Historical Review and Notes on Small Mammals  
(Mammalia: Erinaceomorpha, Soricomorpha, Rodentia)  
in Korea  
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ABSTRACT  
A taxonomic study of small mammals (Erinaceomorpha, Soricomorpha and Rodentia) was conducted in order to find out the scientific names which have been used in Korea. The synonymy of each species and taxonomical research was reviewed and confirmed in this study. The species names are rearranged based on recent studies. Among the various confused names, available names were adopted such as follows: C. shantungensis shantungensis known as Crocidura suaveolens; C. shantungensis quelpartis known as C. dsinezumi; Rattus tanezumi known as R. rattus, called black rat, roof rat and ship rat, respectively. Apodemus sylvaticus (Muridae, wood mouse) is excluded in the checklist based on indistinct previous records and ambiguous habitation on the Korean Peninsula, and neighbors. In addition, we provide a new Korean vernacular name for Myocastor coypus, called the “Nutria” in Korea. We reflect that several species are repositioned to other genera. A checklist of Korean small mammals and synonym list for each species is provided to avoid confusion of scientific names in Korea. In this study, the list of small mammals in Korea is arranged to 33 species, 20 genera, 8 families, and 3 orders.  

Keywords: checklist, synonym, rodent, shrew, vole, hamster, valid name  

INTRODUCTION  
Small mammals such as rodents, voles, hamsters, and shrews, are related to human life in terms of pets and disease. Hence, there has been a lot of study of this group in many countries. Rodentia is the largest mammalian order, accounting for 42% of mammals in the world, and has over worldwide distribution comprising about 2,277 species (Carleton and Musser, 2005).  
Many local names and subspecies names have been used in the past century in Korea because many species have a wide distribution (Woon, 1967; Won, 1968; Yoon et al., 2004). Korean species of small mammals have been insufficiently described without such as keys and diagnostic description between siblings or near species in the past, but recently they are being rearranged by many studies analyzing molecular genes. Several species of Rodentia and Soricomorpha from Korea and neighboring countries were reexamined from the results of analyses using rRNA and mtDNA sequences by Koh et al. (2000, 2008a, 2008b, 2009b, 2010, 2012a, 2012b, 2013). Phylogenetic relationships of Korean Rodentia was performed by Jung et al. (2010), based on mtDNA and nuclear DNA. Additionally, taxonomic positions of several Soricidae in Korea were studied by several researchers: Ohdachi et al. (2003, 2004, 2005, 2012), Tatsuo et al. (2005), and Kartavtseva and Park (2010).  
The order Insectivora has been divided into several orders by phylogenetic systematics studies (Stanhope et al., 1998; Asher, 1999, 2001). The species of Insectivora in Korea belong to two orders: Erinaceomorpha, and Soricomorpha. Practically, the Insectivora are asserted to be a polyphyletic group, and the word has not been used in scholarly papers ever since  

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Hutterer’s paper (1993) (Hutterer, 2005). However, most of the researchers investigating the natural environment in Korea have been using the list provided from the Ministry of Environment in 2006 (Kim YK, personal communication). Many taxonomic changes have occurred with the development of molecular systematics in the 2000s. As a result, scientific names are confused with many synonyms these days. Websites for mammal taxonomy in many countries are going to reflect these recent studies.

These days of vigorous international trade in biological resources are producing the megadata for the management of global biodiversity and providing data directly to the general public. These data are used to do the fundamental listing for international conventions such as IUCN Red-List, and fair and equitable sharing of benefits arising from the use of genetic resources in each country. In particular, a clear concept of the species, that is, the current valid scientific name, essential element for interests between countries. The comprehensive rearrangement of the kinds of small mammals inhabiting the Korean Peninsula is needed in order to reflect the newly known results of studies, since taxonomic studies are reported fragmentarily at local levels, such as comparisons about genetic independence between sibling species or lower taxa levels.

Therefore, in this study, the checklist of the Korean mammals was rearranged based on recently available publications and synonymic lists about each species in Korea.

MATERIALS AND METHODS

A literature search was undertaken to determining out the distributional history of Korean small mammals. First, the general distribution and basis of the list mainly depend on Woon (1967) and Yoon et al. (2004). Additionally, bibliographic data search engines, such as ‘Google Scholar’, ‘National Discovery for Science Leaders (NDSL)’, ‘Biodiversity Heritage Library (BHL)’, ‘Archive’, ‘Jstor’, ‘Zoological Record’, ‘Kyoto Univ. Digital Library’, were queried using keywords about Korean small mammals. To identify Korean localities, we used specimen information which was preserved in the National Institute of Biological Resources (NIBR) in South Korea. In some species which have not specimen and information of locality, we cited literatures with description of those species in this study.

Based on the available literature, the taxonomic account for each species is listed, made up of synonyms, common name, Korean locality, distribution, and remarks.

