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We analyzed partial sequences of mtDNA control region and cytochrome b gene of the Korean red squirrel (*Sciurus vulgaris coreae* from Korea, and these sequences were compared with those of six subspecies, including *coreae*, in Eurasia obtained from GenBank. In the mitochondrial control region sequences of the Korean red squirrel, seven haplotypes with 0.97 to 6.14% distances were revealed, and three subspecies from Europe and subspecies *coreae* from Korea were not different. In the cytochrome b gene analyses, four haplotypes with 0.14 to 0.43% distances were revealed, and two subspecies from Japan and Transbaikalia were different from subspecies *coreae*. Therefore, it is concluded that cytochrome b gene might be a good genetic marker to recognize subspecies, and that two subspecies system by Corbet (1978) is not proper to classify subspecies in red squirrel. And it is confirmed that *manchuricus* (=coreae), *fusconigricans*, *orientis*, and *leucourus* are valid subspecies. *leucorus*

**A712 Four Species of the Shallow-water Comatulids from Geomundo Island, New Records in Korea (Echinodermata: Crinoidea)**

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A collection of crinoids at a 20 m depth of the sea in Geomundo Island is examined. Four species belonging to the family Comasteridae, order Comatulida turned out to be new to the Korean fauna. They are *Comantheria intermedia* A.H. Clark, 1916, *Coanthus japonicus* (Muller, 1841), *Coanthus solaster* A.H. Clark, 1907, and *Coanthus parvicirrus* (Muller, 1841) which are redescribed on the morphological

characteristic with illustrations. The class Crinoidea including species recorded here is first reported in Korean fauna.

**A713 Four New Earthworms of the Genus Amynthes Kinberg, 1867 (Oligochaeta: Megascolecidae) from Mt. Palgong**

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Most Korean earthworm species within the Megascolecidae belong to the genus *Amynthes*. This group is diverse and abundant in litter layers and soils in forests. Various locations of the Korean Peninsula have been studied with regard to the taxonomy of Megascolecidae (Kobayashi, 1934, 1936, 1937, 1938; Song & Paik, 1969, 1970a, 1970b, 1971, 1973; Hong & James, 2001; Hong & Lee, 2001). Four new species of Korean *Amynthes* are described from Mt. Palgong, Korea: *A. palgongensis* sp. nov., *A. minjae* sp. nov., *A. pagyeiensis* sp. nov., and *A. paiki* sp. nov. The first 3 species have 3 pairs of spermathecae, and the last has 2 pairs of spermathecae. Descriptions of the new species are provided, including illustrations of the ventral view, male pore region, and spermathecae.

**A714 A new species of Tanylarsus and an unrecorded species of Chironomus in Korea (Diptera: Chironomidae)**

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In ecological studies of chironomid midges occurring in the reclaimed rice fields (101,210,000m<sup>2</sup>) in Seosan, Chungcheongnam-do in 1997-1999, several

unidentified species were collected. A new species of the Genus *Tanytarsus* and *Chironomus javanus* (Kieffer), an unrecorded species from the Korean fauna were identified, and are fully described with illustrations. *Tanytarsus* sp. nov. was 3th dominant species in the reclaimed rice fields, occurring from late April to the end of September, with the peak density (71.8 adults/m<sup>2</sup>/day) at 3rd week of June. The absolute density of the new species population was 1,990 adults/m<sup>2</sup>/season in average of 1997-1999.

**A715 Mitochondrial Cytochrome b Gene Sequence Diversity in the Korean Hare, *Lepus coreanus* Thomas (Mammalia, Lagomorpha)**

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Partial sequences of the mitochondrial cytochrome b gene of the Korean hare (*Lepus coreanus*) were analyzed to determine the degree of genetic diversity. Nine haplotypes were observed, and the maximum Tamura-Nei nucleotide distance among them was 2.8%, indicating that the genetic diversity of *L. coreanus* is moderate. In order to clarify the Korean hare's taxonomic status and relationship with the Manchurian hare (*L. mandchuricus*) and the Chinese hare (*L. sinensis*), these nine haplotypes of the Korean hare were compared with 13 haplotypes from other five species of eastern Asian *Lepus* including *L. mandchuricus* and *L. sinensis*. The Korean hare was distinct in its cytochrome b gene, and it is confirmed that *L. coreanus* is a valid species, as noted by Jones & Johnson (1965).

**A716 A New Record of Scyphomedusa (Semaestomeae, Pelagiidae) from Geojedo Island, Korea**

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Some scyphomedusae were collected from the coasts of Geojedo Island (Changson), Korea on 26th June 2000. They were found in groups together, and identified into *Chrysaora melanaster* Brandt, 1838 of the order Semaestomeae. Bell light brown, about 90mm wide, flatter than hemispherical in preservation. 32 reddish-brown radial lines upon exumbrella. Oral lobes with finely frilly margin, about 3-4 times as long as bell diameter, 4 in number. Tentacles reddish brown color, laterally compressed, 3-5 per octant. Radial canals 16, rhopalia 8, lappets 48 in number and no ocelli. It is similar with *Dactylometra quinquecirrha* in many taxonomic characters. But it is readily distinguished from the latter which has 16 radial lines. As a result, 3 scyphomedusae are reported from Korean waters so far.

**A717 Zoeal Stages of *Philyra kanekoi* Sakai, 1934 (Crustacea: Decapoda: Leucosiidae) Reared in the Laboratory**

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The zoeal stages of *Philyra kanekoi* Sakai, 1934 from hatching were obtained by laboratory rearing. Three zoeal stages were described and illustrated in detail. Zoeal morphology is compared with that of other described species of the family Leucosiidae and a provisional key was provided. Morphological comparisons with congeneric species revealed that zoeas of *P. kanekoi* to be more similar to zoeas of *P. pisum* and *P. platychira* than to zoeas of three other *Philyra* species. But the present material could be identified by having no dorsal