomy, fauna], Sib. Otd., Akad. Nauk., Novosibirsk, p. 127.

TYPE LOCALITY: U.S.S.R., Kirgiz S.S.R., Oshsk. Obl., Alai Valley between Sary-Tash and Bardabo.

DISTRIBUTION: Alai Valley and Alai Mtns. (Kirgizia, U.S.S.R.).

COMMENT: Included in *talpinus* by Corbet, 1978:117, but Lyapunova and Vorontsov, 1978, Genetika, 14:2012-2024, provided evidence of specific distinctness, although they agreed it is closely related.

*Ellobius fuscocapillus* Blyth, 1843. J. Asiat. Soc. Bengal, 11:887.

TYPE LOCALITY: Pakistan, Baluchistan Reg., Quetta Div., Quetta.

DISTRIBUTION: Baluchistan and Afghanistan through Iran and S. Turkmenistan to Kurdistan.

COMMENT: Formerly included *lutescens*; see Corbet, 1978:117, but also see Lyapunova and Vorontsov, 1978, Genetika, 14:2012-2024, and Lyapunova et al., 1980:239-247, in Vorontsov and Van Brink, eds., Animal genetics and evolution, Junk, The Hague, 383 pp.

ISIS NUMBER: 5301410008075001001.



*Ellobius lutescens* Thomas, 1897. Ann. Mag. Nat. Hist., ser. 6, 20:308.

TYPE LOCALITY: Turkey, Kurdistan, Van.

DISTRIBUTION: S. Caucasus Mtns. (U.S.S.R.), south through E. Turkey and W. Iran; perhaps Iraq.

COMMENT: Corbet, 1978:117, and others considered *lutescens* a synonym of *fuscocapillus*; but Lyapunova and Vorontsov, 1978, Genetika, 14:2012-2024, and Lyapunova *et al.*, 1980:293-247, in Vorontsov and Van Brink, eds., Animal genetics and evolution, Junk, The Hague, 383 pp., provided evidence of specific distinctness.

ISIS NUMBER: 5301410008075002001.

*Ellobius talpinus* (Pallas, 1770). Nova Comm. Acad. Sci. Petrop., 14(2):568.

REVIEWED BY: M. Andera (MA).

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Kuibyshevsk. Obl., W. Bank of Volga River, between Kuibyshev (=Samara) and Kostychi.

DISTRIBUTION: Steppes from S. Ukraine and Crimea, east through Kazakhstan (U.S.S.R.) to Sinkiang and Inner Mongolia (China) and Mongolia, north to Sverdlovsk and south to N. Afghanistan, N.W. Iran and N. Pakistan.

COMMENT: Includes *tancrei*, which was considered a distinct species by Gromov and Baranova, 1981:152. Karyology reviewed by Lyapunova *et al.*, 1980:239-247, in Vorontsov and Van Brink, eds., Animal genetics and evolution, Junk, The Hague.

ISIS NUMBER: 5301410008075003001.

*Eolagurus Argyropulo*, 1946. Vestn. Akad. Nauk Kazakh. S.S.R., 7-8:44.

REVIEWED BY: M. Andera (MA).

COMMENT: Included in *Lagurus* by Corbet, 1978:116, but considered a distinct genus by Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):160, 169, who placed *Lagurus* and *Eolagurus* in the tribe Lagurini.

*Eolagurus luteus* (Eversmann, 1840). Bull. Soc. Nat. Moscow, p. 25.

TYPE LOCALITY: U.S.S.R., Kazakh. S.S.R., Aktyubinsk. Obl., N.W. of Aral Sea.

DISTRIBUTION: Kazakhstan to N. Sinkiang (China) and W. Mongolia.

COMMENT: Now extinct in Kazakhstan; see Corbet, 1978:117. Range changes in recent times reviewed by Kalabukhov, 1970, Ekologiya, 1:69-76. Formerly included in *Lagurus*; Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):169, elevated *Eolagurus* to full generic rank and regarded *przewalskii* as a distinct species, *op. cit.*, p. 174; they were followed by Sokolov and Orlov, 1980:139, and Gromov and Baranova, 1981:184.

ISIS NUMBER: 5301410008078003001 as *Lagurus luteus*.

*Eolagurus przewalskii* (Buchner, 1888). Wiss. Res. Przewalski Cent. Asien Zool. Th.

I: Säugeth., p. 127.

TYPE LOCALITY: China, Tsinghai (= N. Tsaidam), shore of Iche-zaidemin Nor.

DISTRIBUTION: N. Tibet and Sinkiang (China) to S. and W. Mongolia.

COMMENT: Formerly included in *luteus*; see Gromov and Polyakov, 1977:174, who were followed by Sokolov and Orlov, 1980:139, and Gromov and Baranova, 1981:184; Corbet, 1978:117, included *przewalskii* in *luteus* without comment.

*Eothenomys* Miller, 1896. N. Am. Fauna, 12:45.

REVIEWED BY: M. L. Johnson (MLJ).

COMMENT: Includes *Antelionomys* (see Ellerman and Morrison-Scott, 1951:667) and *Phaulomys* (see Corbet, 1978:100). Gromov and Polyakov, 1977:137, considered *Antelionomys* a distinct genus. Revised by Corbet, 1978, and Aimi, 1980, Mem. Fac. Sci. Kyoto Univ. Ser. Biol., 8:35-84, who included *Aschizomys* in this genus, and were followed here (RSH); closely related to *Hyperacrius*, *Alticola*, and *Dinaromys* (JC). Placed in tribe Clethrionomyini by Gromov and Polyakov, 1977:158.

ISIS NUMBER: 5301410008076000000 as *Eothenomys*.

5301410008070000000 as *Aschizomys*.

*Eothenomys andersoni* (Thomas, 1905). Abstr. Proc. Zool. Soc. Lond., 23:18.

TYPE LOCALITY: Japan, N. Honshu, Iwate Ken, Tsunagi, near Morioka.

DISTRIBUTION: Honshu (Japan).

COMMENT: Formerly included in *Aschizomys*; includes *niigatae*, from C. Honshu, and *imaizumii* from S. Honshu; see Corbet, 1978:100, and Aimi, 1980, Mem. Fac. Sci. Kyoto Univ. Ser. Biol., 8:35-84; both were considered distinct species by Ota and Jameson, 1961, Pacif. Sci., 15:594-604, and Imaizumi, 1960, Coloured Illustrations of the Mammals of Japan, 196 pp. Ota and Jameson, 1961, Ecology, 42:184-186, Ota and Jameson, 1961, Pacif. Sci., 15:594-604, Gromov and Polyakov, 1977:147, and Corbet, 1978:100, placed *andersoni* in *Clethrionomys*.

*Eothenomys chinensis* (Thomas, 1891). Ann. Mag. Nat. Hist., ser. 6, 8:117.

TYPE LOCALITY: China, Szechwan, Kiatingfu.

DISTRIBUTION: Szechwan and Yunnan (China).

COMMENT: Placed in genus *Antelionomys* by Gromov and Polyakov, 1977:138; but see Corbet, 1978:101.

ISIS NUMBER: 5301410008076001001.

*Eothenomys custos* (Thomas, 1912). Ann. Mag. Nat. Hist., ser. 8, 9:517.

TYPE LOCALITY: China, Yunnan, Atunsi.

DISTRIBUTION: Mountains of Szechwan and Yunnan (China).

COMMENT: Placed in genus *Antelionomys* by Gromov and Polyakov, 1977:138, but see Corbet, 1978:101.

ISIS NUMBER: 5301410008076002001.

*Eothenomys eva* (Thomas, 1911). Abstr. Proc. Zool. Soc. Lond., 90:4.

TYPE LOCALITY: China, Kansu, S.E. of Taochow.

DISTRIBUTION: Mountains of S. Kansu and adjacent Szechwan, Shensi, and Hupei (China).

COMMENT: Regarded by Ellerman and Morrison-Scott, 1951:660, and Gromov and Polyakov, 1977:147, as a synonym of *Clethrionomys rufocanus*; but see Corbet, 1978:102.

*Eothenomys inez* (Thomas, 1908). Abstr. Proc. Zool. Soc. Lond., 63:45.

TYPE LOCALITY: China, Shansi, 12 mi. (19 km) N.W. Kolanchow.

DISTRIBUTION: Shansi, Shensi and perhaps Hopei (China).

COMMENT: Regarded by Ellerman and Morrison-Scott, 1951:660, and Gromov and Polyakov, 1977:147, as a synonym of *Clethrionomys rufocanus*; but see Corbet, 1978:102.

*Eothenomys lemminus* Miller, 1899. Proc. Acad. Nat. Sci. Phila., (1898), p. 369.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Khabarovsk. Krai, Chukotsk. Nat. Okr., Zaliv Sv. Kresta, S.W. of Egvekinom, "Kelsey Station, Plover Bay, Bering Strait".

DISTRIBUTION: Chukotka Peninsula (N.E. Siberia), west to Lena River and south to Amur River (U.S.S.R.).

COMMENT: Formerly included in *Aschizomys*; see comments under *Eothenomys*. Most Russian authors have allocated this species to the genus *Alticola*, usually as a subspecies of *A. macrotis*; see Yudin *et al.*, 1976, [Small mammals of the northern Far East.] Nauka Sibir. Otd. Novosibirsk, 270 pp., Gromov and Polyakov, 1977:133, and Gromov and Baranova, 1981:177. Corbet, 1978:100, provisionally placed it in *Eothenomys*, calling it an "enigmatic species"; Aimi, 1980, Mem. Fac. Sci. Kyoto Univ. Ser. Biol., 8:35-84, provided additional evidence for this allocation, which is followed here. Bykova *et al.*, 1978, Experientia, 34:1146-1148, suggested that there may be more than one Siberian species.

ISIS NUMBER: 5301410008070001001 as *Aschizomys lemminus*.

*Eothenomys melanogaster* (Milne-Edwards, 1871). Nouv. Arch. Mus. Hist. Nat. Paris, 7(Bull.):93.

TYPE LOCALITY: China, Szechwan, Moupin.

DISTRIBUTION: S. China to S. Kansu and Ningsiahui; N. Thailand, and N. Burma; Taiwan.

COMMENT: Includes *fidelis*, *miletus*, and *eleusis*; see Corbet, 1978:101.

ISIS NUMBER: 5301410008076004001 as *E. melanogaster*.

5301410008076003001 as *E. fidelis*.

