Podostemaceae of Cambodia, Laos and Vietnam.

Masahiro Kato  1, @  , Satoshi Koi  2

1 : Department of Botanty, National Museum of Nature and Science

Tsukuba 305-0005 -  Japon

2 : Botanical Garden, Osaka City University

Katano 576-0004 -  Japon

The river-weed family Podostemaceae of Southeast Asia was previously recorded to comprise 8 genera and 13 species (Cusset 1972, 1992). This ecologically specialized family is often difficult to access, resulting in only few collections in the past. Recent studies showed that the family comprises 10 genera and 50 species in Thailand. In comparison, the family of Cambodia, Laos and Vietnam was poorly known. In recent field studies, we found 5 genera and 8 species in Cambodia, 8 genera and 30 species in Laos, and 5 genera and 8 species in Vietnam. Future exploration will certainly find more species in these areas. Podostemaceae of Laos are species-rich and a little less than in Thailand, together forming a biodiversity hotspot for the family in Asia. There are morphologically and biogeographically remarkable species, one of which is Hydrodiscus koyamae of Laos. This species is distinct from Hydrobryum in the presence or absence of the root and the shoot morphology, but both together form a single clade. The genus Hydrobryum was characterized by having crustose roots, while the root of some species of Laos is ribbon-like, as in other genera. A phylogenetic analysis shows that Southeast Asian Cladopus pierrei is paraphyletic with regard to C. doianus of China and Japan, indicating that C. doianus was derived from among the variation of C. pierrei.