Carex ×ishimaensis, a Hybrid between Carex boottiana and C. subdita (Cyperaceae, Sect. Rhomboidales) from Ishima Island, Tokushima Prefecture, Japan

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Ishima is a small island (1.45 km²) located about 6 km east of Gamoda-misaki, Anan-shi, Tokushima Pref., Shikoku (Fig. 1A). In this island we found a strange sedge growing on the slope along the trail (Fig. 1B). This plant is similar to Carex boottiana Hook. & Arn., but the plant is more slender (Fig. 1C). As the perigynia are abortive, it is suggested that the sedge is a hybrid between C. boottiana and another species. These putative hybrids were growing sympatrically with C. boottiana, C. subdita Ohwi (= C. insaniae Koidz. var. subdita (Ohwi) Ohwi) and C. duvaliana Franch. & Sav. Carex bootiana and C. subdita belong to sect. Rhomboidales (Jin and Zheng 2013, Katsuyama 2015), while C. duvaliana belongs to sect. Mitratae Kük. and has much narrower hairy leaves and smaller perigynia than those of sect. Rhomboidales. As the putative hybrid has glabrous leaves and perigynia as large as those of C. bootiana and C. subdita, hybridization between C. boottiana and C. duvaliana might hardly be supposed. Therefore it was suggested that this sedge is a hybrid between C. boottiana and C. subdita, and we performed some examinations to verify the presumption.

Materials and Methods

Morphological observations were made using materials collected from Ishima Island. Seven individuals referable to the putative hybrid were available, so the same number of individuals of C. boottiana and C. subdita were arbitrary selected from as near the hybrid as possible (Table 1). For the gross morphology, we measured the length of culm, the length of staminate and pistillate spikes, the leaf width, and the length of the teeth of the beak of perigynia.
emarginated, cuspidate with 0.5 mm long awn with bristles, light brown to brown. Pistillate scales ovate 4.5–5.5 mm long, cuspidate to aristate, awns with bristles, 0.7–2 mm long, light brown with central green part. Perigynia ovate, glabrous to faintly pubescent, 4.5–5 mm long, light green, beak 1.8–2.2 mm long with bristles, teeth 0.8–1.3 mm long. Achenes immature with coiled style base. Stigmas 3.

Japanese name: Ishima-suge (nov.).

Other specimens examined: See Table 1.

Habitat: The edge of evergreen forest near the seashore, 30–70 m alt.

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References