- Eothenomys olitor* (Thomas, 1911). Abstr. Proc. Zool. Soc. Lond., 100:50.  
 TYPE LOCALITY: China, Yunnan, Chaotungfu.  
 DISTRIBUTION: Yunnan (China).  
 COMMENT: Placed in genus *Antelomys* by Gromov and Polyakov, 1977:138; but see Corbet, 1978:101.  
 ISIS NUMBER: 5301410008076005001.
- Eothenomys proditor* Hinton, 1923. Ann. Mag. Nat. Hist., ser. 9, 11:152.  
 TYPE LOCALITY: China, Yunnan, Likiang Range (27° 30' N.), 13,000 ft. (3962 m).  
 DISTRIBUTION: Mountains of Yunnan and Szechwan (China).  
 COMMENT: Placed in genus *Antelomys* by Gromov and Polyakov, 1977:138; but see Corbet, 1978:101.  
 ISIS NUMBER: 5301410008076006001.
- Eothenomys regulus* (Thomas, 1907). Proc. Zool. Soc. Lond., 1906:863.  
 TYPE LOCALITY: Korea, Mingyong, 110 mi. (177 km) S.E. Seoul.  
 DISTRIBUTION: Hopei (China); Korea.  
 COMMENT: Regarded by Allen, 1940, The Mammals of China and Mongolia, Am. Mus. Nat. Hist., 2(2):621-1350, Ellerman and Morrison-Scott, 1951:666, and Gromov and Polyakov, 1977:147, as a synonym of *Clethrionomys rufocanus*; but see Corbet, 1978:102.
- Eothenomys shanseius* (Thomas, 1908). Proc. Zool. Soc. Lond., 1908:643.  
 TYPE LOCALITY: China, Shansi, 100 mi. (161 km) N.W. Taiyuenfu.  
 DISTRIBUTION: Shansi and perhaps Hopei (China).  
 COMMENT: Regarded by Allen, 1940, The Mammals of China and Mongolia, Am. Mus. Nat. Hist., 2(2):621-1350, Ellerman and Morrison-Scott, 1951:666, and Gromov and Polyakov, 1977:147, as a synonym of *Clethrionomys rufocanus*; but see Corbet, 1978:102.
- Eothenomys smithi* (Thomas, 1905). Ann. Mag. Nat. Hist., ser. 7, 15:493.  
 TYPE LOCALITY: Japan, Honshu, Kobe.  
 DISTRIBUTION: Dogo, Honshu, Shikoku, and Kyushu (Japan).  
 COMMENT: Includes *kageus*; see Ota and Jameson, 1961, Ecology, 42:184-186, and Tanaka, 1971, Jpn. J. Zool., 16:163-176. MLJ by pers. comm. with Y. Imaizumi considers *kageus* a separate species. Placed by Tanaka, 1971, Jpn. J. Zool., 16:163-176, in the monotypic genus *Phaulomys* Thomas 1905; but see Corbet, 1978:102, and Aimi, 1980, Mem. Fac. Sci. Kyoto Univ. Ser. Biol., 8:35-84. Placed by Gromov and Polyakov, 1977:134, in genus *Alticola*, subgenus *Aschizomys*.
- Hyperacrius* Miller, 1896. N. Am. Fauna, 12:54.  
 COMMENT: Reviewed by Phillips, 1969, J. Mammal., 50:457-474. Placed in tribe Clethrionomyini by Gromov and Polyakov, 1977:136. Closely related to *Alticola*, *Eothenomys* and *Dinaromys* (JC). Closely related to *Prometheomys* (WVK). Related either to *Prometheomys* or to *Lagurus* (CAR).  
 ISIS NUMBER: 5301410008077000000.
- Hyperacrius fertilis* (True, 1894). Proc. U.S. Nat. Mus., 17:10.  
 TYPE LOCALITY: India, Kashmir, Pir Panjal Mountains.  
 DISTRIBUTION: Kashmir; N. Pakistan.  
 ISIS NUMBER: 5301410008077001001.
- Hyperacrius wynnei* (Blanford, 1881). J. Asiat. Soc. Bengal, 49:244.  
 TYPE LOCALITY: Pakistan, Punjab, Murree (probably N. of the City).  
 DISTRIBUTION: Kagan and Swat (N. Pakistan).  
 COMMENT: Type locality discussed by Phillips, 1969, J. Mammal., 50:462.  
 ISIS NUMBER: 5301410008077002001.

*Lagurus Gloger*, 1841. Hand. Hilfsb. Nat., 1:97.

REVIEWED BY: M. Andera (MA).

COMMENT: Includes *Lemmiscus*; see Hall, 1981:821. Formerly included *Eolagurus*; see Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):160, who placed *Lagurus* and *Eolagurus* in the tribe Lagurini. Placed in tribe Lagurini with *Alticola* and *Hyperacrius* by CAR. See also Corbet, 1978:116, who included *Eolagurus* in *Lagurus* without comment.

ISIS NUMBER: 5301410008078000000.

*Lagurus curtatus* (Cope, 1868). Abstr. Proc. Acad. Nat. Sci. Philad., p. 2.

REVIEWED BY: M. D. Carleton (MDC).

TYPE LOCALITY: U.S.A., Nevada, Esmeralda Co., Pigeon Spring, Mt. Magruder.

DISTRIBUTION: N.W. and E.C. California to C. Washington, W. North Dakota and N. Colorado (U.S.A.); S.E. Alberta and S.W. Saskatchewan (Canada); in sagebrush steppe and desert.

COMMENT: Thomas, 1912, Ann. Mag. Nat. Hist., 9:401, erected the subgenus *Lemmiscus*; also see Davis, 1939, The Recent Mammals of Idaho, Caxton Printers: Caldwell, Idaho, 400 pp.; Gromov and Polyakov, 1977:176, and MDC considered *Lemmiscus* a distinct genus; but see Hall, 1981:821. Reviewed by Carroll and Genoways, 1980, Mamm. Species, 124:1-6.

ISIS NUMBER: 5301410008078001001.

*Lagurus lagurus* (Pallas, 1773). Reise Prov. Russ. Reichs., 2:704.

TYPE LOCALITY: U.S.S.R., Kazakh. S.S.R., Gur'evsk. Obl., mouth of Ural River.

DISTRIBUTION: Steppes from Ukraine to N. Kazakhstan to W. Mongolia and W. Sinkiang (China).

ISIS NUMBER: 5301410008078002001.

*Lemmus* Link, 1795. Beitr. Naturgesch., 1(2):75.

REVIEWED BY: K. Curry-Lindahl (KCL); M. L. Johnson (MLJ); G. A. Sidorowicz (GAS).

COMMENT: Revised by Rausch and Rausch, 1975, Z. Saugetierk., 40:8-34. Includes *Myopus*; see Chaline and Mein, 1979, and Koenigswald and Martin, in press, Bull. Carnegie Mus. Nat. Hist. Placed in tribe Lemmini by Gromov and Polyakov, 1977:189.

ISIS NUMBER: 5301410008079000000 as *Lemmus*.

5301410008081000000 as *Myopus*.

*Lemmus lemmus* (Linnaeus, 1758). Syst. Nat., 10th ed., 1:59.

REVIEWED BY: M. Andera (MA).

TYPE LOCALITY: Sweden, Lappmark.

DISTRIBUTION: Mountains of Scandinavia and tundra from Lapland to White Sea (U.S.S.R.).

COMMENT: Hybridization with *sibiricus* produced sterile male offspring; see Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., "Nauka," Moscow, pp. 162-167. Also see Krivosheev and Rossolimo, 1966, Byull. Mosk. Ova. Ispyt. Prir. Otd. Biol., 71:5-17, Rausch and Rausch, 1975, Z. Saugetierk., 40:8-34, and Curry-Lindahl, 1980, Der Berglemming *Lemmus lemmus*, 140 pp.; but see Sidorowicz, 1960, 1964, Acta Theriol., 4:53-80, 8:217-226. Type locality, Lappmark, (*sensu* Linnaeus) means mountains of Swedish Lapland (KCL).

ISIS NUMBER: 5301410008079001001.

*Lemmus novosibiricus* Vinogradov, 1924. Nat. Hist., ser. 9, 14:187.

TYPE LOCALITY: U.S.S.R., New Siberian Arch., Kotelnyi Isl.

DISTRIBUTION: New Siberian and Lyakhov Isls. (U.S.S.R.).

COMMENT: Formerly included in *obensis*; see Curry-Lindahl, 1980, Der Berglemming *Lemmus lemmus*, 140 pp.; but also see Sidorowicz, 1964, Acta Theriol., 8:223.

*Lemmus schisticolor* (Lilljeborg, 1844). Ofv. Kongl. Svenska Vet.-Akad. Forhandl. Stockholm, 1:33.

REVIEWED BY: M. Andera (MA).

TYPE LOCALITY: Norway, Gulbrandsdal, Mjosen, near Lillehammer.

DISTRIBUTION: Coniferous forest from Norway and Sweden through Siberia to Kolyma River and Kamchatka (U.S.S.R.), south to the Altai, N. Mongolia, Heilungkiang (China), and the Sikhote Alin Range; perhaps Sakhalin Isl. (U.S.S.R.).

COMMENT: Transferred to *Lemmus* from *Myopus* by Chaline and Mein, 1979.

Koenigswald and Martin, in press, Bull. Carnegie Mus. Nat. Hist., also place this species in *Lemmus* on the basis of the pattern of molar enamel.

ISIS NUMBER: 5301410008081001001 as *Myopus schisticolor*.

*Lemmus sibiricus* (Kerr, 1792). Anim. Kingdom, p. 241.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Yamalo-Nenetsk. Nats. Okr., between Polar Ural Mtns. and lower course of Ob River.

DISTRIBUTION: Siberian tundra from White Sea to Chukotka (N.E. Siberia) and Kamchatka; St. George Isl. (Pribilofs) and Nunivak Isl. (Bering Sea); W. Alaska east to Baffin Isl. and Hudson Bay, south in the Rocky Mtns. to C. British Columbia (Canada).

COMMENT: *L. obensis* is a junior synonym (*L. obensis* is retained as a specific name for *sibiricus* by Gromov *et al.*, 1963, [Mammal Fauna of the U.S.S.R.], 1:1-640, and Flint *et al.*, 1965, [Mammals of the U.S.S.R.], 438 pp.); includes *amurensis*, *nigripes*, and *trimucronatus*; see Rausch, 1953, Arctic, 6:91-148, Krivosheev, 1971, in Tavrovskii *et al.*, [Mammals of Yakutiya], Rausch and Rausch, 1975, Z. Saugetierk., 40:8-34, and Curry-Lindahl, 1980, Der Berglemming *Lemmus lemmus*, 140 pp.; for alternative treatment see Corbet, 1978:97, and Sidorowicz, 1964, Acta Theriol., 8:217-226. *L. amurensis* was retained as a distinct species by Ognev, 1948, [Mammals of the U.S.S.R. and Adj. Count.], vol. 6, Rodents, English Trans., 1963, Gromov *et al.*, 1963, [Mammal Fauna of the U.S.S.R.], 1:1-640, Flint *et al.*, 1965, [Mammals of the U.S.S.R.], 438 pp., and Gromov and Polyakov, 1977:196; while Krivosheev and Rossolimo, 1966, Byull. Mosk. Ova. Ispyt. Prir. Otd. Biol., 71:5-17, and Rubina *et al.*, 1973, in Kontrimavichus, ed., [Biol. Probl. North], 2:77-80, expressed uncertainty about its taxonomic status. Khvorostyanskaya, 1980:40, in Pantelev, ed., [Rodents. Materials All-Union Conf.], Nauka, Moscow, 471 pp., Chernyavskii, 1980, *op cit.* p. 131, and Pokrovskii and Makaranets, 1980, *op cit.* p. 259, provided chromosomal and breeding data supporting specific distinctness. RSH, MLJ and OLR treat *amurensis* as distinct.

ISIS NUMBER: 5301410008079003001 as *L. sibiricus*.

5301410008079002001 as *L. nigripes*.

*Microtus* Schrank, 1798. Fauna Boica, 1(1):72.

REVIEWED BY: M. Andera (MA)(Eurasia); S. R. Leffler (SRL).

COMMENT: Includes, as subgenera or as synonyms, *Agricola*, *Alexandromys*, *Arvalomys*, *Aulacomys*, *Campicola*, *Chilotus*, *Chionomys*, *Euarvicola*, *Iberomys*, *Lasiopodomys*, *Lemmimicrotus*, *Mynomes*, *Orthriomys*, *Stenocranius*, *Sumeriomys*, *Suranomys*, and *Sylvicola*; see Chaline, 1974:448, Corbet, 1978:110, Ellerman and Morrison-Scott, 1951, Walker *et al.*, 1975, 2:845, Van den Brink, 1957, Die Saugetiere Europas, and Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:415-511. There is no consensus concerning limits or validity of many of these taxa. May include *Proedromys* (here considered a distinct genus following Wang *et al.*, 1966, Acta Zootax. Sin., 3:85-91; see Chaline, 1974:448, and Corbet, 1978:110), *Pedomys* (here included in *Pitymys*; see Van der Meulen, 1978, Ann. Carnegie Mus., 47:101-145, and comments under *Pitymys ochrogaster*), and *Herpetomys* (here included in *Pitymys* following Martin, R. A., 1974, in Webb, ed., Pleistocene Mammals of Florida, p. 60, and Repenning, pers. comm. to RSH; see Anderson, 1960). Opinion also differs as to whether *Arvicola* and *Pitymys* should be retained as distinct genera as is done here (following Chaline and Mein, 1979) or considered subgenera of *Microtus*, as in Hall, 1981 (SRL, WDS). Gromov and Polyakov, 1977:322, 327, considered *Chionomys* and *Lasiopodomys* as distinct genera; but also see Hall, 1981:790.