HISTORICAL REVIEW

The records of small mammals on the Korean Peninsula were first reported for Crocidura lasiura Dobson by Giglioli and Salvadori (1887). Thomas (1907b) reported 14 species, including two new species: Mogera wogura coreana and Mogera latouchei. At the same time, he published research papers about mammals of Japan, China, and Manchuria, including the Korean Peninsula. Japanese mammalogist Kuroda (1934) reported 24 species including several new species, such as Mus bactrianus yamashinai, Crocidura dsinezumi quelpartis, C. yamashinai, and C. neglecta. American mammalogists Johnson and Jones (1955a) published two papers about subspecies belonging to the Rodentia from Korea. Among these, three new subspecies of the genera Apodemus and Mycromys were later synonyms, but recently the subspecies name of the Siberian chipmunk has proven to be a distinct species, by Koh et al. (2009b). After that, they reported two research papers, in 1960 and 1965, entitled ‘Review of the Insectivores of Korea’, with identification key(s) and morphological characters for 15 species belonging to Insectivora, and ‘Synopsis of the Lagomorphs and Rodents of Korea’, about morphological characters of 3 hares and 26 rats.

The Korean mammalogist, Woon (1967) reported 100 species, 53 genera, 22 families, and 7 orders including 13 species, 4 genera, and 3 families of Insectivora, and 16 species, 11 genera, and 2 families of Rodentia. The North Korean mammalogist, Won (1968) classified as 77 species, 46 genera, 20 families, and 6 orders about mammals of Korea including 12 species, 5 genera, and 3 families of Insectivora, and 20 species, 13 genera, and 5 families of Rodentia.

Yoon and Koh (1997) listed total 104 mammal species which belong to 24 families of 8 orders, including 12 species, 3 families of Insectivora and 21 species, 3 families of Rodentia.

Won and Smith (1999) briefly mentioned the history of Korean mammal studies, and the shrews and rodents were listed as 32 species in their study.

Since the year 2000, Han et al. (2000) have published papers about new records of two Sorex species from South Korea, and Yoon et al. (2004) have rearranged as 122 species, 51 genera, 38 families, and 8 orders in Korea including 13 species, 5 genera, and 3 families of Insectivora, and 20 species, 17 genera, and 4 families of Rodentia. Ohdachi et al. (2005) reported a new subspecies belonging to Sorex caecutiens based on specimens collected at Mt. Halla, Jeju, in South Korea. Since then, there are no additional reports.

Based on available publications, the list of small mammals on the Korean Peninsula is 33 species, 20 genera, 8 families, and 3 orders.
TAXONOMIC ACCOUNTS

18 Class Mammalia
26 Order Erinaceomorpha
36 Family Erinaceidae
46 Subfamily Erinaceinae
56 Genus Erinaceus Linnaeus, 1758

66 Erinaceus amurensis Schrenck, 1858
Erinaceus europaeus var. amurensis Schrenck, 1858: 100 (type locality: NE China, Gulssoja); Yoon et al., 2004: 20.
Erinaceus orientalis Allen, 1903: 179 (type locality: E Russia, Vladivostock).
Erinaceus ussuriensis Satunin, 1907: 170 (type locality: Korea).

Common name. Amur Hedgehog.
Korean locality. Entire region.
Distribution. Korea, E China, Russia (Amur River and tributaries).
Remarks. This species was included in the europaeus group in the past, but classified as a separate species by Hutterer (2005).

78 Order Soricomorpha
88 Family Soricidae
98 Subfamily Crocidurinae
108 Genus Crocidura Wagler, 1832

118 Crocidura lasiura Dobson, 1890
Crocidura lasiura Giglioli and Salvadori, 1887: 580 (nomen nudum).
Crocidura lasiura lasiura Dobson, 1890a: 31 (type locality: SE Siberia, Ussuri River); Thomas, 1907b: 462; Woon, 1967: 277.
Crocidura suaveolens shantungensis Miller, 1901: 158 (type locality: China, Chimeh, Shantung); Woon, 1967: 275.
Crocidura coreae Thomas, 1906: 860 (type locality: Korea, Mungyong); Jones and Johnson, 1960: 567; Yoon and Koh, 1997: 299.
Crocidura thomasi Sowerby, 1917: 318 (type locality: Korea, Mungyong); Woon, 1967: 277.
Crocidura ilenkani Kishida and Mori, 1931: 377 (nomen nudum).
Crocidura longicauda Mori, 1927: 28 (type locality: Korea, Seoul).
Crocidura ilenisis coreae Imaizumi, 1949: 80.

Common name. Ussuri white-toothed shrew.
Korean locality. Entire region (exclude Jeju Island and Ulleung Island).
Distribution. Korea, NE China, Russia (Ussuri).

**Crocidura suaveolens coreae** Jones and Johnson, 1960: 567.

**Crocidura suaveolens utsuryoensis** Jones and Johnson, 1960: 569.

**Crocidura suaveolens** Yoon et al., 2004: 27.


**Common name.** Asian lesser white-toothed shrew.

**Korean locality.** Entire region.

**Distribution.** Korea, E China, Japan (Tsuchima), Taiwan, Russia (SE Siberia).

**Remarks.** The species in the Korean Peninsula was variously named until recently. It was proven to be *C. shantungensis shantungensis* by Jiang and Hoffmann (2001).

