Notes on *Funaria* (Funariaceae, Bryopsida): *Funaria japonica*, syn. nov. of *Funaria serrata*

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Abstract. *Funaria japonica* Broth. is proposed as a new synonym of *Funaria serrata* Brid.

Introduction

*Funaria japonica* was described from Japan (Kyushu, Nagasaki-ken) by Brotherus (1899) and reported also by Noguchi (1988). I discovered that *Funaria japonica* has a close similarity with *Funaria serrata* Brid. Examination of North American specimens of *Funaria serrata* supported my conclusion that *F. japonica* is identical to *F. serrata*. Description, specimens examined, distribution, and illustration of *F. serrata* are included.

1. *Funaria serrata* Brid., Spec. Musc. 3: 70 (1817). Fig. 1.  

*Funaria japonica* Broth., Hedwigia 38: 216 (1899), syn. nov.

Plants small, stem 2.8–4.5 mm long, erect, simple. Leaves crispate to contorted when dry, erect to spreading when moist, elliptic to oblong-lanceolate, 2.5–2.9 × 0.9–1.0 mm, acute or short-acuminate; margins entire, serrate above; costa subpercurrent; median laminal cells oblong-hexagonal, 41–67 μm long, 21–29 μm wide, somewhat longer and narrower at the margins forming a border, basal cells rhombic-hexagonal to rectangular, 90–130 μm long, 25–35 μm wide.

Setae 10.0–12.5 mm long, flexuose, reddish-brown; capsule inclined, mostly pyriform, 1.4–1.7 mm long, with a large apophysis, mouth oblique; stomata immersed; annulus absent; opercula convex, slightly mucronate, ca. 0.3 mm long; peristome double, exostome teeth well developed, oblique, linear-lanceolate, 280–320 μm long, 75–90 μm wide at base, moderately trabeculate, vertically papillose-striate, endostome segments opposite the teeth, as long as the teeth, papillose with a basal membrane, cilia absent; spores 25–30 μm in diam., papillose.


Specimens examined: North America. Louisiana, Low, mixed woods along Barnes Creek, ca. 5 mi sw of Reeves. Pine forest around, on an exposed bank, Reese 8793 (NICH), Abundant in small areas...
along wooded banks of the Vermilion River, ca. 6 mi s of Lafayette, Reese 11346 (NICH); Japan. Honshu, Shimane-ken, Oki-gun, Ama-cho, Chichii-misaki cape, ca. 90 m alt., on soil, Y. Tateishi 19445 in NICH; Kyushu, Miyazaki-ken, Nichinan-shi, Miyaura, Udo-shrine, 100 m alt., on soil, M. Matsumoto 2913 in NICH.

Distribution: North America and Japan (Honshu, Shikoku, Kyushu).

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Literature cited

Fig. 1. *Funaria serrata* Brid.: a, plant. b, leaf. c, cells at leaf apex. d, cells at median part of leaf. e, cells at basal part of leaf. f, peristome teeth. g, spores. All figures were taken from Y. Tateishi 19445 in NICH.