ISIS NUMBER: 5301410008080000000.

*Microtus abbreviatus* Miller, 1899. Proc. Biol. Soc. Wash., 13:13.

REVIEWED BY: M. L. Johnson (MLJ).

TYPE LOCALITY: U.S.A., Alaska, Bering Sea, Hall Isl.

DISTRIBUTION: Hall and St. Matthew Isls. (Alaska, U.S.A.).

COMMENT: Subgenus *Stenocranius*; see Rausch and Rausch, 1968, Z. Saugetierk., 36:65-99. Related to *miurus* of the Alaskan mainland; see Fedyk, 1970, Acta

Theriol., 15:143–152, Nelson, 1931, J. Mammal., 12:311, and Rausch, 1977, in Sokolov, ed., [Adv. Mod. Theriol.], Acad. Sci. U.S.S.R., Nauka, Moscow, p. 169. MLJ considers *miurus* conspecific with *abbreviatus*.

*Microtus agrestis* (Linnaeus, 1761). Fauna Suec., 11(2):11.

TYPE LOCALITY: Sweden, Uppsala.

DISTRIBUTION: Britain, Scandinavia, and France east through Europe and Siberia to Lena River; south to Pyrennes, N. Portugal, N. Yugoslavia, Altai Mtns., Sinkiang (China) (SW), and Lake Baikal.

COMMENT: Subgenus *Microtus*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:496 (*Arvalomys* of Chaline, 1974:440–450). Sometimes regarded as conspecific with *pennsylvanicus*, as by Klimkiewicz, 1970, Mammalia, 34:641–665, but not closely related; see Frank, 1959, Z. Saugetierk., 24:91–93, and Vorontsov and Lyapunova, 1976, in Kontrimavichus, ed., [Beringia in Cenozoic], Acad. Sci. Vladivostok.

ISIS NUMBER: 5301410008080001001.

*Microtus arvalis* (Pallas, 1778). Nova Spec. Quad. Glir. Ord., p. 78.

TYPE LOCALITY: Germany, no exact locality; neotype from U.S.S.R., R.S.F.S.R., Leningrad Obl.

DISTRIBUTION: France and N. Spain east through Europe and Siberia to the upper Yenesei River; south to N. Turkey, Caucasus, Lake Balkash, Sinkiang (China) (SW), and Altai Mtns.; isolates in Guernsey and Orkney Isls.

COMMENT: Subgenus *Microtus*; see Anderson, 1960, Univ. Kans. Publ. Mus. Nat. Hist., 12:181–216. Includes *ilaeus*; see Meier and Yatsenko, 1980, Zool. Zh., 59(2):283–288, who used *kirgisorum* for what was formerly known as *ilaeus*; "*ilaeus*" (now *kirgisorum*) was considered distinct by Corbet, 1978:114, on the basis of evidence of hybrid sterility, also see Meier, 1976, Trans. I Intl. Theriol. Congr., 1:400–401; see also comment under *kirgisorum*. Includes *orcadensis*; see Corbet, 1961, Nature (Lond.), 191:1037–1040. Includes *igmanensis*; see Zivkovic *et al.*, 1975, Arh. Biol. Nauka, 26:123–134, and Corbet, 1978:113. The status of *igmanensis* needs further clarification (SRL); see also comment under *epiroticus*. Type locality of neotype fixed by Meier *et al.*, 1972, Zool. Zh., 51:157–161.

ISIS NUMBER: 5301410008080002001 as *M. arvalis*.

5301410008080033001 as *M. orcadensis*.

*Microtus brandti* (Radde, 1861). Melanges Biol. Acad. St. Petersb., 3:683.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Chitinsk. Obl., near Tarei-Nor (Lake).

DISTRIBUTION: Mongolia, Transbaikalia (U.S.S.R.), Inner Mongolia, Heilungkiang, Kirin, and Hopei (China) (SW).

COMMENT: Subgenus *Lasiopodomys*; see Chaline, 1974, and Chaline and Mein, 1979. Regarded as full genus by Erbaeva, 1976, Trudy Zool. Inst., Leningr., 66:107–116, Gromov and Polyakov, 1977:322, Repenning, 1980, Can. J. Anthro., 1:37–44, and Gromov and Baranova, 1981:214; also see Ognev, 1950, [Mamm. U.S.S.R., Adjac. Count.], Acad. Sci. Moscow, 7:292–293.

ISIS NUMBER: 5301410008080004001.

*Microtus breweri* (Baird, 1858). Mammals, in Repts. Expl. Surv., 8(1):525.

REVIEWED BY: R. H. Tamarin (RHT).

TYPE LOCALITY: U.S.A., Massachusetts, Muskeget Isl.

DISTRIBUTION: Muskeget Isl. (Massachusetts, U.S.A.).

COMMENT: Subgenus *Microtus*; related to *pennsylvanicus* of the adjacent mainland; treated as a full species in a review by Tamarin and Kunz, 1974, Mamm. Species, 45:1–3, but may be conspecific; see Fivush *et al.*, 1975, J. Mammal., 56:272–273.

*Microtus cabreræ* Thomas, 1906. Ann. Mag. Nat. Hist., ser. 7, 17:576.

REVIEWED BY: K. F. Koopman (KFK).

TYPE LOCALITY: Spain, Madrid Prov., Sierra de Guadarrama, near Rascafria.

DISTRIBUTION: Spain; Portugal (KFK).

COMMENT: Subgenus *Iberomys*; regarded as a synonym of *guentheri*, by Van den Brink, 1957, Die Saugetiere Europas, and as a synonym of *socialis* by Van den Brink, 1972, Die Saugetiere Europas, 2nd ed., but not by Niethammer *et al.*, 1964, Bonn.

Zool. Beitr., 15:127-148, and Corbet, 1978:114, who also included *dentatus* in this species, as is done here. Chaline, 1974, placed *dentatus* in *Iberomys*, but *cabrarae* in *Arvalomys*. Placed "conf. *Microtus*" by Gromov and Polyakov, 1977:298.

ISIS NUMBER: 5301410008080005001.

*Microtus californicus* (Peale, 1848). Mammalia and Ornithology in U.S. Expl. Exped..., 8:46.

REVIEWED BY: R. E. Barry, Jr. (REB); J. Ramirez-Pulido (JRP); G. Urbano-V. (GUV).

TYPE LOCALITY: U.S.A., California, Santa Clara Co., San Francisco Bay, probably at San Francisquito Creek, near Palo Alto.

DISTRIBUTION: S.W. Oregon, south through California (U.S.A.) to N. Baja California (Mexico).

COMMENT: Subgenus *Microtus*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:496; Gill, 1980:105-117, in Vorontsov and Van Brink, eds., Animal Genetics and Evolution, Junk, The Hague, 353 pp., found evidence of sterility in crosses between *M. c. californicus* and *M. c. stephensi*.

ISIS NUMBER: 5301410008080006001.

*Microtus canicaudus* Miller, 1897. Proc. Biol. Soc. Wash., 11:67.

TYPE LOCALITY: U.S.A., Oregon, Polk Co., McCoy.

DISTRIBUTION: Restricted to Willamette Valley, Oregon, and adjacent Washington (U.S.A.).

COMMENT: Subgenus *Microtus*; closely related to *montanus* and formerly considered conspecific; Hsu and Johnson, 1970, J. Mammal., 51:824-826, provided evidence of specific distinctness. See Maser and Storm, 1970, A Key to the Microtinae of the Pacific Northwest, O.S.U. Book Stores, Corvallis, Oregon, for status and distribution.

*Microtus chrotorrhinus* (Miller, 1894). Proc. Boston Soc. Nat. Hist., 26:190.

REVIEWED BY: R. E. Barry, Jr. (REB).

TYPE LOCALITY: U.S.A., New Hampshire, Coos Co., Mt. Washington, head of Tuckerman Ravine, 5300 ft. (1615 m).

DISTRIBUTION: S. Labrador southwest through S. Quebec and Ontario (Canada) to N. Minnesota; south in Appalachians to North Carolina (U.S.A.).

COMMENT: Subgenus *Microtus*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:496.

ISIS NUMBER: 5301410008080008001.

*Microtus clarkei* Hinton, 1923. Ann. Mag. Nat. Hist., ser. 9, 11:158.

TYPE LOCALITY: China, Yunnan, Kui-chiang-Salween divide (28° N.), 11,000 ft. (3353 m).

DISTRIBUTION: Mountains of Tibet (SW) and Yunnan (China) and N. Burma.

COMMENT: Perhaps subgenus *Lasiopodomys*, and related to *M. fortis* (RSH); *Pitymys* according to SW.

ISIS NUMBER: 5301410008080009001.

*Microtus coronarius* Swarth, 1911. Univ. Calif. Publ. Zool., 7:131.

TYPE LOCALITY: U.S.A., Alaska, Coronation Isl., Egg Harbor.

DISTRIBUTION: S.E. Alaska; Coronation, Forrester, and Warren Isls. (U.S.A.).

COMMENT: Subgenus *Chionomys*; see Anderson, 1960, or *Arvalomys* (= *Microtus*); see Chaline and Mein, 1979. Closely related to *longicaudus*; see Hall, 1981:809; also see comment under *M. longicaudus*.

ISIS NUMBER: 5301410008080010001.

*Microtus epiroticus* (Ondrias, 1966). Saugetiерk. Mitt., 14 (Suppl):59.

TYPE LOCALITY: Greece, Epirus, Perama, near Ionnina.

DISTRIBUTION: C. and E. Europe, from Gulf of Finland south to Yugoslavia, N.W. Greece and Caucasus Mtns., east to Ural Mtns.

COMMENT: Subgenus *Microtus*; see Chaline and Mein, 1979; formerly included in *arvalis*, but differentiated chromosomally (see Malygin and Orlov, 1974, Zool. Zh., 53), and the bacula differ (see Aksenova and Tarasov, 1974, Zool. Zh., 53:609-615). Originally named *subarvalis* Meier, Orlov and Skholl, 1972 (Zool. Zhur., 51:157-161), but this name is preoccupied by *subarvalis* (Heller, 1930) (a

fossil); see Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):308. This is the senior synonym of *Microtus subarvalis*; see Kral *et al.*, 1980, Prirodoved. Pr. Ustaviva. Cesk. Acad. Ved. Brno, 14(9):1-29. For evidence of specific distinctness of *epiroticus*, see also Ruzic *et al.*, 1975, Arh. Poljopr. Nauka, 28:153-160.

*Microtus evoronensis* Kovalskaya and Sokolov, 1980. Zool. Zh., 59(9):1410.

TYPE LOCALITY: U.S.S.R., Khabarovsk. Krai, Lake Evoron basin, Devyatka River.

DISTRIBUTION: Known only from the type locality. Probably more widely distributed in Khabarovsk. Krai (U.S.S.R.).

COMMENT: Provisionally placed in the subgenus *Microtus* (RSH, pers. comm. from V. G. Orlov). Considered a distinct species by Kovalskaya and Sokolov, 1980, Zool. Zh., 59(9):1409-1416, based on chromosomal differences and hybrid sterility in crosses with *maximowiczii*.

*Microtus fortis* Buchner, 1889. Sci. Res. Przewalski's Exp. Cent. Asia. Zool., ser. 1, 3:99.

TYPE LOCALITY: China, Inner Mongolia, Ordos Desert, Huang Ho Valley, Sujan.

DISTRIBUTION: Transbaikalia and Amur region (U.S.S.R.) south to lower Yangtse Valley (China).