**1** *Crocidura shantungensis quelpartis* Kuroda, 1934
(Korean name: Jejujakeuntatzui)

Crocidura dsinezumi quelpartis Kuroda, 1934: 236 (type locality: Korea, Jeju Island); Jones and Johnson, 1960: 562; Yoon and Koh, 1997: 299; Kaneko and Maeda, 2002: 3.


Crocidura dsinezumi: Yoon et al., 2004: 25.


**Common name.** Jeju white-toothed shrew.

**Korean locality.** Jeju Island.

**Distribution.** Korea.

**Remarks.** This species was treated as *C. dsinezumi*, or as a subspecies of *C. lasiura* in the past, but was proven to be a subspecies of *C. shantungensis*, by Motokawa et al. (2003). A changed Korean name ‘Jejujakeuntatzui’ is proposed for concordance with other species names included in the same genus.

2*Subfamily Soricinae

3*Tribe Nectogalini

4*Genus Neomys Kaup, 1829

5*Neomys fodiens (Pennant, 1771)

Sorex fodiens Pennant, 1771: 308 (type locality: Germany, Berlin).

Neomys fodiens orientis Thomas, 1914: 564 (type locality: Russian Central Asia, Swamps of River Kammanajaretschka, Semirechtya); Won, 1968: 62.

Neomys fodiens watasei Kuroda, 1941: 114 (type locality: Russia, Toyoohara City, Sakhalin Island); Kaneko and Maeda, 2002: 5.


**Common name.** Eurasian water shrew.

**Korean locality.** Northern region.

**Distribution.** North Korea, China (Tien Shan, Jilin), NW Mongolia, Most of Europe.

**Remarks.** This species is distributed in highlands of North Korea, but not has been confirmed in South Korea (Yoon et al., 2004).

6*Tribe Soricini

7*Genus Sorex Linnaeus, 1758

8*Sorex minutissimus* Zimmermann, 1780

Sorex minutissimus Zimmermann, 1780: 385 (type locality: Russia, Yenisei); Yoon et al., 2004: 33; Hutterer, 2005: 291.


**Common name.** Eurasian least shrew.

**Korean locality.** Mt. Odae, Mt. Seolak, Gangwon-do.

**Distribution.** South Korea, China, Japan (Hokkaido, Honshu), Mongolia, Sweden and Estonia to Russia (E Siberia, Sakhalin), Taiga zone from Norway.

**Remarks.** This species was reported as a subspecies of *S. minutissimus* by Yoshiyuki (1988), based on specimens collected at Mt. Odae, but the subspecies name was not used since that study. Additional research is needed about its taxonomic position and the distribution in Korea.

9*Subgenus Sorex Linnaeus, 1758

10*Sorex (Sorex) caecutiens caecutiens* Laxmann, 1788
stat. comb.


Sorex macropygmaeus Miller, 1901: 158.


Sorex annexus Thomas, 1906: 859 (type locality: Korea, Mungyong).

**Sorex (Sorex) caecutiens**: Hutterer, 2005: 285.

**Common name.** Laxmann’s shrew.

**Korean locality.** Entire forests region.

**Distribution.** Korea, NE China, Japan, E Europe to E Siberia, Ukraine, N Kazakhstan, Altai Mountains, Mongolia.

**Remarks.** The population found on Jeju Island has proven to be a subspecies of *S. caecutiens*. The species *S. caecutiens* was divided and treated as several subspecies in the world. The species name expresses the species rank (*S. caecutiens*) on the continent as the nominate subspecies (*S. caecutiens caecutiens*).

1* Sorex (Sorex) caecutiens hallamontanus Abe and Oh, 2005

*Sorex caecutiens hallamontanus*: Ohdachi et al., 2005: 355 (type locality: S Korea, Jeju, Mt. Halla); Koh et al., 2012b: 215.

**Common name.** Halla shrew.

**Korean locality.** Mt. Halla, Jeju.

**Distribution.** South Korea.

**Remarks.** This species has proven to have subspecies from islands of Korea and Japan by Ohdachi et al. (2005), with an endemic subspecies in Korea.

2* Sorex (Sorex) daphaenodon Thomas, 1907

*Sorex daphaenodon* Thomas, 1907a: 407 (type locality: Darine, Sakhalin Island); Yoon et al., 2004: 31.

*Sorex (Sorex) daphaenodon*: Hutterer, 2005: 287.

**Common name.** Siberian large-toothed shrew.

**Korean locality.** Mt. Baekdu region.

**Distribution.** North Korea, China (Manchuria), Japan, Russia (SE Siberia).

**Remarks.** It was confirmed that the species inhabited the Baekdu Highlands of North Korea in 2001, but further faunal or survey results were not reported about this species (Yoon et al., 2004). This species is treated as five subspecies in the world, but it is not sure which subspecies is inhabited Korea. It is necessary to research about the Korean habitat.

3* Sorex (Sorex) gracillimus Thomas, 1907

*Sorex minutus gracillimus* Thomas, 1907a: 408 (type locality: Russia, Darine, Sakhalin Island); Ellerman and Morrison-Scott, 1951: 48; Jones and Johnson, 1960: 561; Woon, 1967: 269.

