

Tairoku AMAKAWA*: Notes on Japanese Hepaticae (13)

尼川大録*: 日本産苔類報告 (13)

(39) The genus *Archilejeunea* of the Ryukyus.

A single species of the genus *Archilejeunea*, *A. kiushiana*, is distributed in the south-western region of Proper Japan. The species will possibly be found also in the Ryukyus. Recently I found a common tropical Asian species, *A. mariana* and a new species, *A. falcata* in the collection of Mr. T. Takara from Isl. Ishigaki of the Ryukyus. These three species are distinguished each other as in the following key.

- | | |
|----|--|
| 1. | { Plants dark green—blackish; leaf-lobule large, 1/2 the length of leaf-lobe and nearly flat <i>A. kiushiana</i>
Plants olive-green—brownish; leaf-lobule smaller, 1/3–2/5 the length of leaf-lobe and inflated.....2 |
| | |

Archilejeunea mariana (Gott.) Steph., Spec. Hepat. 4: 729 (1911), (Fig. 24).

Plants olive-green to brownish, in depressed mats. Stems 1 cm long, 0.13 mm thick, with leaves 1.2–1.4 mm wide, irregularly branched. Rhizoids few. Leaves imbricate, obliquely to widely spreading. Keel slightly curved. Dorsal lobe convex, in plane oblong-ovate, somewhat falcate, 0.7–0.8 mm long, 0.4–0.5 mm wide, apex rounded to obtuse (rarely subacute), incurved, antical margin arching up to, or passing a little the further edge of stem, postical margin forming a lunate sinus with keel, often involved forming a continuous line with keel. Cells along the leaf-margin 8–9.6 × 6.4–8 μ, walls thickened, in the middle 16–24 × 12–16 μ, towards the base 24–40 × 16 μ, walls thin with conspicuous intermediate thickenings, trigones large, nearly acute or slightly bulging; cuticle smooth. Lobule rectangular-oblong, 0.32 mm long, 0.11 mm wide, inflated along the keel, apex truncate, apical tooth projecting, composed of 2 cells, the second tooth nearly reduced. Underleaves contiguous to imbricate, orbicular, 0.35–0.4 mm long and wide, 3 times as wide as the stem, entire, appressed to the stem or

