S-3 **Five New Species of Korean Amynthas (Oligochaeta, Megascolecidae)**

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Most Korean earthworm species within the Megascolecidae belong to the genus *Amynthas*. This group is known to be diverse and abundant in litter layers and soils in forests.

The present study deals with 5 new species from Korea. Korean *Amynthas* vary in numbers of spermathecal pores; two pairs, three pairs, four pairs, five pairs, and none. Spermathecal pores of the species with 2 pairs are situated at the following segments: 5/6 and 6/7, 6/7 and 7/8, 7/8 and 8/9. The 5 new species aforementioned are 5/6-6/7 and presumed to be endemic to Korea.

S-4 **Origin of Hawaiian Drosophilids inferred from alcohol dehydrogenase gene sequences**

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The evolution of Hawaiian drosophilids (including drosophiloid and scaptomyzoid species) has been thoroughly studied from various points of view, including morphology, behavior, cytology, and molecular phylogenetics. In spite of these studies, the origin of Hawaiian drosophilids is still controversial.

To clarify the origin of Hawaiian drosophilids, we determined *Adh* gene sequences for species of the genus *Drosophila* and related genera. The phylogenetic tree obtained from minimum evolution method with Juckes-Cantor distance showed that Hawaiian drosophilid lineage is more closely related to the *virilis-repleta* lineage than to the *immigrans-Hirtodrosophila* lineage. Within Hawaiian drosophilid lineage, Hawaiian *Drosophila* formed a monophyletic cluster separated from scaptomyzoid and *quinaria* section of subgenus *Drosophila*. In topology, our data shows that Hawaiian drosophilids may have the Oriental origin(s). However, we failed to find closely related convincing outgroup(s) for the Hawaiian specific clade and to resolve origin for Hawaiian and non-Hawaiian scaptomyzoid species.