*Sorex minutus*: Won, 1968: 58 (auct. non).

*Sorex (Sorex) gracillimus*: Yoon and Koh, 1997: 299; Yoon et al., 2004: 32.

*Sorex (Sorex) gracillimus*: Hutterer, 2005: 288.

**Common name.** Slender shrew.

**Korean locality.** North region.

**Distribution.** North Korea, China (Manchuria), Japan, Russia (SE Siberia).

**Remarks.** Like *S. (S.) daphaenodon*, this species was confirmed from specimens inhabited in the Baekdu Highlands of North Korea in 2001, and then no further faunal or survey results were reported on about this species (Yoon et al., 2004). This species is treated as five subspecies in the world, but it is not sure which subspecies is inhabited Korea. It is necessary to research about the Korean habitat.

4* Sorex (Sorex) isodon Turov, 1924

*Sorex araneus tomentis isodon* Turov, 1924: 111 (type locality: Russia, Siberia, River Sosovka, Bargusinsk taiga, Lake Baikal).

*Sorex isodon princeps montanus* Skalon and Rajevsky, 1940: 199.

*Sorex isodon princeps* Skalon and Rajevsky, 1940: 198.

*Sorex isodon sachalinensis* Okhotina, 1993: 58.


*Sorex isodon*: Han et al., 2000: 141; Yoon et al., 2004: 33.

*Sorex (Sorex) isodon*: Hutterer, 2005: 289.

**Common name.** Taiga shrew.

**Korean locality.** Baekdu-daegan mountain range.

**Distribution.** Korea, NE China, SE Norway, Finland through Siberia to Russia (Kamchatka, Sakhalin Island, Kurile Island).

**Remarks.** This species was confirmed as inhabiting Korea by Han et al. (2000) for the first time.

5* Sorex (Sorex) unguiculatus Dobson, 1890

(Korean name: Gimbaltobduizui)

*Sorex unguiculatus* Dobson, 1890b: 155 (type locality: Russia, Sakhalin Island); Won, 1968: 54; Yoon et al., 2004: 35.

*Sorex daphaenodon yesoensis* Kishida, 1924: 168 (type locality: Japan, Hokkaido, Province of Nemuro); Kuroda, 1928: 222; Ellerman and Morrison-Scott, 1951: 54; Kaneko and Maeda, 2002: 2.

*Sorex (Sorex) unguiculatus*: Hutterer, 2005: 298.

**Common name.** Long-clawed shrew.

**Korean locality.** Northeast region.
**Distribution.** North Korea, Japan (Hokkaido), Russia (Siberia from Vladivostok to the Amur, Sakhalin Island).

**Remarks.** This species has not been confirmed with collections in South Korea, but was collected until the 1960’s in the northern part of the Korean Peninsula. A changed Korean name ‘Ginbaltobduizui’ is proposed, matching other species names including in the same genus.

1*Subgenus Ognevia Heptner and Dolgov, 1967

2* Sorex (Ognevia) mirabilis Ognev, 1937

*Sorex mirabilis* Ognev, 1937: 268 (type locality: Russia, E Siberia, Kiskinka River valley, Ussuri region); Won, 1968: 52; Han et al., 2000: 141; Yoon et al., 2004: 34.

*Sorex mirabilis kutscheruki* Stroganov 1956: 6 (type locality: N Korea, Byeokdong-eub); Jones and Johnson, 1960: 560; Won, 1968: 52.

*Sorex (Ognevia) mirabilis*: Hutterer, 2005: 292.

**Common name.** Ussuri shrew.

**Korean locality.** Central and Northern region.

**Distribution.** Korea, NE China, Russia (Ussuri).

**Remarks.** This species was suggested belonging to the other subgenus by Hutterer (1982), because of a closer relationship with *Sorex (Homalurus) alpines* (type species of *Sorex*), based on shared and derived features (synapomorphy) of genital morphology.

3*Family Talpidae

4*Subfamily Talpinae

5*Tribe Talpini

6*Genus Mogera Pomel, 1848

7* Mogera wogura robusta Nehring, 1891

*Talpa wogura* Temminck, 1842: 19 (type locality: Japan, honshu, Yokohama).

*Mogera robusta* Nehring, 1891: 96 (type locality: Siberia, Vladivostok).

*Mogera wogura coreana* Thomas, 1907b: 463 (type locality: Korea, Gimhwa); Kuroda, 1934: 238; Won, 1968: 45.


*Talpa wogura coreana*: Jones and Johnson, 1960: 572.

*Talpa wogura robusta*: Jones and Johnson, 1960: 573.


*Mogera wogura coreana*: Koh et al., 2012a: 408.

**Common name.** Japanese mole.

**Korean locality.** Entire region (except Jeju Island and Ulleung Island).

**Distribution.** Korea, NE China, Japan.

**Remarks.** The Korean population of the species was known as *M. wogura* in the past, but classified as *M. w. robusta* by Kawada et al. (2001), based on specimen karyosystematic relationships between Korean and Japanese specimens.