COMMENT: Subgenus *Lasiopodomys*; see Chaline, 1974, and Chaline and Mein, 1979; but also see Ognev, 1950, Mamm. U.S.S.R., Adjac. Count. Engl. transl., 1964:1-626, who placed this species in *Arvicola*; Anderson, 1960, Gromov and Polyakov, 1977:290, Meier, 1978, Trudy Zool. Inst., Leningr., 75:3-62, and Gromov and Baranova, 1981:208, placed it in the subgenus *Microtus*. Includes *calamorum*; reviewed by Meier, 1978, who considered *fortis* close to *maximowiczii* and *sachalinensis*.

ISIS NUMBER: 5301410008080012001.

*Microtus gregalis* (Pallas, 1778). Nova Spec. Quad. Glir. Ord., p. 238.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Tomsk. Obl., E. of Chulym River.

DISTRIBUTION: Palearctic tundra from White Sea, east to Anadyr region (U.S.S.R.); mountains and steppes of N.C. and S. Siberia from S. Urals to upper tributaries of Amur River, and S. to Pamir (U.S.S.R.), Tien Shan (U.S.S.R. and China), and Altai (U.S.S.R. and Mongolia) Mtns., N. Mongolia, N.E. China, and probably North Korea.

COMMENT: Subgenus *Stenocranium*; see Anderson, 1960:200; see comments under *miurus*.

ISIS NUMBER: 5301410008080013001.

*Microtus gud* Satunin, 1909. Izv. Kavkas. Mus., 4:272.

TYPE LOCALITY: U.S.S.R., Gruzinsk. S.S.R. (Georgia), Gudauri, S. of Krestovyi Pass (Caucasus Range).

DISTRIBUTION: Caucasus Mtns. (U.S.S.R. and N.E. Turkey).

COMMENT: Subgenus *Chionomys* of Anderson, 1960:202; related to *nivalis* and *roberti*; see Gromov and Polyakov, 1977, [Voles (Microtinae), Fauna U.S.S.R.], Nauka, Moscow and Leningrad, 3(8):1-502, and Corbet, 1978:112. Chaline, 1974, included *Chionomys* within subgenus *Suranomys*, but Gromov and Polyakov, 1977:327, and Gromov and Baranova, 1981:216, considered *Chionomys* a full genus.

ISIS NUMBER: 5301410008080015001.

*Microtus guentheri* (Danford and Alston, 1880). Proc. Zool. Soc. Lond., 1880:62.

REVIEWED BY: G. Storch (GS).

TYPE LOCALITY: Turkey, Maras Prov., Taurus Mtns., near Maras (=Marash).

DISTRIBUTION: S. Bulgaria; S. Yugoslavia; E. Greece; Turkey; and N. Lebanon.

COMMENT: Subgenus *Iberomys*; see Van den Brink, 1957, Die Säugetiere Europas; Chaline and Mein, 1979:102, or subgenus *Sumeriomys*; see Gromov and Polyakov, 1977:283. Not a synonym of *socialis*, as treated by Corbet, 1978:112; see Morlok, 1978, Senckenberg. Biol., 59:155-162; revised by Felten *et al.*, 1971, Senckenberg. Biol., 52:393-424. Ranck, 1968, The Rodents of Libya, Bull. U.S. Nat. Mus., 275:1-264, included *mustersi* in this species, but Kock *et al.*, 1972, Z. Säugetierk., 37:204-229 included *mustersi* in *irani*.



*Microtus irani* Thomas, 1921. J. Bombay Nat. Hist. Soc., 27:581.

REVIEWED BY: G. Storch (GS).

TYPE LOCALITY: Iran, Fars Prov., Shiraz, Bagh-i-Rezi (=Bagh-e-Razi).

DISTRIBUTION: E. Turkey; N. Syria; Lebanon; Israel; W. Jordan; Cyrenaica in Libya; N. Iraq; W. and N. Iran; Turkmenia (U.S.S.R.).

COMMENT: Subgenus *Sumeriomys* of Argyropulo, 1933, Z. Saugetierk., 8:180-182 (in part *Suranomys* of Chaline, 1974); see Gromov and Polyakov, 1977:283; includes *mustersi*; not a subspecies of *socialis* as treated by Corbet, 1978:112; see Kock *et al.*, 1972, Z. Saugetierk., 37:204-229; and Morlok, 1978, Senckenberg. Biol., 59:155-162; includes *paradoxus* (OLR, GS); see Gromov and Polyakov, 1977:283.

*Microtus kikuchii* Kuroda, 1920. Zool. Mag. (Tokyo), 32:36.

TYPE LOCALITY: Taiwan, Mt. Morrison.

DISTRIBUTION: Taiwan.

COMMENT: Subgenus *Microtus*; see Ellerman and Morrison-Scott, 1951:702, and Gromov and Polyakov, 1977:294. Thought by Zimmermann, 1964, Mitt. Zool. Mus. Berlin, 40:87-140, to be related to *maximowiczii* of mainland Asia.

ISIS NUMBER: 5301410008080019001.

*Microtus kirgisorum* (Ognev, 1950). [Mamm. U.S.S.R., Adjac. Count.], Acad. Sci. Moscow, vol. 7, p. 181.

TYPE LOCALITY: U.S.S.R., Kazakh. S.S.R., Dzhabulsk. Obl., Kirgizsk. (=Aleksandrovsk.) Ridge, Tuyuk Valley.

DISTRIBUTION: S. Kazakhstan, Kirgiziya, Tadzhikistan, and S.E. Turkmenia (U.S.S.R.); probably N. Afghanistan.

COMMENT: Subgenus *Microtus*; see Ognev, 1950. Considered a synonym of *ilaeus*, (= *M. arvalis ilaeus*) by Corbet, 1978:114, and Malygin and Deulin, 1979, Zool. Zh., 58:731-741; but Meier and Yatsenko, 1980, Zool. Zh., 59(2):283-288, provided evidence of specific distinctness and validity of the name. See also comment under *arvalis*.

*Microtus longicaudus* (Merriam, 1888). Am. Nat., 22:934.

REVIEWED BY: R. E. Barry, Jr. (REB).

TYPE LOCALITY: U.S.A., South Dakota, Custer Co., Custer (Black Hills), 5500 ft. (1676 m).

DISTRIBUTION: Rocky Mtns., from N. Yukon and E. Alaska south to S. New Mexico and Arizona, and adjacent foothills and plains; east to W. South Dakota; west to N.W. Pacific Coast (U.S.A.).

COMMENT: Subgenus *Chionomys*, as in Anderson, 1960; or *Microtus* (= *Arvalomys*), as in Chaline, 1974, and Gromov and Polyakov, 1977:317. This widespread species is in need of taxonomic revision (SRL). Revised in part by Long, 1965, Univ. Kans. Publ. Mus. Nat. Hist., 14:493-758. Probably includes *coronarius*, an insular derivative (RSH, SRL).

ISIS NUMBER: 5301410008080021001.

*Microtus mandarinus* (Milne-Edwards, 1871). Rech. Mamm., p. 129.

TYPE LOCALITY: China, Shansi, probably near Saratsi.

DISTRIBUTION: Korea; Hopei, Kiangsue, Anwei, Shensi, Shansi, Inner Mongolia (China) (SW); N. Mongolia; Transbaikalia (U.S.S.R.).

COMMENT: Subgenus *Lasiopodomys*; see Chaline, 1974. Includes *vinogradovi*; see Corbet, 1978:116.

ISIS NUMBER: 5301410008080023001.

*Microtus maximowiczii* Schrenk, 1859. Reisen und Forsch. in Amur-Lande St. Petersburg., 1:140.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Chitinsk. Obl., upper Amur region, mouth of Omutnaya River.

DISTRIBUTION: Lake Baikal to upper Amur region (U.S.S.R.), E. Mongolia, and N.E. China.

COMMENT: Subgenus *Microtus*; (= *Arvalomys*), see Chaline, 1974, and Gromov and Polyakov, 1977:291. Includes *ungurensis*; formerly included *fortis*; see Corbet, 1978:114. Reviewed by Meier, 1978, Trudy Zool. Inst., Leningr., 75:3-62, and Orlov *et al.*, 1974, Zool. Zh., 53:1391-1396. See comments under *kikuchii*, *montebelli*, and *sachalinensis*.

ISIS NUMBER: 5301410008080046001 as *M. ungurensis*.

*Microtus mexicanus* (Saussure, 1861). Rev. Mag. Zool. Paris, ser. 2, 13:3.

REVIEWED BY: J. Ramirez-Pulido (JRP); G. Urbano V. (GUV).

TYPE LOCALITY: Mexico, Puebla, Mt. Orizaba.

DISTRIBUTION: Extreme S. Utah and S.W. Colorado (U.S.A.), south in mountains to C. Oaxaca (Mexico).

COMMENT: Subgenus *Microtus*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:415-511, and Gromov and Polyakov, 1977:319. Hooper and Hart, 1962, Misc. Publ. Mus. Zool. Univ. Mich., No. 120, 68 pp., placed this species in genus *Microtus*, subgenus *Pitymys*, closely allied with *ochrogaster* and *pinetorum* (RSH), but the dental pattern shows no resemblance to *Pitymys* (CAR). Includes *fulviventris*; see Musser, 1964, Occas. Pap. Mus. Zool. Univ. Mich., 636:122.

ISIS NUMBER: 5301410008080024001.

*Microtus middendorffi* (Poliakov, 1881). Mem. Acad. Imp. Sci. St. Petersburg., 39(2):70.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Krasnoyarsk. Krai, Taimyr Peninsula.

DISTRIBUTION: N.C. and N.E. Siberia, from the Polar Ural Mtns. to the Kolyma River, and N. of Magadan.

COMMENT: Subgenus *Microtus*; see Matthey and Zimmerman, 1961, Rev. Suisse Zool., 68:63-72; includes *hyperboreus*, see Gileva, 1972, Dokl. Akad. Nauk S.S.S.R., 203:689-692, and Pokrovskii *et al.*, 1975, [Population fluctuations of animals], Acad. Sci., Sverdlovsk, p. 39-62; see also Corbet, 1978:116; but see Gromov and Polyakov, 1977:312, and Gromov and Baranova, 1981:214; OLR also retains *hyperboreus* as a separate species.

ISIS NUMBER: 5301410008080025001 as *M. middendorffi*.

5301410008080016001 as *M. hyperboreus*.

*Microtus millicens* Thomas, 1911. Abstr. Proc. Zool. Soc. Lond., 100:49.

TYPE LOCALITY: China, Szechwan, Weichoe, Si-ho River.

DISTRIBUTION: Mountains of Szechwan and Tibet (China) (SW).

COMMENT: Subgenus *Lasiopodomys*, according to Chaline, 1974, but "conf. *Neodon*" according to Gromov and Polyakov, 1977:257. This is apparently one of the least known species of *Microtus* (SRL).

ISIS NUMBER: 5301410008080026001.

*Microtus miurus* Osgood, 1901. N. Am. Fauna, 21:64.

TYPE LOCALITY: U.S.A., Alaska, Cook Inlet, Turnagain Arm, Mtns. near Hope City, head of Bear Creek.

DISTRIBUTION: W. Alaska (U.S.A.) east to extreme W. Northwest Territories and south to S.W. Yukon (Canada).

COMMENT: Subgenus *Stenocranius*; see Anderson, 1960:200; placed by Rausch, 1964, Z. Saugetierk., 29:343-358, and Rausch and Rausch, 1968, Z. Saugetierk., 33:65-99, in *gregalis*; reinstated as a species by Fedyk, 1970, Acta Theriol., 15:143-152. Regarded as conspecific with *abbreviatus* by MLJ.

*Microtus mongolicus* (Radde, 1861). Melanges Biol. Acad. St. Petersburg., 3:681.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Chitinsk. Obl., Omutnaya River (tributary to Amur River).

DISTRIBUTION: N.E. China (SW), N. Mongolia, and Transbaikalia (U.S.S.R.).

COMMENT: Subgenus *Microtus* (= *Arvalomys* Chaline, 1974); see Meier, 1978, Trudy Zool. Inst., Leningr., 75:3-62; regarded by Ellerman and Morrison-Scott, 1951:697, as a synonym of *arvalis*; separated by Malygin and Orlov, 1974, Zool. Zh., 53:616-622, and Malygin, 1978, Abstr. Pap., II Congr. Theriol. Internat. Brno, p. 331.