* Shuyukan High School, Fukuoka. 福岡市, 修猷館高等学校。

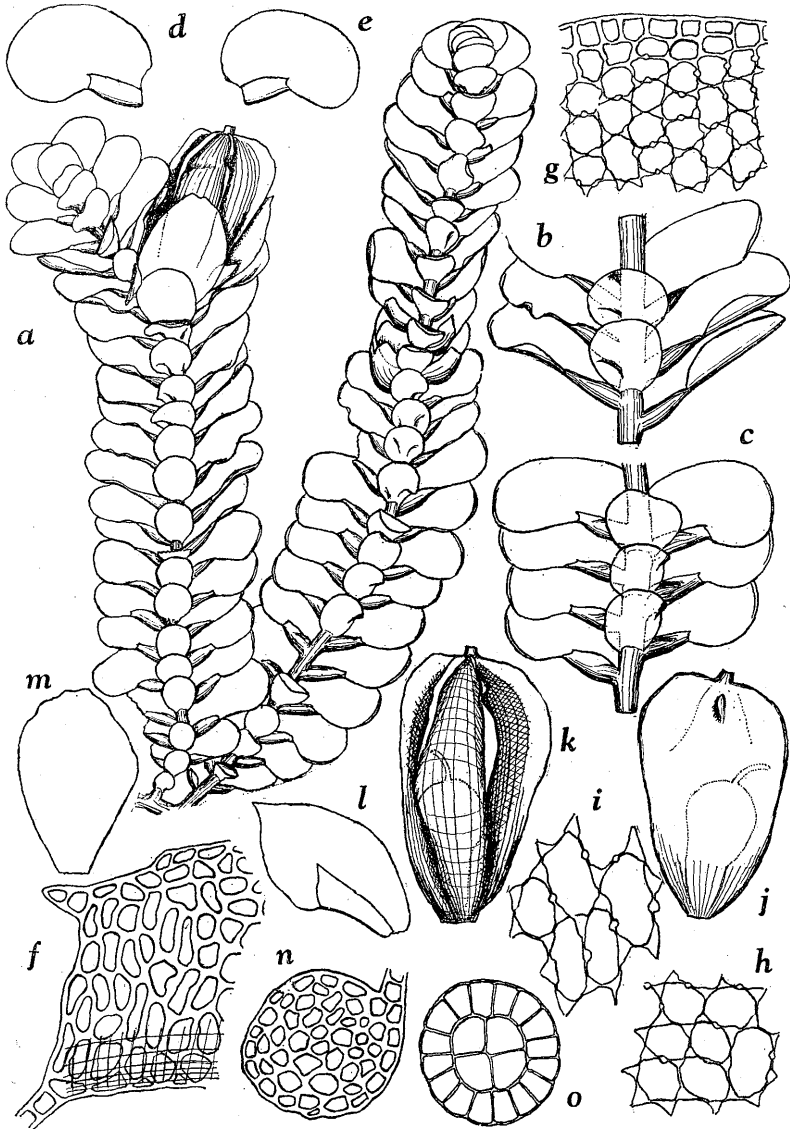


Fig. 24. *Archilejeunea mariana* (Gott.) Steph. a. Part of plant with male and female inflorescences, ventral view. $\times 17$. b, c. Part of stems, ventral v. $\times 28$. d, e. Leaves. $\times 28$. f. Apex of leaf-lobule. $\times 355$. g. Cells along leaf-margin. $\times 355$. h. Cells from leaf-middle. $\times 355$. i. Cells from leaf-base. $\times 355$. j. Perianth, dorsal v. $\times 28$. k. Do., ventral v. $\times 28$. l. Female bract. $\times 28$. m. Bracteole. $\times 28$. n. Cross-section through stem. $\times 175$. o. Cross-section through seta of sporophyte. $\times 85$. Drawn from Takara 3025.

often recurved at apex. Plants monoicous. Male inflorescences intercalary on long branches; bracts 3-4 pairs, smaller than cauline leaves in size, lobule respectively large, inflated; bracteoles almost the same as underleaves. Female inflorescences terminal on leading branches, usually with 1-2 subfloral innovations, innovating branches repeatedly floriferous; female bracts obovate, 1 mm long, 0.56 mm wide, apex obtuse to acute, margin nearly entire or inconspicuously denticulate, lobule lanceolate, about 1/2 the length of the lobe, apex acute; bracteole obovate, 0.96 mm long, 0.64 mm wide, apex obtuse, margin slightly sinuate-angulate. Perianth obovate, 1.4 mm long, 0.8 mm wide, 4-(6)-keeled, lateral keels large and winged, the ventral keels usually 2, narrowly winged, dorsal surface nearly flat, often with very small keel, occasionally a subordinate keel developing between the ventral keels. Capsule young; seta composed of 2 concentric layers of cells in the cross-section, the outer circle of 16 cells and the inner of 4 cells.

Hab. On bark. Isl. Ishigaki: Mt. Fukaiomoto, Mar. 17, 1962, coll. T. Takara 3025, 3039, 3120. Range: Widely distributed in the Indo-Malay and Oceanea, to Formosa. The first record to Ryukyu.

A. mariana seems very resemble with *Spruceanthus* species, although the former is not so large and rigid as the latter. The 4-keeled perianth, which is one of the characteristics of the *Archilejeunea*, is often going to be added 1-2 subordinate keels on its dorsal and/or ventral surface. These conditions are also often observed in the perianth of *Spruceanthus polymorphus*. Moreover, the bract of *A. mariana* becomes obtuse to acute at apex and is inconspicuously and distantly denticulate along the margin, also the bracteole is inconspicuously sinuate-angulate along the margin, although these are not finely serrate as those of *Spruceanthus*. Schiffner (1933) proposed the name var. *denticulata* for these form, but these variations seem commonly observed in the species. *A. mariana* is situated, I think, close to the *Spruceanthus*.