8*Order Rodentia

9*Suborder Sciuromorphia

10*Family Sciuridae

11*Subfamily Sciurinae

12*Tribe Sciurini

13*Genus Sciurus Linnaeus, 1758

14*Subgenus Sciurus Linnaeus, 1758

15*Sciurus (Sciurus) vulgaris manchuricus Thomas, 1909

*Sciurus vulgaris manchuricus* Thomas, 1909: 501 (type locality: China, Manchuria, Khingan Mountains); Ognev, 1940: 364; Ellerman and Morrison-Scott, 1951: 474; Koh et al., 2006: 1.


*Sciurus vulgaris coreana* Kishida, 1924: 153.


*Sciurus (Sciurus) vulgaris manchuricus*: Thorington and Hoffmann, 2005: 764; Koh et al., 2006: 1.

**Common name.** Eurasian red squirrel.

**Korean locality.** Entire region.

**Distribution.** Palearctic region.

**Remarks.** Two subspecies, *S. v. coreae* and *S. v. manchuricus*, were suggested for the same species by Koh et al. (2006), as a result of comparisons of mtDNA of both. The species, *S. v. orientalis* was reported which inhabited in the Korea by Thomas (1909), Ognev (1940), and Ellerman and Morrison-Scott (1951) in the past. It was not confirmed the Korean habitat in this study. It is not certain whether the reason is due to the misidentification or the extinction. It is likely to be to the

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Korean name: 1*첨서아속, 2*큰첨서, 3*두더지과, 4*두더지아과, 5*두더지족, 6*두더지속, 7*두더지, 8*쥐목, 9*청설모아목, 10*청설모아과, 11*청설모아과, 12*청설모아과, 13*청설모아과, 14*청설모아과, 15*청설모아과.

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former.

1*Tribe Pteromyini
2*Genus Pteromys

3* Pteromys volans volans (Linnaeus, 1758)
Sciurus volans Linnaeus, 1758: 64 (type locality: Finland).
Sciuropterus aluco Thomas, 1907b: 464 (type locality: Korea, Kaloguai).
Sciuropterus rusaicus aluco: Kuroda, 1934: 231.
Pteromys volans arsenjevi Ognev, 1934: 309 (type locality: Russia, River Kulume, Ussuri region, Siberia); 1940: 282; Ellerman and Morrison-Scott, 1951: 467; Jones and Johnson, 1965: 369.
Pteromys volans: Ellerman and Morrison-Scott, 1951: 466; Won, 1968: 151; Yoon et al., 2004: 112; Lee et al., 2008: 269.

Common name. Siberian flying squirrel.
Korean locality. Entire forest region.
Distribution. Korea, China, Russia, N Palearctic region (Jackson, 2012).
Remarks. The Korean population has proven to be the same species in China and eastern Russia by Koh et al. (2008b) and Lee et al. (2008). The type locality of S. aluco was known as Kaloguai, but the place name is not confirmed in Korea. The name is speculated which is misspelled to ‘Garogol’ in Gangwon-do, Korea.

4*Subfamily Xerinae
5*Tribe Marmotini
6*Genus Tamias Illiger, 1811
7*Subgenus Eutamias Trouessart, 1880

8* Tamias (Eutamias) sibiricus barberi
(Johnson and Jones, 1955)
Eutamias sibiricus barberi Johnson and Jones, 1955b: 175 (type locality: Korea, Central National Forest); Jones and Johnson, 1965: 366.
Sciurus sibiricus Laxmann, 1769: 69 (type locality: Siberia, Barnaul).

Tamias orientalis Bonhote, 1899: 385 (type locality: Russia, E Siberia, Sungatscha River, Upper Ussuri); Thomas, 1907b: 465.
Tamias (Eutamias) sibiricus orientalis: Thornton and Hoffmann, 2005: 817.
Tamias (Eutamias) sibiricus barberi: Pisanu et al., 2013: 1201.

Common name. Siberian chipmunk.
Korean locality. Entire region.
Distribution. South Korea, France (Ile-de).
Remarks. The subspecies name was reused by Koh et al. (2009b), based on the results of their phylogenetic works about T. s. barberi and T. s. orientalis. This species has been known as endemic in Korea, but the species was recently confirmed inhabiting France by Pisanu et al. (2013). They explained that the species settlement in France came about through trade between European countries and Korea in the 1980’s. This species has been used together with three subspecies, T. s. asiaticus, T. s. orientalis, and T. s. barberi in the past. The species inhabited in Korea was confirmed by recent study (Koh et al., 2009b, 2010; Pisanu et al., 2013). The species, T. s. asiaticus reported in the past, is not certain whether it is existed or not.

9*Suborder Myomorpha
10*Superfamily Dipodoidea
11*Family Dipodidae
12*Subfamily Sicistinae
13*Genus Sicista Gray, in Griffith et al., 1827

14* Sicista caudata Thomas, 1907
Sicista caudata Thomas, 1907a: 413 (type locality: Russia, Sakhalin Island); Won, 1968: 167; Yoon et al., 2004: 115; Holden and Musser, 2005: 888.
**Common name.** Long-tailed Birch Mouse.
**Korean locality.** Northern region.
**Distribution.** Korea, NE China, Russia (Primorski Kray, Sikhote-Alin range, Sakhalin Island).
**Remarks.** This species is inhabiting the northern part of the Korean Peninsula.