- Microtus montanus* (Peale, 1848). *Mammalia and Ornithology in U.S. Expl. Exped...*, 8:44.  
REVIEWED BY: R. E. Barry, Jr. (REB).  
TYPE LOCALITY: U.S.A., California, Siskiyou Co., headwaters of Sacramento River, near Mt. Shasta.  
DISTRIBUTION: British Columbia (Canada) and C. Montana south to New Mexico and Arizona, west through the Cascade Mtns. and Sierra Nevada (U.S.A.).  
COMMENT: Subgenus *Microtus*; see Anderson, 1960:204; two karyotypically different forms are known, which may represent distinct species; see Judd *et al.*, 1980, *J. Mammal.*, 61:109-113. Revised by Anderson, 1959, *Univ. Kans. Publ. Mus. Nat. Hist.*, 9:415-511.  
ISIS NUMBER: 5301410008080027001.
- Microtus montebelli* (Milne-Edwards, 1872). *Rech. Mamm.*, p. 285.  
TYPE LOCALITY: Japan, Honshu, Fusi-yama.  
DISTRIBUTION: Honshu, Sado, and Kyushu Isls. (Japan); Sikotan Isl., Kuriles (U.S.S.R.).  
COMMENT: Subgenus *Microtus* (= *Arvalomys*, Chaline, 1974); see Chaline and Mein, 1979:103; thought by Zimmermann, 1964, *Mitt. Zool. Mus. Berlin*, 40:87-140, to be related to *maximowiczii* of mainland Asia. Sokolov, 1954, *Zool. Zh.*, 33:947-950, provided distribution information.  
ISIS NUMBER: 5301410008080028001.
- Microtus mujanensis* Orlov and Kovalskaya, 1978. *Zool. Zh.*, 57:1224.  
TYPE LOCALITY: U.S.S.R., Buryat-Mongolsk. A.S.S.R., Bauntovsk. Obl., Miyha River at Miyha.  
DISTRIBUTION: Known only from the type locality.  
COMMENT: Subgenus *Microtus*; (RSH from V. G. Orlov, pers. comm.); Orlov and Kovalskaya, 1978, *Zool. Zh.*, 57:1224-1232, described this species as morphologically close to *maximowiczii*, but the species are karyotypically different and F1 hybrids are sterile (SRL). Gromov and Baranova, 1981:209, indicated that the name is based on an earlier publication (Orlov and Kovalskaya, 1975, [Systematics and cytogenetics of mammals], Moscow, p. 32); which may be a *nomen nudum* (RSH).
- Microtus nesophilus* V. Bailey, 1898. *Science*, n.s., 8:783.  
REVIEWED BY: R. E. Barry, Jr. (REB).  
TYPE LOCALITY: U.S.A., New York, Suffolk Co., Great Gull Isl. off E. tip of Long Island.  
DISTRIBUTION: Great and Little Gull islands, off Long Island, New York (U.S.A.).  
COMMENT: Subgenus *Microtus*; closely related to *pennsylvanicus*; to which Youngman, 1967, *J. Mammal.*, 48:586, referred it; now extinct; see Hall, 1981:796.
- Microtus nivalis* (Martins, 1842). *Rev. Zool. Paris*, p. 331.  
TYPE LOCALITY: Switzerland, Bernese Oberlander, Faulhorn.  
DISTRIBUTION: Discontinuous, mostly montane, from Spain through the Alps, Appennine, Tatra, Carpathian, and Balkan ranges to Turkey, Palestine, Caucasus, Elburz, Zagros, and Kopet Dag Mtns.  
COMMENT: Subgenus *Chionomys*; see Anderson, 1960, or *Suranomys* Chaline, 1974; Gromov and Polyakov, 1977:327, considered *Chionomys* a full genus. Van der Meulen, 1978, *Ann. Carnegie Mus.*, 47:140, considered *Suranomys* a junior synonym of *Chionomys* (LDM). Related to *gud* and *roberti*, but all three occur in the Caucasus. Peshev, 1970, *Mammalia*, 34:252-268, showed that further study is needed of the populations now included in this species (SRL).  
ISIS NUMBER: 5301410008080029001.
- Microtus oaxacensis* Goodwin, 1966. *Am. Mus. Novit.*, 2243:1-4.  
REVIEWED BY: J. Ramirez-Pulido (JRP); G. Urbano V. (GUV).  
TYPE LOCALITY: Mexico, Oaxaca, Ixtlan Dist., Tarasbundi Ranch, near Vista Hermosa, 5000 ft. (1524 m).  
DISTRIBUTION: Mountains of N.C. Oaxaca (vic. of Vista Hermosa, Mexico).  
COMMENT: Subgenus undetermined (RSH). Goodwin, 1966, *Am. Mus. Novit.*, 2243:1-4, stated only that this species is distinct from *fulviventris* and *umbrosus*; his illustrations would place the species in the subgenus *Microtus* (SRL). Martin, R. A., 1974, in Webb, ed., *Pleistocene Mammals of Florida*, p. 60, placed this species in the genus *Pitymys* (LDM).  
ISIS NUMBER: 5301410008080030001.

*Microtus oeconomus* (Pallas, 1776). Reise Prov. Russ. Reichs., 3:693.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Omsk. Obl., Ishim Valley.

DISTRIBUTION: N. Palearctic, from Scandinavia and the Netherlands east to Chukotka (U.S.S.R.); south to S.E. Germany, Hungary, Ukraine, Kazakhstan, Tibet, Szechwan, and Heilungkiang (China) (SW), and Ussuri region; Kurile Islands and Sakhalin; St. Lawrence Isl. (Bering Sea); Alaska (U.S.A.); Yukon and Northwest Territories (Canada).

COMMENT: Subgenus *Sumeriomys* (= *Suranomys* Chaline, 1974), see Argyropulo, 1933, Z. Säugetierk., 8:180-182; or *Microtus*; see Gromov and Polyakov, 1977:295, and Gromov and Baranova, 1981:209. The taxon *limnophilus*, an isolate described from the Tsaidam, Tsinghai, China, is usually assigned to this species (see Corbet, 1978:115), but may be a distinct species; see Orlov *et al.*, 1978, [Geogr. and Dynamics of Plants and Anim. in the Mongolian People's Republic], p. 149-164; also see Sokolov and Orlov, 1980:151, who included Sinkiang, Kansu, N.W. China, and W. Mongolia in the distribution of *limnophilus*, which they considered a distinct species. Includes *ratticeps*; see Corbet, 1978:115. Ognev, 1950, [Mammals of the U.S.S.R. and Adj. Count.], Vol. 7, Rodents, Engl. Trans., 1964:1-626, and Ellerman, 1941, differed in the name used for this species; see Hall, 1981:805. Ognev's arguments for *ratticeps* are convincing, but would require nomenclatural reorganization in two subgenera. This problem might be best submitted to the ICZN for resolution (SRL).

ISIS NUMBER: 5301410008080032001.

*Microtus oregoni* (Bachman, 1839). J. Acad. Nat. Sci. Phila., 8:60.

REVIEWED BY: R. E. Barry, Jr. (REB).

TYPE LOCALITY: U.S.A., Oregon, Clatsop Co., Astoria.

DISTRIBUTION: Extreme S. British Columbia south to N. California, along Pacific Coast of U.S.A.

COMMENT: Subgenus *Chilotus*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:415-511; and Anderson, 1960. Included by Chaline, 1974, in *Suranomys*. Reviewed by Maser and Storm, 1970, A key to Microtinae of the Pacific Northwest, O.S.U. Book Stores, Corvallis, Oregon.

ISIS NUMBER: 5301410008080034001.

*Microtus pennsylvanicus* (Ord, 1815). In Guthrie, A new geogr., hist., comml., grammar... Philadelphia, 2nd Amer. ed., 2:292.

REVIEWED BY: R. E. Barry, Jr. (REB); J. Ramirez-Pulido (JRP).

TYPE LOCALITY: U.S.A., Pennsylvania, "meadows below Philadelphia."

DISTRIBUTION: North America from Newfoundland to W. Alaska, north into tundra zone, south to Georgia, N. Great Plains, S. Rocky Mtns. (U.S.A.), isolated population in N. Chihuahua (Mexico).

COMMENT: Subgenus *Microtus*; see Anderson, 1960. Includes *chihuahuensis*; see Bradley and Cockrum, 1968, Am. Mus. Novit., 2325:3-7. Klimkiewicz, 1970, Mammalia, 34:640-665, suggested that *pennsylvanicus* is conspecific with *agrestis*. This species requires review over its entire range and comparison with related Old and New World species (SRL). Closely related insular forms, such as *breweri*, *provectus* (here included in *pennsylvanicus*), *nesophilus* and others may best be considered subspecies; see Chamberlain, 1954, J. Mammal., 35:587, Fivush *et al.*, 1975, J. Mammal., 56:272, and Wheeler, 1956, Evolution, 10:176-186. Hall, 1981, considered *breweri* and *nesophilus* distinct species and *provectus* a subspecies of *pennsylvanicus*, whereas Anderson, 1959:496, afforded all full specific status, without elaborating; see comments under *breweri* and *nesophilus*. Reviewed by Reich, 1981, Mamm. Species, 159:1-8. See Anderson and Hubbard, 1971, Am. Mus. Novit., 2460:1-8, for discussion of distribution.

ISIS NUMBER: 5301410008080035001.

*Microtus richardsoni* (DeKay, 1842). Zoology of New York, Part I, Mammals, p. 91.

REVIEWED BY: M. L. Johnson (MLJ).

TYPE LOCALITY: Canada, Alberta, vic. Jasper House, "Near the foot of the Rocky Mountains."

DISTRIBUTION: N. Rocky Mtns., from S. British Columbia and S.W. Alberta (Canada) to C. Wyoming and Utah, and in Cascade Mtns. from S. British Columbia, south through Oregon (U.S.A.).

COMMENT: Allocated by Hooper and Hart, 1962, Misc. Publ. Zool. Univ. Mich. Mus., No. 120, 68 pp., Jannett, 1974, Am. Midl. Nat., 92:230-234, Corbet and Hill, 1980:161, and others to *Arvicola*; Chaline and Mein, 1979, Repenning, 1979, Abstr. Pap. Geol. Soc. Am., and Martin, R. A., 1979, Evol. Monogr., 2:30, considered this vole to have arisen in North America and to belong in *Microtus (Aulacomys)* (MLJ, CAR). The development of the highly derived molar enamel pattern found in this form requires an early immigration and long independent history; a separate derivation from *Allophaiomys* seems more likely (LDM).

ISIS NUMBER: 5301410008069001001 as *Arvicola richardsoni*.

*Microtus roberti* Thomas, 1906. Ann. Mag. Nat. Hist., ser. 7, 17:418.

TYPE LOCALITY: Turkey, Pontus Prov., Sumila, 30 mi. (48 km) S. of Trebizond (=Trabzon).

DISTRIBUTION: Caucasus Mtns. (U.S.S.R. and N.E. Turkey).

COMMENT: Subgenus *Chionomys*; see Anderson, 1960:202; related to *gud* and *nivalis* (RSH). Chaline, 1974, included *Chionomys* within the subgenus *Suranomys*, but Gromov and Polyakov, 1977:327, regarded *Chionomys* as a full genus.

ISIS NUMBER: 5301410008080038001.

*Microtus sachalinensis* Vasin, 1955. Zool. Zh., 34:427-431.

TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Sakhalin Isl., Poronaisk Dist., Olen River.

DISTRIBUTION: Sakhalin Isl. (U.S.S.R.).

COMMENT: Subgenus *Microtus*; see Gromov and Polyakov, 1977:292. Related to *maximowiczii* of mainland Asia; see Meier, 1978, Trudy Zool. Inst., Leningr., 75:3-62, loc. cit., 79:85-90, who provided evidence of specific status.

