Sinske HATTORI*: A remarkable species of Frullania (Hepaticae) from Java

服部新佐*: ジャパ産ヤスデゴケ属（苔類）の特殊な新種

Recently Dr. N. Kamimura, Kochi Gakuen College, kindly sent me some Frullania collections made in Java and other regions of tropical Asia at my request. In one of these collections I found several shoots of a very tiny species creeping over the plant of Frullania ornittocephala. The lobes of stem-leaves of this species bear several marginal teeth at the distal 1/3. The species with such a toothed leaf-lobe has not previously been known in Asia except for F. schiffneri and F. vaginata of subgen. Meteorioptis and some species in New Guinea. This species, however, does not seem to have any close relationship to New Guinean members with the toothed leaf-lobes.

**Frullania** (subgen. Frullania) dentiloba Hatt., sp. nov.

Planta minuta, alis hepaticis intermixta; caulis ca. 15 mm longus, pauciramosus; folia caulina parva, apice valde involuta, ca. 5-dentata, basi truncata, lobulo longo, cylindrico, stylo parvo, filiforme; amphigastria caulina majora, margine anguste sed arcte repando- vel angulato-recuro, saepius minute unidentato, 1/3 vel minus bifida, sinu subacuto, angusto, lobis triangulatis, acutis; androecia in caule lateralia, subsessilia, oblongo-capitata bracteis 4-6 jugis. Gynoecia ignota.

Plants minute, red-brown in herbaria, intermingled within a mat of much larger *Frullania ornittocephala*; stem ca. 15 mm long, 0.13 mm in diam., dark red-brown, ca. 0.65 mm wide with leaves, branches few (1-3 per stem), very short and remote, widely to more or less obliquely spreading. Lobes of stem-leaves slightly to moderately imbricate, obliquely spreading (at angles of ca. 30° with the stem), dorsally extending ca. 1/2 the stem-width beyond the farther edge of stem, concave with strongly involute apex, when flat oblong-ovate, ca. 0.55 mm long and 0.4 mm wide.

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apex obtuse to subacute and with distinct apical tooth (uniseriate portion of which is usually 4 cells long), also with 4-5 smaller teeth scatteredly along margin at distal 1/3, dorsal margin usually with recurved outermost row of marginal cells, base truncate, insertion short, oblique; cavities of marginal cells yellow-brown and 10-12×10 μ, of median cells brownish-yellow and 20-30×10-15 μ, of basal cells reddish-brown and 30-45×15-25 μ, walls of marginal to median cells thickened due to large and confluent trigones (intermediate thickenings rarely occur), subhyaline along middle lamellae, deep-brown (to more or less reddish-brown) along outer portion,

Fig. 1. a-i. Frullania dentiloba Hatt. a. Portion of stem, ventral view, ×67. b. Leaf on stem, adjacent underleaf dissected away, ×67. c-d. Stem-leaves, c ×67, d (flattened) ×54. e. Apex of lobe of stem-leaf, ×260. f. Stem-underleaf, ×67. g-i. Cells of lobe of stem-leaf: g from margin; h from middle; i from base; all ×550. Drawn from type.
walls of basal cells with large, nodulose trigones (and occasionally with intermediate thickenings), blackish-brown along middle lamellae, deep brown along outer portion; lobules nearly parallel with the stem, comparatively large, cylindric, with obtuse apex and subtruncate mouth (mouth-margins mostly crenulate), ca. 0.26 mm long, 0.12 mm wide at middle and 0.1 mm wide at mouth; stylus small, filiform, 6-7 cells long, uniseriate at upper half, tipped with hyaline papilla. Stem-underleaves slightly imbricate (to contiguous), comparatively large, nearly flat and almost appressed to the stem, narrowly but strongly recurved along margin, oblong, ca. 0.45 mm long and 0.35 mm wide, less than 1/3-bifid, sinus subacute, narrow, lobes triangular, acuminate-acute, margin irregularly repand- to subangular-recurved and often with 1 minute tooth or very weak dentation, rhizoid-initial area indistinct, rhizoids rarely seen, hyaline, fasciculate, shorter than the underleaves, attached firmly to the plant of other Frullania (F. ornithocephala), insertion transverse. Leaves and underleaves of branches smaller than but similar to those of stem. Dioicous? (gynoecia not seen). Androecial branches nearly sessile (with 1-2 pairs of deformed leaves), of the Frullania-type, lateral on the stem, androecia oblong-capitate with 4-6 pairs of compact bracts, bract-lobes without marginal teeth, the lobule similar to the lobe but with 1-3 small teeth along ventral margin, bracteole absent (ventral merophyte reduced).

Type: Java, Bogor, Mt. Tjibodas, 1400 m, on bark of tree (intermingled within a mat of F. ornithocephala), Aug. 17, 1972, Coll. M. Okabe et al. no. 5. Type in NICHI.

Distr.: Endemic.