1. Superfamily Muroidea
2. Family Cricetidae
3. Subfamily Arvicolinae
4. Genus *Lasiopodomys* Lataste, 1887
5. *Lasiopodomys mandarinus* (Milne-Edwards, 1871)
   *Arvicola* mandarinus *Milne-Edwards, 1871*: 93 (type locality: China, N Shansi, Saratsi).

**Common name.** Mandarin vole.
**Korean locality.** South and Central-South region.
**Distribution.** Korea, NE and C China, N Mongolia, Russia (Transbaikal region and E and SE Siberia).
**Remarks.** One specimen is housed in the Gyung Hee University Natural History Museum, South Korea.

6. Genus *Microtus* Schrenck, 1798
7. Subgenus *Alexandromys* Ognev, 1914
8. *Microtus (Alexandromys) fortis* Büchner, 1889
   *Microtus fortis* Büchner, 1889: 99 (type locality: S Mongolia, Valley of north loop of Hwangho River, border of Ordos Desert); Yoon et al., 2004: 135.
   *Microtus calamorum* Thomas, 1902: 167 (type locality: China, Kiangsu, North bank of Lower Yangtsekiang River).
   *Microtus michnoi* Kastschenko, 1910: 288.
   *Microtus pellicerus* Thomas, 1911: 383 (type locality: Russia, E Siberia, Ussuri River).

**Common name.** Reed vole.
**Korean locality.** Western and northern part, Dadohaehaesang National Park.
**Distribution.** Korea, E and C China, Russia (Transbaikal region and Sakhalin Island).
**Remarks.** This species is collected sometimes on the banks of ponds in farmland.

9. Genus *Myodes* Pallas, 1811
10. *Myodes regulus* (Thomas, 1906)
    *Craseomys regulus* Thomas, 1906: 863 (type locality: Korea, Mungyong); 1907b: 466.

**Common name.** Korean Red-backed vole, Royal vole.
**Korean locality.** Entire region (Korean endemic species).
**Distribution.** Korea.
**Remarks.** The genetic affiliation of the species was moved to the genus *Myodes* by Carleton et al. (2003).

11. *Myodes rufocanus* (Sundevall, 1846)
    (Korean name: Daeryukdeulzui)
    *Hypudaeus rufocanus* Sundevall, 1846: 122 (type locality: Sweden, Lappmark).
    *Crethrionomys rufocanus rufocanus*: Ellerman and Morrison-Scott, 1951: 666.

**Common name.** Grey red-backed vole, Grey-sided vole.

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Korean name: 1. 쥐상과, 2.비단털쥐과, 3.물밭쥐아과, 4.물밭쥐속, 5.쇠갈밭쥐, 6.밭쥐속, 7.밭쥐아속, 8.갈밭쥐, 9.들쥐속, 10.비단털들쥐, 11.대륙들쥐 (개칭)
Korean locality. Northern region.
Distribution. N Palearctic region.
Remarks. The genetic affiliation of the species was moved to the genus *Myodes* by Carleton et al. (2003). The Korean name is renamed ‘Daeryukdeulzui’ in this study because the position of the genus being moved to *Myodes*.

18*Myodes rutilus* (Pallas, 1778)
*Mus rutilus* Pallas, 1778: 246 (type locality: W Siberia, East of the Obi).
*Arvicola (Hypudaeus) amurensis* Schrenck, 1858: 129 (type locality: E Siberia, Mouth of River Amur).
*Clethrionomys rutilus*: Won, 1968: 207; Yoon et al., 2004: 134.
*Myodes rutilus*: Carleton et al., 2003: 96; Carleton and Musser, 2005: 1027.

Common name. Northern red-backed vole.
Korean locality. Northern region.
Distribution. N Palearctic region.
Remarks. The genetic affiliation of the species was moved to the genus *Myodes* by Carleton et al. (2003).

28Genus *Ondatra* Link, 1795

38*Ondatra zibethicus* (Linnaeus, 1766)
*Castor zibethicus* Linnaeus, 1766: 79 (type locality: E Canada).
*Ondatra zibethicus*: Won, 1968: 200; Willner et al., 1980: 1; Yoon et al., 2004: 140; Carleton and Musser, 2005: 1033.

Common name. Muskrat.
Korean locality. Northern region.
Distribution. NE Korea, China, Japan, Russia, C and N Europe, N America, Mexico, Argentina.
Remarks. This species has been bred for fur, but recently on escaped population is disturbed in the ecosystem in Korea.

48Subfamily Cricetinae
58Genus *Cricetus* Milne-Edwards, 1867

68*Cricetus barabensis* (Pallas, 1773)

Mus *barabensis* Pallas, 1773: 704 (type locality: Russia, W Siberia, Kasmalsinsk Bor, banks of Ob River).
*Cricetulus griseus fumatus* Thomas, 1909: 503 (type locality: China, Manchuria, Chu-chia-t'ai, Kirin Prov.).