***Archilejeunea falcata* Amakawa, sp. nov. (Fig. 25).**

Dioica videtur; brunnea. Caulis ad 1 cm longus, ca 0.1 mm in diam., cum foliis 0.8-1.1 mm latus, dite ramosus. Folia caulina imbricata, oblique patula, dorso caulem palum superantia, convexa, in plano falcato-oblonga, 0.64 mm longa, 0.4 mm lata, apice optime rotundata, incurva, integerrima, margine antico arcuato, postico ampliato-arcuato. Cellulae apicales $9.6-12.8 \times 8-11.2 \mu$, mediae $16-19 \times 12.8 \mu$, trigonis majusculis, noduloso-acutis, incrassationibus intermediis

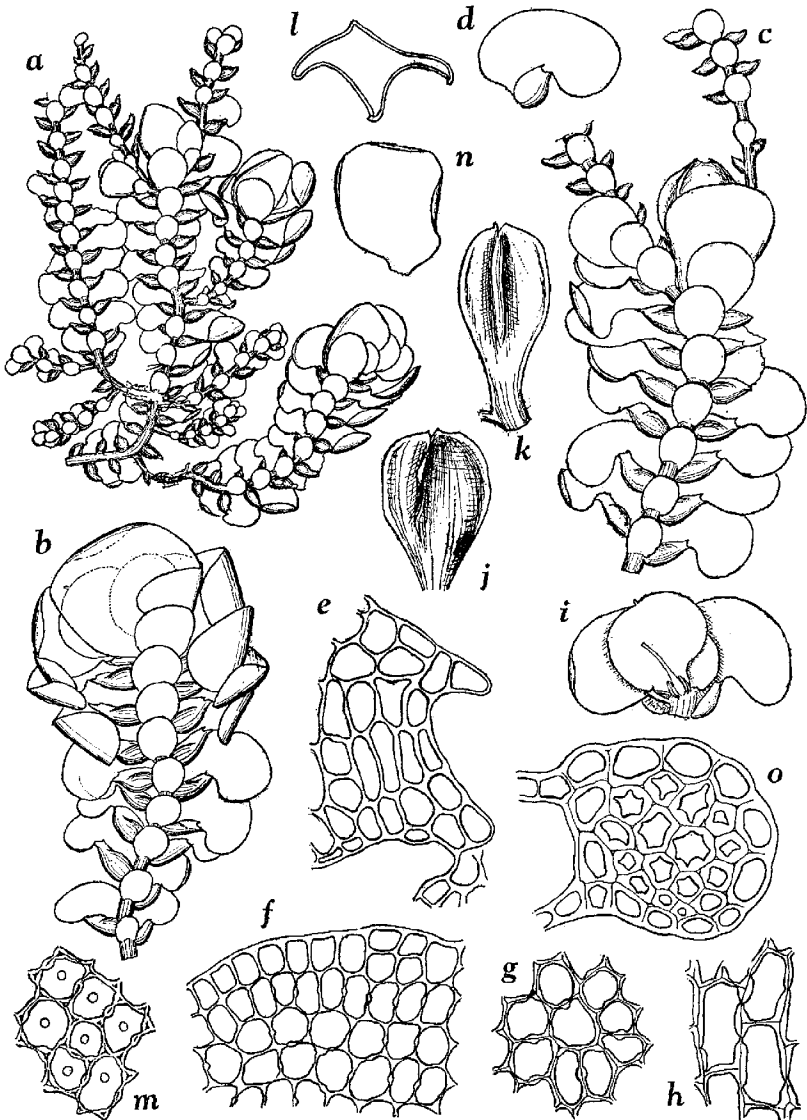


Fig. 25. *Archilejeunea falcata*. a. Plant with female inflorescences, ventral view. $\times 17$. b. Part of stem with young gynoecium, ventral v. $\times 28$. c. Part of stem with perianth, ventral v. $\times 28$. d. Leaf. $\times 28$. e. Apex of leaf-lobule. $\times 355$. f. Cells along leaf-margin. $\times 355$. g. Cells from leaf-base. $\times 355$. h. Cells from leaf-base. $\times 355$. i. Young gynoecium (bracteole and an innovation dissected), ventral v. $\times 28$. j. Perianth, ventral v. $\times 28$. k. Do., dorsal v. $\times 28$. l. Cross-section through stem. $\times 355$. m. Cells of perianth. $\times 355$. n. Bracteole. $\times 28$. o. Cross-section through stem. $\times 355$. Drawn from the type.

nodulosis, distinctis, basales $32 \times 11.2-12.8 \mu$, parietibus validiusculis, interruptis, cuticula levi. Lobulus ovatus, 0.24 mm longus, 0.16 mm latus, inflatus, apice oblique truncato, angulo breviter apiculato, apiculo dentiformi, 1-2 cellulari, carina arcuato, sinu profundo in marginem folii excurrente. Amphigastria caulina majuscula, caule