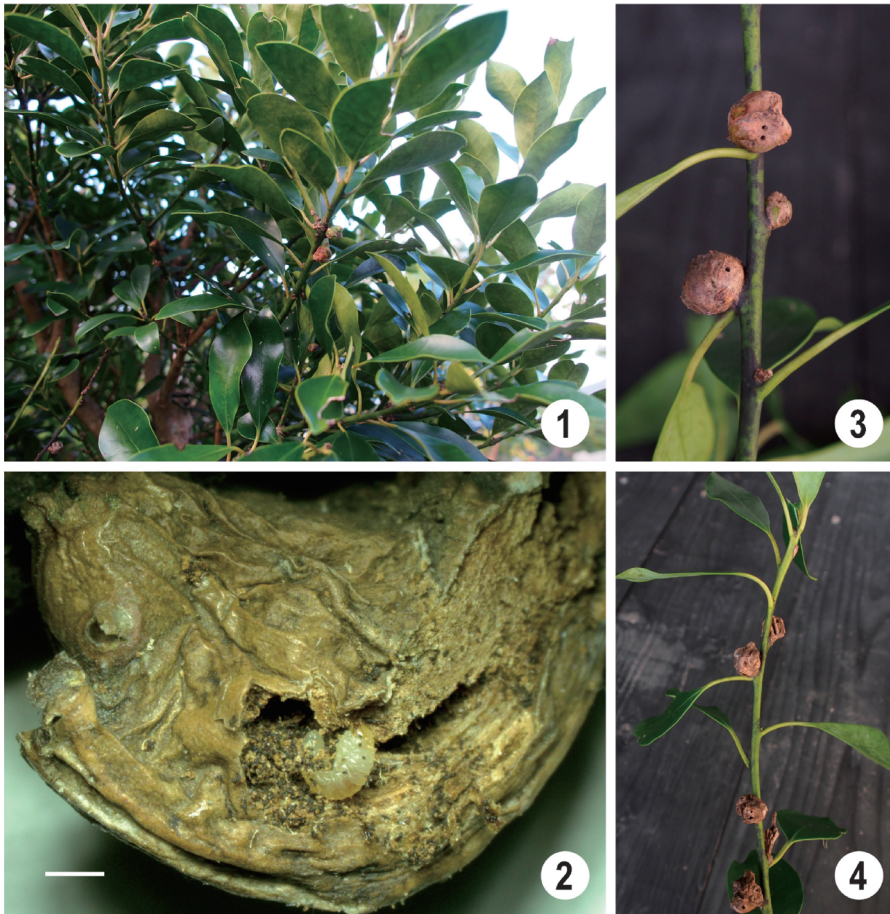


A New Host Record for a Cecidophagous Molytine Weevil, *Darumazo distinctus* (Coleoptera, Curculionidae)

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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 sasakii* on Hachijō-jima Is.; 2, a larva in a midge gall (scale bar=1 mm); 3, midge galls on *Illex integra* on Hachijō-jima Is.; 4, ditto, on other shoot.

Izu Islands, Honshu (Fukui, Mie, and Gifu Prefs.), 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. *hachijoensis* 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 Hachijō-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, cecidophagous habit 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 *Dorytomus* 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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Specimens examined. Japan: Izu Islands. 14 exs., Okabe, Aogashima Is., 9–XI–2012 (adults); 11 exs., Mitsune, Hachijō-jima Is., 12–XI–2012 (adults); 1 ex., XII–2012 (adult reared from gall); 2 exs., 15–XI–2012 (larvae extracted from galls); 3 exs., 9–I–2013 (larvae extracted from galls).

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.

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