Common name. Striped Dwarf hamster.
Korean locality. North region.
Distribution. Korea, NE China, Russia (S Siberia, Ussuri).
Remarks. This species is inhabiting the northern part of the Korean Peninsula.

78Genus *Tscherskia* Ognev, 1914

88*Tscherskia triton*(de Winton, 1899)
*Cricetus (Cricetus) triton* de Winton and Styan, 1899: 575 (type locality: China, N Shantung); Won, 1968: 194.
*Cricetulus nestor* Thomas, 1907b: 466 (type locality: Korea, Gimhwa); Thomas, 1908a: 9.
*Asioricetus bampensis* Kishida, 1929: 150 (type locality: Korea).
*Asioricetus yamashinai* Kishida, 1929: 156 (type locality: Korea).
*Tscherskia triton*: Yoon et al., 2004: 139; Carleton and Musser, 2005: 1046.

Common name. Greater long-tailed hamster.
Korean locality. Entire region.
Distribution. Korea, NE China, Russia (Ussuri).
Remarks. This species is known inhabiting the entire region of the Korean Peninsula, but the numbers are not many from field surveys.

98Family Muridae
108Subfamily Murinae
118Genus *Apodemus* Kaup, 1829

128*Apodemus agrarius* (Pallas, 1771)
*Mus agrarius* Pallas, 1771: 454 (type locality: Russia, Sim...
Mus agrarius mantchuricus Thomas, 1898: 774 (type locality: China, Manchuria); 1907b: 465; Ellerman and Morrison-Scott, 1951: 575; Jones and Johnson, 1965: 385.


Apodemus agrarius pallescens Johnson and Jones, 1955a: 169 (type locality: Korea, Gunsan); Won, 1958: 447; Jones and Johnson, 1965: 386.


Common name. Striped field mouse.
Korean locality. Entire region (include Ulleung Island).
Distribution. Korea, China, Japan, Taiwan, Russia (Siberia), E Europe.
Remarks. This species is dominant in Korea and was treated as several subspecies in the past.

1* Apodemus peninsulae (Thomas, 1907)

Micromys speciosus peninsulae Thomas, 1906: 862 (type locality: Korea, Mungyong); 1907b: 465.

Micromys speciosus giliacus Thomas, 1907a: 411 (type locality: Russia, Sakhalien, Korsakoff).

Apodemus sylvaticus giliacus: Ellerman and Morrison-Scott, 1951: 571.


Apodemus flavicollis peninsulae: Ellerman and Morrison-Scott, 1951: 566.


Apodemus peninsulae nigritalus Holister, 1913: 1 (type locality: Russia, Siberia, Tapoucha, Altai Mountains).

Apodemus praetor Miller, 1914: 89.

Apodemus peninsulae sowerbyi Jones, 1956: 337 (type locality: China, N Shansi).

Common name. Harvest mouse.
Korean locality. Entire region (except Ulleung Island).
Distribution. Korea (include Jeju Island), NW China, Japan, Taiwan, Vietnam, N Burma, NE India, Russia, Most of Europe.
Remarks. This species is known inhabiting the entire region, except for Ulleung Islands, on the Korean Peninsula.

4* Genus Mus Linnaeus, 1758

Subgenus Mus Linnaeus, 1758

Mus (Mus) musculus Linnaeus, 1758

Mus musculus Linnaeus, 1758: 62 (type locality: Sweden, Upsala); Won, 1968: 178; Yoon et al., 2004: 121.

Mus molossinus Temminck, 1845: 51 (type locality: Japan); Woon, 1967: 249.


Mus molossinus utsuryonis Mori, 1938: 16 (type locality: Japan).
Korea, Ulleung Island); Kaneko and Maeda, 2002: 14.  
*Mus musculus utsuryonis*; Won and Woo, 1958: 88; Jones and Johnson, 1965: 395.  
*Mus bactrianus yamashinai* Kuroda, 1934: 234 (type locality: Korea, Mokpo).  
*Mus (Mus) musculus*; Carleton and Musser, 2005: 1398.

**Common name.** House mouse.  
**Korean locality.** Entire region.  
**Distribution.** Whole world except Antarctica.  
**Remarks.** This species is known inhabiting the entire region, including all islands, of the Korean Peninsula. Five subspecies were reported in the world. Additional researches are needed to find out which is inhabiting the Korea.

18*Genus Rattus* Fischer de Waldheim, 1803

28*Rattus norvegicus* (Berkenhout, 1769)  
*Mus norvegicus* Berkenhout, 1769: 5 (type locality: Britain).  
*Mus caraco* Pallas, 1778: 91 (type locality: Russia, E Siberia).  

**Common name.** Brown rat, Norway rat.  
**Korean locality.** Entire region.  
**Distribution.** Whole world (residential area of humans).  
**Remarks.** This species is known inhabiting the entire region, including all islands, of the Korean Peninsula.