*Microtus socialis* (Pallas, 1773). Reise Prov. Russ. Reichs., 2:705.

REVIEWED BY: K. F. Koopman (KFK).

TYPE LOCALITY: U.S.S.R., Kazakh. S.S.R., probably Gur'evsk Obl., between Volga and Ural rivers.

DISTRIBUTION: Palearctic steppe from Dneper River and Crimea east to Lake Balkhash (U.S.S.R.) and N.W. Sinkiang (China) (KFK).

COMMENT: Subgenus *Sumeriomys* (in part, *Suranomys* of Chaline, 1974); see Gromov and Polyakov, 1977:281. Corbet, 1978:112, included *guentheri* and *irani*; but see Kock *et al.*, 1972, Z. Saugetierk., 37:204-229, Morlok, 1978, Senckenberg. Biol., 59:155-162, and Gromov and Polyakov, 1977:283. Gromov and Baranova, 1981:210, considered *irani* a subspecies of *socialis*. Ognev, [1950, Mamm. U.S.S.R., Adjac. Count.], Vol. 7, Rodents, Engl. Trans., Ognev, 1964:1-626, proposed a close relationship between *socialis* and *Microtus (Chilotus) oregoni*. See also comments under *guentheri* and *irani*.

ISIS NUMBER: 5301410008080041001.

*Microtus townsendii* (Bachman, 1839). J. Acad. Nat. Sci. Phila., 8:60.

TYPE LOCALITY: U.S.A., Oregon, Multnomah Co., Wappatoo (Sauvie) Isl. in lower Columbia River, near mouth of Willamette River.

DISTRIBUTION: Vancouver Isl.; extreme S.W. British Columbia (Canada) south to N. California, along Pacific coast of U.S.A.

COMMENT: Subgenus *Microtus*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:415-511, and Anderson, 1960, Univ. Kans. Publ. Mus. Nat. Hist., 12:181-216.

Reviewed by Maser and Storm, 1970, A key to Microtinae of the Pacific Northwest, O.S.U. Book Stores, Corvallis, Oregon.

ISIS NUMBER: 5301410008080043001.

*Microtus transcaspicus* Satunin, 1905. Izv. Kavkas. Mus., 2:57-60.

TYPE LOCALITY: U.S.S.R., Turkmen S.S.R., Ashkhabadsk. Obl., Kopet-Dag Mts., Chuli Valley, near Ashkhabad.

DISTRIBUTION: Turkmenia, from Caspian Sea east to N. Afghanistan; south to N. Iran.

COMMENT: Subgenus *Microtus*; see Aksenova, 1978, Trudy Zool. Inst., Leningr., 79:91-101. Meier, 1974, Trans. I Intl. Theriol. Congr., 1:400-401., provided evidence of specific distinctness, but see Ognev, 1950, [Mammals of the U.S.S.R. and Adj. Count.], Vol. 7, Rodents, Engl. Trans., 1964:1-626, who considered this a subspecies of *arvalis*. Provisionally includes *khorkoutensis*; see Corbet, 1978:114; reviewed by Malygin, 1978, Zool. Zh., 67(7):1062-1073.

ISIS NUMBER: 5301410008080044001.

*Microtus umbrosus* Merriam, 1898. Proc. Biol. Soc. Wash., 12:107.

REVIEWED BY: J. Ramirez-Pulido (JRP); G. Urbano-V. (GUV).

TYPE LOCALITY: Mexico, Oaxaca, Mt. Zempoaltepec, 8200 ft. (2499 m).

DISTRIBUTION: Known only from the vicinity of the type locality.

COMMENT: This is the only species in the subgenus *Orthriomys*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:415-511. Martin, R. A., 1974, in Webb, ed., Pleistocene Mammals of Florida, p. 61, suggested that this species "may eventually" be included in *Neodon*.

ISIS NUMBER: 5301410008080045001.

*Microtus xanthognathus* (Leach, 1815). Zool. Misc., 1:60.

REVIEWED BY: R. E. Barry, Jr. (REB).

TYPE LOCALITY: Canada, Manitoba, Ft. Churchill?, "Hudson Bay."

DISTRIBUTION: C. coast of Hudson Bay in Manitoba (Canada) to C. Alaska (U.S.A.) and N.E. British Columbia (Canada).

COMMENT: Subgenus *Microtus*; see Anderson, 1959, Univ. Kans. Publ. Mus. Nat. Hist., 9:415-511. Anderson, 1960, Univ. Kans. Publ. Mus. Nat. Hist., 12:192, suggested that this species may be most closely related to *chrotorrhinus*; dental characters indicate specific distinctness (SRL), as do size differences (REB); see also Guilday et al., 1978, Bull. Carnegie Mus. Nat. Hist., 11:1-67.

ISIS NUMBER: 5301410008080047001.

*Neofiber* True, 1884. Science, 4:34.

COMMENT: Chaline and Mein, 1979, and Kretzoi, 1969, Vert. Hungar. (Budapest), 11:155-193, placed this genus and *Ondatra*, in the tribe Ondatrini, as does CAR. However, WVK places them in separate tribes or subfamilies based on differences in the fossil history and the pattern of enamel on the molars; see Koenigswald, 1980, Abh. Senckenb. Naturforsch. Ges., 539. Martin, L. D., 1975, in Smith and Friedland, eds., Studies on the Cenozoic Paleontology and Stratigraphy, p. 109, and Martin, L. D., 1979, Trans. Nebr. Acad. Sci., 7:91-100, came to a similar conclusion based on dental characters, and because the similarity between the two genera decreases in the earlier members of the lineages. Placed by Gromov and Polyakov, 1977:336, as genus *incertae sedis*.

ISIS NUMBER: 5301410008082000000.

*Neofiber alleni* True, 1884. Science, 4:34.

TYPE LOCALITY: U.S.A., Florida, Brevard Co., Georgiana.

DISTRIBUTION: S. and E. Florida; extreme S.E. Georgia (U.S.A.).

COMMENT: Revised by Schwartz, 1953, Occas. Pap. Mus. Zool. Univ. Mich., 547:1-27.

Reviewed by Birkenholz, 1972, Mamm. Species, 15:1-4.

ISIS NUMBER: 5301410008082001001.

*Ondatra* Link, 1795. Beytr. Naturg., 1(2):76.

REVIEWED BY: M. Andera (MA); M. S. Boyce (MSB); R. Guenzel (RG); J. Ramirez-Pulido (JRP); G. Urbano-V. (GUV).

COMMENT: Revised by Hollister, 1911, N. Am. Fauna, 32. Chaline and Mein, 1979, and Kretzoi, 1969, Vert. Hungar. (Budapest), 11:155-193, placed this genus and

*Neofiber* in the tribe Ondatrini, as does CAR; however, WVK places them in

separate tribes or subfamilies based on differences in the fossil history and the pattern of enamel on the molars; see Koenigswald, 1980, Abh. Senckenb. Naturforsch. Ges., 539. Martin, L. D., 1975, in Smith and Friedland, eds., Studies on the Cenozoic Paleontology and Stratigraphy, p. 109, and Martin, L. D., 1979, Trans. Nebr. Acad. Sci., 7:91-100, also placed *Neofiber* far from *Ondatra*, and considered *Ondatra* an endemic North American arvicolid not closely related to any European form.

ISIS NUMBER: 5301410008083000000.

*Ondatra zibethicus* (Linnaeus, 1766). Syst. Nat., 12th ed., 1:79.

TYPE LOCALITY: E. Canada, no exact locality, probably E. New Brunswick.

DISTRIBUTION: North America, north to the treeline, south to the Gulf of Mexico, Rio Grande and lower Colorado River valleys. Introduced into Czechoslovakia in 1905; now widely distributed in the Palearctic.

COMMENT: Includes *obscurus*; see Cameron, 1959, Bull. Nat. Mus. Can., 154:85, and Pietsch, 1970, Z. Säugetierk., 35:257-288. Reviewed by Willner *et al.*, 1980, Mamm. Species, 141:1-8. See Hoffmann, 1958, Die Bisamratte, 260 pp., and Corbet, 1978:106 for discussion of distribution.

ISIS NUMBER: 5301410008083001001.

*Phenacomys Merriam*, 1889. N. Am. Fauna, 2:32.

COMMENT: Revised by Howell, 1926, N. Am. Fauna, 48:66 pp. Formerly included *Arborimus*; see Johnson, 1973, J. Mammal., 54:239-244, and Johnson and Maser, in press, Northwest. Sci. Placed by Gromov and Polyakov, 1977:336, as genus *incertae sedis*.

ISIS NUMBER: 5301410008084000000.

*Phenacomys intermedius* Merriam, 1889. N. Am. Fauna, 2:32.

TYPE LOCALITY: Canada, British Columbia, 20 mi. (32 km) N.N.W. Kamloops.

DISTRIBUTION: S. Yukon to the south coast of Hudson Bay to Labrador, south to the St. Lawrence River and Great Lakes, New Mexico (in the Rocky Mtns.), and E.C. California (in the Sierra Nevada, U.S.A.).

COMMENT: Includes *ungavae*; see Crowe, 1943, Bull. Am. Mus. Nat. Hist., 80:391-410; but see also Hall, 1981:785, who suggested that *intermedius* "may be a composite of two or three allopatric species."

ISIS NUMBER: 5301410008084002001.

*Pitymys* McMurtrie, 1831. Cuvier's Anim. Kingdom, Amer. ed., 1:434.

REVIEWED BY: M. Andera (MA); S. R. Leffler (SRL); W. D. Severinghaus (WDS).

COMMENT: Chaline and Mein, 1979, Corbet, 1978:106, and most European authors treat *Pitymys* as a genus; but see Gromov and Polyakov, 1977:259. Includes as subgenera or as synonyms: *Blanfordimys*, *Herpetomys*, *Meridiopitymys*, *Neodon*, *Parapitymys*, *Pedomys*, and *Phaiomys*; see Corbet, 1978:106. Palearctic species revised by Kratochvil, 1970, Prirodoved. Pr. Ustavia. Cesk. Acad. Ved. Brno, 4(12):1-63, and Kratochvil and Kral, 1974, Zool. Listy, 23:289-302. WDS, on the basis of examination of North American taxa, treated *Pitymys* as a subgenus of *Microtus*; see Severinghaus, 1981, J. Tenn. Acad. Sci., 56:20-22; SRL and Gromov and Baranova, 1981:201, agree.

ISIS NUMBER: 5301410008071000000 as *Blanfordimys*.

*Pitymys afghanus* (Thomas, 1912). Ann. Mag. Nat. Hist., ser. 8, 9:349.

TYPE LOCALITY: Afghanistan, Badkhez, Gulran.

DISTRIBUTION: Mtns. of Afghanistan, S. Turkmenia, and N.E. Iran. Isolated populations in the W. Pamirs and Great Balkhan Mtns. (U.S.S.R.).

COMMENT: Subgenus *Neodon*; see Chaline, 1974; or subgenus *Blanfordimys*; see Gromov and Polyakov, 1977:284. Martin, R. A., 1974, in Webb, ed., Pleistocene Mammals of Florida, p. 61, suggested that this species "may eventually" be included in *Neodon*. Includes *bucharicus*; see Neithammer, 1970, Bonn. Zool. Beitr., 21:109-115; but also see Gromov and Baranova, 1981:208, who suggested *bucharicus* may be a distinct species. Formerly placed in the monotypic genus *Blanfordimys*; see Corbet, 1978:106; Gromov and Baranova, 1981:207, retained *Blanfordimys* as a subgenus.

ISIS NUMBER: 5301410008071001001 as *Blanfordimys afghanus*.

