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Taxonomic Studies of *Cirsium* (Asteraceae) in Japan XVIII. A New Subsection and Four New Species from Kyushu, Southern Japan

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Fig. 7. Habit of *Cirsium akimotoi* Kadota et Masami Saito (Mt. Shiraiwa-yama, Gokase-cho, Nishi-Usuki-gun, Miyazaki Pref., alt. 1581 m, on 9 October 2008). Left corner inset shows a capitulum.

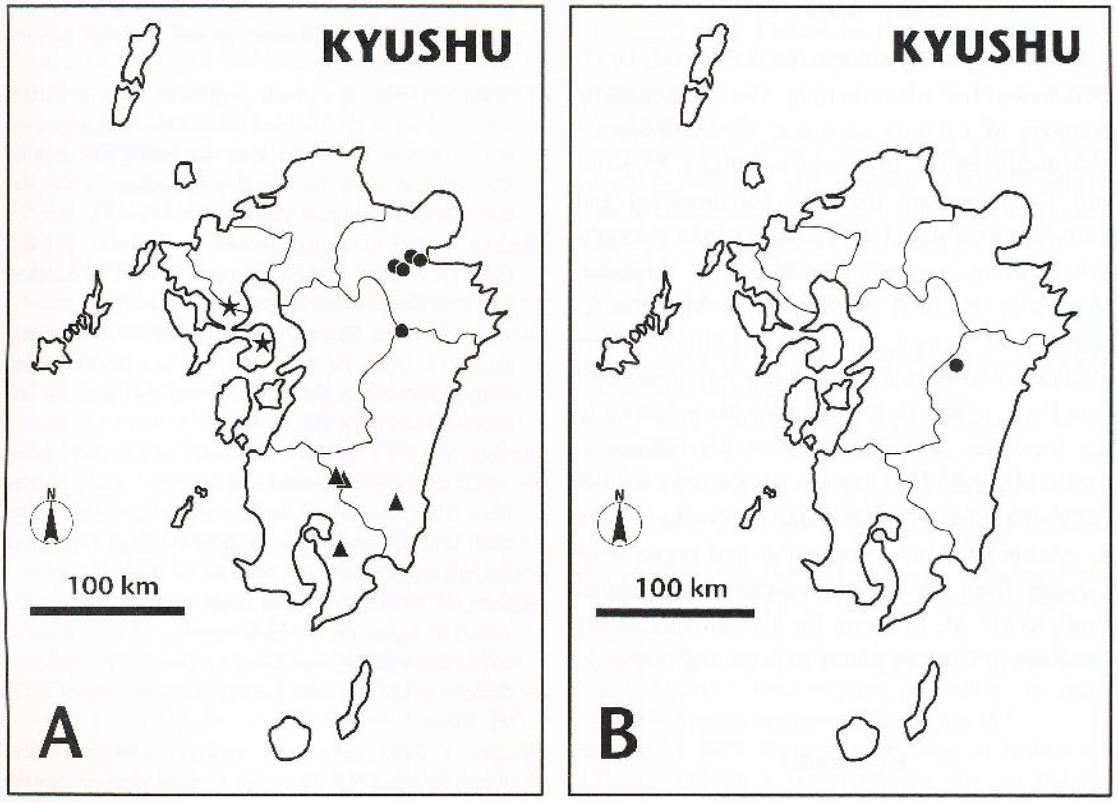

Fig. 9. Distribution of *Cirsium* species in Kyushu. A. Sect. *Onotrophe* subsect. *Tsukushicola*. Triangle. *C. kirishimense* Kadota et Masami Saito. Disc. *C. kujuense* Kadota. Star. *C. unzenense* Kadota et Masami Saito. B. *C. akimotoi* Kadota et Masami Saito (sect. *Onotrophe* subsect. *Suffulta*).

shorter than the inner ones, herbaceous, terminated with sharp spines ca. 3 mm long. Corollae pale violet, 19–22 mm long; lobes 4–5 mm long; throats 6–7 mm long; tubes 9–11 mm long, longer than the throats. Achenes pale purplish gray, 3.5–4 mm long, ribbed and slightly striate; pappus sordid, (14–)18–22 mm long.

Chromosome number: $2n = 4x = 68$.

Japanese name: Shiraiwa-azami (nom. nov.).

Distribution: Kyushu (Mt. Shiraiwa-yama, the Kyushu Mountain Range, Miyazaki Pref.; Fig. 9, B). Endemic to Japan.

Additional specimens examined: JAPAN: KYUSHU: **Miyazaki Pref.**, Nishi-Usuki-gun, Gokase-cho, Mt. Shiraiwa-yama, 32°33′57.0″N 130°06′35.9″E, alt. 1851 m, 9 Oct. 2008, Y. Kadota 088001–088009, 088011–088012 (TNS 776491–776508, 776510–776514).

The specific epithet is dedicated to Mr. Osamu Akimoto who has devoted himself to the protection of plant and wildlife in Mt. Shiraiwa-yama, Miyazaki Prefecture, Kyushu.

Cirsium akimotoi is distinguished from *C. suffultum* by (8–)9–10-seriate involucral phyllaries and hermaphrodite florets; from *C. pseudosuffultum* Kadota by having ovate to broadly ovate, deeply pinnatilobate cauline, leaf lobes ascending at an acute angle, larger capitula, longer, spreading (patent) to ascending involucral phyllaries, shorter achenes and linear, vestigial glandular bodies only on the involucral phyllaries.

Cirsium akimotoi grows under scattered *Fagus crenata* woods and in herbages among limestones exclusively in the summit area of Mt. Shiraiwa-yama.