triplo latiora, orbicularia, 0.24 mm longa et lata, integerrima. Gynoeccia in caule vel ramis lateralis terminalia, uno vel utrinque innovata. Folia floralia caulinis parum majora, subconformia, 0.72 mm longa, 0.5 mm lata, lobulo folio duplo vel magis breviora, lanceolato, vix soluto, apice acuto. Amphigastrium florale obovatum, 0.72 mm longum, 0.64 mm latum, integerrimum, apice incurvum. Perianthia obovata, 0.72 mm longa, 0.4-0.5 mm lata, 4-(5) plicata, plicis lateralibus late carinatis, posticis 1-(2), angustius carinatis, anticis minus longis, obtusis. Reliqua desunt.

Herb. Isl. Ishigaki: Mt. Fukaiomoto, Mar. 13, 1962, coll. T. Takara 3256-type, in herb. NICH.

The taxonomic characteristics of the present species include the quite falcate leaf-lobe with the incurved apex and the acute sinus between the postical margin of leaf-lobe and the keel. The perianth typically 4-keeled, often having a keel on dorsal and also ventral surfaces. The cells of perianth, except the marginal portion, provides a papilla on the surface of each cell cavity.

* * * * *

琉球にはヒメゴヘイゴケ属の記録はなかったが、こんど 2 種を石垣島に見出した。1 種は *Archilejeunea mariana* ナンカイヒメゴヘイゴケ (新種) で、広く熱帯アジアに分布し、台湾にまで知られていた。いま 1 種は *A. falcata* カマハヒメゴヘイゴケ (新種) と名づける新種で、葉はかま形に曲り、葉下片が上片に接する点が鋭くくびれこんだようになっていることが特色である。標本を寄せられた高良哲夫氏に謝意を表す。

○カラフトイワスゲ日本に産す (大場達之) Tatsuyuki OHBA: *Carex rupestris* found in Japan

カラフトイワスゲ (*Carex rupestris* Bellard ex Allioni) は、ヨーロッパ、北アメリカ、シベリアから満州、朝鮮、樺太に亘って分布する周北極要素のスゲであるが、筆者は 1962 年夏、赤石山系の仙丈岳の高山帯に本種を得た。仙丈岳では、大仙丈岳及びヤブ沢上部の何れも風衝の強い地域のヒゲハリスゲ、ミヤマシオガマ、ヒメカラマツ、ムカゴトラノオ、オヤマノエンドウ等より成る低小な乾燥草原に見られた。本種の花部鱗片の性質などはショウジョウスゲに近い観をあたえる。標本の検定を賜った国立科学博物館の大井次三郎博士に厚く御礼申し上げます。(横浜国立大学学芸学部生物)