- Pitymys bavaricus* König, 1962. Senckenberg. Biol., 43:2.  
 TYPE LOCALITY: West Germany, Bavaria, Garmisch-Partenkirchen.  
 DISTRIBUTION: Bavaria (Germany).  
 COMMENT: Subgenus probably *Pitymys*; see König, *op cit.*, pp. 4-10, and Kratochvil, 1970, Prirodoved. Pr. Ustavia. Cesk. Acad. Ved. Brno, 4:1-63.
- Pitymys ciscaucasicus* (Ognev, 1924). Gryzuny Severnovo Kavkaza, p. 34.  
 TYPE LOCALITY: U.S.S.R., Gruzinsk. S.S.R. (Georgia), near Vladikavkaz (=Ordzhonikidze).  
 DISTRIBUTION: N. Caucasus Mtns. (U.S.S.R.).  
 COMMENT: Subgenus probably *Meridiopitymys*; see Chaline, 1974; regarded by Ellerman and Morrison-Scott, 1951, as a synonym of *subterraneus*, and by Corbet, 1978:109, of *majori*; Kratochvil and Kral, 1974, Zool. Listy, 23:289-302, provided evidence of specific distinctness.
- Pitymys daghestanicus* (Shidlovskii, 1919). Raboty Zemskoi Opytnoi Stantsi, 2:12.  
 TYPE LOCALITY: U.S.S.R., R.S.F.S.R., Dagestansk. A.S.S.R., Gunibsk. Okr., Karda.  
 DISTRIBUTION: Daghestan, E. Caucasus Mts. (U.S.S.R.).  
 COMMENT: Subgenus probably *Meridiopitymys*; see Chaline, 1974; regarded by Ellerman and Morrison-Scott, 1951, as a synonym of *subterraneus*, and by Corbet, 1978:109, of *majori*; Kratochvil and Kral, 1974, Zool. Listy, 23:289-302, provided evidence of specific distinctness.
- Pitymys duodecimcostatus* (de Selys-Longchamps, 1839). Rev. Zool. Paris, p. 8.  
 TYPE LOCALITY: France, Gard, Montpellier.  
 DISTRIBUTION: S.E. France; E. and S. Spain.  
 COMMENT: Subgenus *Meridiopitymys*; see Chaline, 1974. Formerly included the Balkan taxa *atticus* and *thomasi*, as in Ellerman and Morrison-Scott, 1951; but see Petrov and Zivkovic, 1972, Saugetierk. Mitt., 20:249-258, and Petrov and Zivkovic, 1979, Biosystematika, 5(1):113-125; also see comments under *thomasi*.  
 ISIS NUMBER: 5301410008080011001 as *Microtus duodecimcostatus*.
- Pitymys felteni* Malec and Storch, 1963. Senckenberg. Biol., 44 (3):171.  
 REVIEWED BY: G. Storch (GS).  
 TYPE LOCALITY: Yugoslavia, Rep. Makedonija (Macedonia), Pelister Mtns., near Trnovo-Magarevo.  
 DISTRIBUTION: S. Yugoslavia.  
 COMMENT: Subgenus *Parapitymys*; see Chaline, 1978, Cahiers de l'Ecole Pratique des Hautes Etudes, Montpellier, 1/4:145-167. Formerly included in *savii* by Corbet, 1978:109, but see the revision by Petrov *et al.*, 1976, Senckenberg. Biol., 57(1/3):1-10; see also comment under *savii*.
- Pitymys gerbei* (Gerbe, 1879). Le Naturaliste, 1:51.  
 TYPE LOCALITY: France, Loire-Inferieure, Dreneuf.  
 DISTRIBUTION: S.W. France; Pyrenees Mtns. of France and Spain.  
 COMMENT: Subgenus *Parapitymys*; see Chaline, 1978, Cahiers de l'Ecole Pratique des Hautes Etudes, Montpellier, 1/4:145-167. Formerly included in *savii* by Corbet, 1978:109 (as *pyrenaicus*); but see Spitz, 1978, Mammalia, 42:267-304, who employed this name, rather than *pyrenaicus* Longchamp, 1847, which he suggested was a *nomen dubium*; see comments under *savii*.
- Pitymys guatemalensis* Merriam, 1898. Proc. Biol. Soc. Wash., 12:108.  
 REVIEWED BY: J. Ramirez-Pulido (JRP).  
 TYPE LOCALITY: Guatemala, Huehuetenango, Todos Santos, 10,000 ft. (3048 m).  
 DISTRIBUTION: Sierra Madre from C. Chiapas (Mexico), south through S.W. Guatemala.  
 COMMENT: Subgenus *Herpetomys*, usually in genus *Microtus*; see Hall, 1981:803; placed by Martin, R. A., 1974, in Webb, ed., Pleistocene Mammals of Florida, p. 60., in genus *Pitymys*, and CAR in genus *Pitymys*, subgenus *Herpetomys*. See Anderson, 1960, for a discussion of the subgenus *Herpetomys*.  
 ISIS NUMBER: 5301410008080014001 as *Microtus guatemalensis*.



- Pitymys juldaschi* (Severtzov, 1879). Sap. Turk. Otd. Obsh. Lubit. Estestv., 1:63.  
 TYPE LOCALITY: U.S.S.R., Kirgizsk. S.S.R., Dzhahal-Abadsk. Obl., Kara-Kul' (Lake) basin, near Aksu.  
 DISTRIBUTION: Tien Shan and Pamir Mtns. (U.S.S.R.), and adjacent China, Pakistan, and Afghanistan.  
 COMMENT: Subgenus *Neodon*, (CAR); see Ellerman and Morrison-Scott, 1951; but placed in subgenus *Phaiomys* by Chaline, 1974. Includes *carruthersi*; see Corbet, 1978:107. According to OLR, the type locality is in Kirgizia rather than Kara-Kul' in the Pamirs, Tadzhikistan.  
 ISIS NUMBER: 5301410008080018001 as *Microtus juldaski* (sic).  
 5301410008080007001 as *Microtus carruthesi* (sic).
- Pitymys leucurus* (Blyth, 1863). J. Asiat. Soc. Bengal, 32:89.  
 TYPE LOCALITY: India, Ladak, near Lake Chomoriri (=Tsomoriri).  
 DISTRIBUTION: Tsinghai, Sinkiang, and Tibet (China) (SW), and the Himalayas west to Kashmir.  
 COMMENT: Subgenus *Phaiomys*; see Chaline, 1974; or subgenus *Neodon*; see Gromov and Polyakov, 1977:252. Corbet, 1978:107, included *strauchi*, which Van der Meulen, 1978, Ann. Carnegie Mus., 47:101-145, listed as a distinct species. If *Pitymys* were considered a subgenus of *Microtus*, *leucurus* would be preoccupied by *leucurus* Gerbe, 1852, now included in *M. nivalis*; *M. leucurus* Blyth would then be called *M. blythi* (Blanford, 1875) (WDS). Martin, R. A., 1974, in Webb, ed., Pleistocene Mammals of Florida, p. 60, considered *Phaiomys* a distinct genus. Includes *fuscus*, considered a separate species of *Microtus* (*Lasiopodomys*) by Zheng and Wang, 1980, Acta Zootax. Sin., 5(1):106-111; but also see Corbet, 1978:107.  
 ISIS NUMBER: 5301410008080020001 as *Microtus leucurus*.
- Pitymys liechtensteini* Wettstein, 1927. Anz. Akad. Wiss. Wien, 64:2.  
 REVIEWED BY: G. Storch (GS).  
 TYPE LOCALITY: Yugoslavia, Rep. Hrvatska (Croatia), Velebit Mtns., Mt. Mali Rajinac, near Krasno.  
 DISTRIBUTION: Alps of N.E. Italy and S. Austria to C. Yugoslavia.  
 COMMENT: Subgenus *Pitymys*; see Chaline, 1974; regarded by Ellerman and Morrison-Scott, 1951, as a synonym of *subterraneus*; Petrov and Zivkovic, 1971, Arh. Biol. Nauka, 23:31-32, provided evidence of specific distinctness. Possibly a subspecies of *multiplex*; see Storch and Winking, 1977, Z. Säugetierk., 42:78-88.
- Pitymys lusitanicus* (Gerbe, 1879). Rev. Mag. Zool. Paris, ser. 3, 7:44.  
 TYPE LOCALITY: Portugal, no exact locality.  
 DISTRIBUTION: N. Iberian Peninsula; S.W. France.  
 COMMENT: Subgenus *Meridiopitymys*; see Chaline, 1974. Includes *mariae*; see Spitz, 1978, Mammalia, 42:267-304, and Neithammer, 1970, Bonn. Zool. Beitr., 21:109-115; regarded by Ellerman and Morrison-Scott, 1951, as a synonym of *savii*; Almaca, 1973, Revista Fac. Cienc. Univ. Lisboa, 17:383-426, provided evidence of specific distinctness.
- Pitymys majori* (Thomas, 1906). Ann. Mag. Nat. Hist., ser. 7, 17:419.  
 REVIEWED BY: G. Storch (GS).  
 TYPE LOCALITY: Turkey, Trabzon Prov., Sumela (=Meryemana), 30 mi. (48 km) S. of Trebizond (=Trabzon).  
 DISTRIBUTION: N., E., and W. Turkey; W. Caucasus; S. Yugoslavia (GS).  
 COMMENT: Subgenus *Meridiopitymys*; see Chaline, 1974; Corbet, 1978:109, included *ciscaucasicus* and *daghestanicus*, for which Kratochvil and Kral, 1974, Zool. Listy, 23:289-302, provided evidence of specific distinctness; see also Felten *et al.*, 1971, Senckenberg. Biol., 52(6):393-424. Includes *nasarovi*, which may be a distinct species; see Tembotov *et al.*, 1976, Nalchik, pp. 3-35. Six different karyotypic forms have been found in the Caucasus ranges (see Hatuhov and Tembotov, 1978:390, in II Congr. Theriol. Intern. (Brno), Obrtel, Folk, and Pellantova, eds., Inst. Vert. Zool., Czech. Acad. Sci., Brno, and Khatukhov (= Hatuhov), 1980:382,

in [Rodents. Materials of the All-Union Conf.], Panteleev, ed., Nauka, Moscow, 471 pp.). Ketenchiev, 1980:21, in [Rodents. Materials of the All-Union Conf.], Panteleev, ed., Nauka, Moscow, 471 pp., suggested that all may constitute a single, chromosomally polymorphic, species. See Petrov and Živkovic, 1979, *Biosystematika*, 5(1):113-125, for alternative discussion of distribution.

*Pitymys multiplex* (Fatio, 1905). *Arch. Sci. Phys. Nat. Geneve*, ser. 4, 19:193.

REVIEWED BY: G. Storch (GS).

TYPE LOCALITY: Switzerland, Ticino Canton, near Lugano.

DISTRIBUTION: S. Alps in Switzerland and France, and N. Apennines and S. Alps east to the Adige River in Italy.

COMMENT: Subgenus *Pitymys*; see Chaline, 1978, *Cahiers de l'École Pratique des Hautes Etudes, Montpellier*, 1/4:145-167. Reviewed by Meylan, 1970, *Rev. Suisse Zool.*, 77:562-575, and Storch and Winking, 1977, *Z. Säugetierk.*, 42:78-88. Includes *fatioi* and *druentius*; see Graf and Meylan, 1980, *Z. Säugetierk.*, 45:133-148, and Corbet, 1978:108.

*Pitymys ochrogaster* (Wagner, 1842). In Schreber, *Die Säugethiere ...*, Suppl. 3:592.

REVIEWED BY: R. E. Barry, Jr. (REB).

TYPE LOCALITY: U.S.A., probably Indiana, New Harmony, "America."

DISTRIBUTION: W. West Virginia, northwest into Alberta, west to S.C. Colorado and N. New Mexico; isolated population in Texas and Louisiana.

COMMENT: Subgenus *Pedomys*; see Anderson, 1960. See Hooper and Hart, 1962, *Misc. Publ. Zool. Univ. Mich. Mus.*, No. 120, 68 pp., Martin, R. A., 1974, in Webb, ed., *Pleistocene Mammals of Florida*, p. 60, and Chaline and Mein, 1979, for basis of allocation to *Pitymys* (*Pedomys*). Van Der Meulen, 1978, *Ann. Carnegie Mus.*, 47:101-145, regarded *Pedomys* as a subgenus of *Microtus*; Hall, 1981:812, placed this species in *Microtus* subgenus *Pitymys*. WDS recommended that, if *Pitymys* is considered a distinct genus, *Pedomys* should also be given generic status. Includes *ludovicianus*; see Raun and Laughlin, 1972, *Southwest. Nat.*, 16:439. Includes *minor*, which Severinghaus, 1977, *Proc. Biol. Soc. Wash.*, 90:49-54, listed as a distinct species without comment; but see Hall, 1981:8-13.

