A New Host Record for a Cecidophagous Molytine Weevil, *Darumazo distinctus* (Coleoptera, Curculionidae)

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Gall-eating habit (cecidophagy) is very unusual in weevils, known only in the specific taxa (SUGIURA & YAMAZAKI, 2009). The genus *Darumazo MORIMOTO et MIYAKAWA*, 1985 is very small apterous ithyporine weevil (Curculionidae, Molytinae) with narrow gourd-shaped body. *Darumazo* is presently monotypic and endemic to Japan though several undescribed species occur in Japan and Taiwan (MORIMOTO & MIYAKAWA, 1985). The type species, *D. distinctus* MORIMOTO et MIYAKAWA, 1985, occurs in the warm temperate areas of Japan such as the

Figs. 1–4. Biology of *Darumazo distinctus*. —— 1, *Illex integra* with axillary bud galls most probably induced by *Asteralobia sasaki* on Hachijô-jima Is.; 2, a larva in a midge gall (scale bar=1 mm); 3, midge galls on *Illex integra* on Hachijô-jima Is.; 4, ditto, on other shoot.
Izu Islands, Honshu (Fukui, Mie, and Gifu Pref.s.), Kyushu and the Ryukyus (FUJII et al., 2012). No biological information had been available on this weevil until just recently, but FUJII et al. (2012) reported on the association with axillary bud galls induced by Asteralobia sasakii (MONZEN, 1937) (Diptera, Cecidomyiidae) on Illex crenata THUNB. var. hachijoenis NAKAI (Aquifoliaceae) based on three adult individuals.

Recently, the author collected a number of adults on Illex integra THUNB. with axillary bud galls most likely induced by A. sasakii on Aogashima and Hachijô-jima Islands of the Izu Islands, Tokyo. Also, five curculionid larvae were found from inside of the axillary bud galls by dissection under a stereoscopic microscope, and an adult of D. distinctus was reared from it in a plastic case containing the galls.

Among weevils, cecidophagy has been known in the particular species of the families Apionidae (two species of Melanapion WAGNER) and Curculionidae (KOROTYAEV & EGOROV, 1995; REDFERN & ASKEW, 1992; SUGIURA & YAMAZAKI, 2009). Among the Curculionidae, it has been known more widely than Apionidae: the tribes Anthonomini (one species of Anthonomus GERMAR), Curculionini (several species of Curculio LINNAEUS and Archarius GISTEL), Ellescini (one species of Dorytomsus GERMAR) and Rhamphini (one species of Orchestes ILLIGER) of the Curculioninae, the Ceutorhynchinae (one species of Wagnerinus KOROTYAEV), and the Conoderinae (one species of Philides CHAMPION) attack insect galls, and the Molytinae (one species of Pissodes GERMAR) attacks rust fungus (SUGIURA & YAMAZAKI, 2009).

In this short paper, the author reports a cecidophagous habit of D. distinctus as the first representative confirmed to attack insect gall in the Molytinae and records the gall of A. sasakii on I. integra as a new host of the weevil in addition to that on I. crenata.

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In weevils, cecidophagy is presumed to be acquired independently on several occasions from other types of feeding habits, such as leaf mining, seed-feeding, and bud-feeding (SUGIURA & YAMAZAKI, 2009). As weevils of the tribe Ithyporini are generally stem- and branch-borers or phloem-feeders (KALSHOVEN, 1956), Darumazo may have acquired cecidophagous habit from wood-boring. It is necessary to confirm if the feeding habit of D. distinctus is facultative or obligatory.

References

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