38*Rattus tanezumi* (Temminck, 1844)  
(Korean name: Dongyangjibzui)  
*Mus tanezumi* Temminck, 1844: 51 (type locality: Japan, Kyushu Island).  
*Mus alexandrinus* Geoffroy, 1803: 192.  
*Rattus rattus alexandrinus*; Kuroda, 1934: 234.  
*Rattus norvegicus longicaudus* Mori, 1937: 42 (type locality: Korea, Ulleung Island).  
*Rattus tanezumi*; Carleton and Musser, 2005: 1489.

**Common name.** Oriental house rat, Asian rat, Tanezumi rat.  
**Korean locality.** Entire region.  
**Distribution.** Korea, S and C China, SE Asia, E Afghanistan, C and S Nepal, Bhutan, N India, N Bangladesh and NE India, mainland Indochina, Malay Peninsula, Philippines, W New Guinea.  
**Remarks.** The population of *R. rattus tanezumi* was known inhabiting South Korea by Koh (1992). *R. rattus tanezumi* was raised to species grade by Carleton and Musser (2005). Two species, *R. rattus* and *R. tanezumi*, are known as inhabiting Korea, but we cannot confirm form as *R. rattus* among those specimens. Thus, *R. rattus* is excluded from the Korean checklist in this study. A new Korean name ‘Dongyangjibzui’ is proposed for the species *R. tanezumi*.

48Suborder Hysticomorpha  
58Infraorder Hystricognathi  
68Family Myocastoridae  
78Genus *Myocastor* Kerr, 1792

88*Myocastor coypus* (Molina, 1782)  
(Korean name: Keunmulzui)  
*Mus coypus* Molina, 1782: 287 (type locality: Rio Santiago Prov.).  
*Myocastor coypus* Kerr et al., 1792: 225.  
*Myocastor coypus*; Yoon et al., 2004: 141; Woods and Kilpatrick, 2005: 1593.

**Common name.** Coypu, Nutria.  
**Korean locality.** South region.  
**Distribution.** Korea, S Brazil, Paraguay, Uruguay, Bolivia, Argentina, Chile.  
**Remarks.** This species is the famous animal pest in Korea. Many numbers escaped and are breeding in nature, and so designated as an injurious wild animal. A new Korean name ‘Keunmulzui’ is proposed for the species *M. coypus*.

**TAXONOMIC NOTES AND REMARKS**

*Apodemus sylvaticus* (Muridae, wood mouse) was reported indistinctly in the 1970s. Since then, the species has not been
reported at all (Yoon et al., 2004). The species has been distributed from Europe to South Africa. We cannot confirm habitation information for the species in Korea and neighbors, such as China, Japan, and Russia. Therefore, we exclude the species from the checklist.

*Rattus rattus*, also called the black rat, roof rat and ship rat, is a sibling species with *R. tanezumi*. The species known as *R. rattus* has proven to be *R. rattus tanezumi* by Koh (1992). *Rattus rattus tanezumi* was raised to the species grade by Carleton and Musser (2005). We gave the species, a Korean name *R. tanezumi*.

The species known as *Crocidura suaveolens* in Korea was changed to *C. shantungensis* by Jiang and Hoffmann (2001). The species inhabiting Jeju Island and called *C. dsinezumi* was known by different characters from specimens of *C. d. szinai* from Japan by Motokawa et al. (2003). The population in Jeju Island was placed as a subspecies of *C. shantungensis*. Therefore, *C. shantungensis* was divided into two subspecies: *C. shantungensis shantungensis* and *C. shantungensis quelpartis*.

*Myocastor coypus*, called the Nutria, is the famous animal pest gnawed into the river wall and crops in Korea. Even if the species is exotic, we gave the species a new Korean name because the species is breeding in Korea.

The species name of *Tamias (Eutamias) sibiricus barberi*, called Siberian chipmunk, inhabiting Korea, was used again because the species is breeding in Korea. We gave the species a new Korean name *C. shantungensis*.

*Myocastor coypus* was reported for *C. shantungensis* by Jiang and Hoffmann (2001). The genus *Myocastor* has been divided with two subgenera, *Sorex* and *Ognevia*, for the Korean shrew (Hutterer, 2005). Therefore, the next ten species are added to subgenus: *Sorex (Sorex) caecutiens*, *S. (S.) daphaenodon*, *S. (S.) gracillimus*, *S. (S.) isodon*, *S. (S.) unguiculatus*, *S. (Ognevia) mirabilis*, *Sciurus (Sciurus) vulgaris mantchuricus*, *Tamias (Eutamias) sibiricus barberi*, *Microtus (Alexandromys) fortis*, *Mus (Mus) musculus*.

Because *Sorex caecutiens hallamontanus* was reported for the first time by Ohdachi et al. (2005), as a subspecies of *S. caecutiens*, the species name on the continent was transferred to subspecies rank (*S. caecutiens caecutiens*). We changed the Korean name of the species and reorganized the taxonomic position. These species are as follows: *C. shantungensis quelpartis*, *S. (S.) unguiculatus*, and *Myodes rafocanus*.

A large number of synonyms of each species and taxonomic researches were reevaluated while performing this study. Since many papers of taxonomical result have been reported fragmentarily, researchers who use the scientific names are confused in determinations and the use of available names. We hope that this paper helps the researchers studying the Korean small mammals.

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