ISIS NUMBER: 5301410008080031001 as *Microtus ochrogaster*.

5301410008080022001 as *Microtus ludovicianus*.

*Pitymys pinetorum* (Le Conte, 1830). *Ann. Lyc. Nat. Hist.*, 3:133.

TYPE LOCALITY: U.S.A., Georgia, Liberty Co., Riceboro, probably on the LeConte plantation.

DISTRIBUTION: C. Texas to N.C. Wisconsin and N. Florida, to Maine (U.S.A.).

COMMENT: Subgenus *Pitymys*; see Chaline and Mein, 1979, who included *nemoralis* and *parvulus*, in this species, as is done here; Van der Meulen, 1978, *Ann. Carnegie Mus.*, 47:101-145, regarded them as distinct species in subgenus *Pitymys*. Hooper and Hart, 1962, *Misc. Publ. Mus. Zool. Univ. Mich.*, No. 120, 68 pp., regarded *pinetorum* as close to *ochrogaster* and *mexicanus* in subgenus *Pitymys* of genus *Microtus* as did Hall, 1981:816. Reviewed by Smolen, 1981, *Mamm. Species*, 147:1-7, under the name *Microtus*.

ISIS NUMBER: 5301410008080036001 as *Microtus pinetorium* (sic).

*Pitymys quasiater* (Coues, 1874). *Proc. Acad. Nat. Sci. Phila.*, 26:191.

REVIEWED BY: J. Ramirez-Pulido (JRP); G. Urbano-V. (GUV).

TYPE LOCALITY: Mexico, Veracruz, Jalapa.

DISTRIBUTION: S.E. San Luis Potosi to N.C. Oaxaca (Mexico).

COMMENT: Placed by most recent authors in *Pitymys*, see Hall, 1981:817, who placed this species in *Microtus* subgenus *Pitymys*.

ISIS NUMBER: 5301410008080037001 as *Microtus quasiater*.

*Pitymys savii* (de Selys-Longchamps, 1838). *Rev. Zool. Paris*, p. 248.

TYPE LOCALITY: Italy, near Pisa.

DISTRIBUTION: Italy; Sicily; S. France.

COMMENT: Subgenus *Parapitymys*; see Chaline, 1978, *Cahiers de l'École Pratique des Hautes Etudes, Montpellier*, 1/4:145-167. Corbet, 1978:109, and WDS included

*pyrenaicus* (= *gerbei*) and *felteni*, for which St. Girons, 1973, Les Mammifères du France et du Benelux, p. 342-344, Winking, 1974, Symp. Ther. II, Prague, p. 267-273, and Petrov *et al.*, 1976, Senckenberg. Biol., 57(1/3):1-10, provided evidence of specific distinctness.

ISIS NUMBER: 5301410008080039001 as *Microtus savii*.

*Pitymys schelkovnikovi* (Satunin, 1907). Izv. Kavkas. Mus., 3:243.

TYPE LOCALITY: U.S.S.R., Azerbaidzhansk. S.S.R., Talysk Mtns., Lenkoransk. Okr., near Dzhi.

DISTRIBUTION: Talysk and Elburz Mtns.; S. Azerbaidzhan (U.S.S.R.); S. and probably N.W. Iran.

COMMENT: Subgenus uncertain; regarded by Ellerman and Morrison-Scott, 1951, as a synonym of *subterraneus*; evidence for specific distinctness provided by Kratochvil, 1970, Prirodoved. Pr. Ustavia. Cesk. Acad. Ved. Brno, 4:1-63.

*Pitymys sikimensis* (Hodgson, 1849). Ann. Mag. Nat. Hist., ser. 2, 3:203.

TYPE LOCALITY: India, Sikkim, no exact locality.

DISTRIBUTION: Himalayas from Nepal to N. Burma, Szechwan, and S. Kansu (China).

COMMENT: Subgenus *Neodon*; see Chaline, 1974. Includes *irene*; see Corbet, 1978:107, but Gromov and Polyakov, 1977:256, considered *irene* a distinct species. Martin, R. A., 1974, in Webb, ed., Pleistocene Mammals of Florida, p. 60, considered *Neodon* a distinct genus; also see Martin, R. A., 1979, Evol. Monogr., 2.

ISIS NUMBER: 5301410008080040001 as *Microtus sikimensis*.

5301410008080017001 as *Microtus irene*.

*Pitymys subterraneus* (de Selys-Longchamps, 1836). Essai Monogr. sur les Campagnols des Env. de Liege., p. 10.

TYPE LOCALITY: Belgium, Liege, Waremme.

DISTRIBUTION: N. and C. France through C. Europe to Ukraine and the Don River, south to Balkans, but true southern limits uncertain. Isolated populations in N.E. Russia.

COMMENT: Subgenus *Pitymys*; see Chaline, 1974. Revised by Niethammer, 1972, Bonn. Zool. Beitr., 23:290-309.

ISIS NUMBER: 5301410008080042001 as *Microtus subterraneus*.

*Pitymys tatricus* Kratochvil, 1952. Acta Acad. Sci. Nat. Moravo-Siles., 24:155-194.

TYPE LOCALITY: Czechoslovakia, Poprad Dist., Velka Studena Dolina valley, High Tatra Mtns.

DISTRIBUTION: Alpine zone of Tatra Mtns. between Czechoslovakia and Poland; Pilsko Mtn., Beslksid Ziwiecki Mtns. (W. Carpathians).

COMMENT: Subgenus *Pitymys*; see Chaline, 1974; regarded by Ellerman and Morrison-Scott, 1951, as a synonym of *subterraneus*. Revised by Kratochvil, 1970, Prirodoved. Pr. Ustavia. Cesk. Acad. Ved. Brno, 4:1-63.

*Pitymys thomasi* (Barrett-Hamilton, 1903). Ann. Mag. Nat. Hist., ser. 7, 11:306.

TYPE LOCALITY: Yugoslavia, Montenegro, Vranici.

DISTRIBUTION: S. coastal Yugoslavia; Albania and adjacent Greece.

COMMENT: Subgenus *Meridiopitymys*; see Chaline, 1974. Includes *atticus*; see Petrov and Zivkovic, 1979, Biosystematika, 5(1):113-125; and Corbet, 1978:110. Regarded by Ellerman and Morrison-Scott, 1951, as a synonym of *duodecimcostatus*; evidence of specific distinctness provided by Petrov and Zivkovic, 1972, Säugetierk. Mitt., 20:249-258.

*Proedromys* Thomas, 1911. Abstr. Proc. Zool. Soc. Lond., 90:4.

REVIEWED BY: S. R. Leffler (SRL).

COMMENT: Monotypic; retained as a genus following Wang *et al.*, 1966, Acta Zootax. Sin., 3:85-91, and Gromov and Polyakov, 1977:243; but also see Corbet, 1978:110, who included *Proedromys* in *Microtus* following Ellerman and Morrison-Scott, 1951, who considered it a subgenus. Martin, R. A., 1974, in Webb, ed., Pleistocene Mammals of Florida, p. 61, suggested that this genus "may eventually" be included in *Neodon*.

*Proedromys bedfordi* Thomas, 1911. Abstr. Proc. Zool. Soc. Lond., 90:4.

TYPE LOCALITY: China, Kansu, 60 mi. (96 km) S.E. Minchow.

DISTRIBUTION: Kansu and Szechwan (China) (SW).

COMMENT: Placed by Chaline, 1974, and Corbet, 1978:116, in genus *Microtus*, but retained in monotypic genus by Wang *et al.*, 1966, Acta Zootax. Sin., 3:85-91, and by Gromov and Polyakov, 1977:243.

ISIS NUMBER: 5301410008080003001 as *Microtus bedfordi*.

*Prometheomys Satunin*, 1901. Zool. Anz., 24:572.

COMMENT: Placed with *Ellobius* in subfamily Prometheomyinae by CAR; placed in monotypic tribe Prometheomyini by Gromov and Polyakov, 1977:102.

ISIS NUMBER: 5301410008085000000.

*Prometheomys schaposchnikowi* Satunin, 1901. Zool. Anz., 25:574.

TYPE LOCALITY: U.S.S.R., Gruzinsk. S.S.R. (Georgia), Gudaur, S. of Krestovyi Pass (Caucasus Mtns.).

DISTRIBUTION: C. and W. Caucasus (U.S.S.R. and extreme N.E. Turkey).

ISIS NUMBER: 5301410008085001001.

*Synaptomys* Baird, 1858. Mammals, in Repts. Expl. and Surv...., 8(1):558.

REVIEWED BY: B. R. Blood (BRB); A. V. Linzey (AVL).

COMMENT: Placed in tribe Lemmini by Gromov and Polyakov, 1977:200.

ISIS NUMBER: 5301410008086000000.

*Synaptomys borealis* (Richardson, 1828). Zool. J., 3:517.

TYPE LOCALITY: Canada, Mackenzie, Great Bear Lake, Ft. Franklin.

DISTRIBUTION: S.E. and C. Alaska (U.S.A.), to S. shore of Hudson Bay to Labrador (Canada), south to N. Minnesota, Montana, and Washington; isolated populations from S.E. Quebec to N. New Hampshire (U.S.A.).

COMMENT: Subgenus *Mictomys*; revised by Howell, 1927, N. Am. Fauna, 50:1-38. Koenigswald and Martin, in press, Bull. Carnegie Mus. Nat. Hist., considered *Mictomys* a distinct genus; two extinct subgenera are also referable to *Mictomys*.

ISIS NUMBER: 5301410008086001001.

*Synaptomys cooperi* Baird, 1858. Mammals, in Repts. Expl. and Surv...., 8(1):558.

TYPE LOCALITY: U.S.A., New Hampshire, Carroll Co., at Jackson.

DISTRIBUTION: Midwestern and E. U.S.A., through S.E. Canada and south to North Carolina and Arkansas; isolated populations in S.W. Kansas and Nebraska.

COMMENT: Subgenus *Synaptomys*. Revised by Wetzel, 1955, J. Mammal., 36:120. The subspecies *paludis* may be extinct; *helaletes* recently recollected (AVL).

ISIS NUMBER: 5301410008086002001.

## Family Muridae

REVIEWED BY: J. H. Honacki (JH).

COMMENT: Assignment of family separate from Cricetidae and Arvicolidae follows Chaline and Mein, 1979, and Reig, 1980, J. Zool. Lond., 192:257-281. For a review of the taxonomy of this family see Swanepoel *et al.*, 1980, Ann. Transvaal Mus., 32(7):155-196, and Arata, 1967, in Anderson and Jones.

ISIS NUMBER: 5301410011000000000.

*Acomys* I. Geoffroy, 1838. Ann. Sci. Nat. Paris Zool., ser. 2, 10:126.

REVIEWED BY: M. Andera (MA)(Europe); D. A. Schlitter (DS); E. Van der Straeten (EVS)(Africa).

COMMENT: Reviewed by Setzer, 1975, Part 6.5:1-2.

ISIS NUMBER: 5301410011001000000.

*Acomys cahirinus* (Desmarest, 1891). Nouv. Dict. Hist. Nat., 29:70.

TYPE LOCALITY: Egypt, Cairo.

DISTRIBUTION: Cyprus; Western Sahara to Egypt; Nigeria; Ethiopia; Somalia; Sudan; Kenya; Uganda; Jordan; Lebanon; Syria; Yemen; Oman; S. Iraq; Iran; Pakistan.

COMMENT: Includes *cinereus*, *hawashensis*, *johannis*, *kempi*, and *perciali*; see Setzer,