Urara MIZUSHIMA*: **Critical notes on mosses (8)****
A brief report on the Sakurai's collection (1)

水島うらら*: 蘚類寸評 (8) 桜井コレクションから (1)

The Sakurai's collection kept in the Makino Herbarium of the Tokyo Metropolitan University has been studied by many authors in their course of monographic or floral works. However, some of the specimens have remained unstudied or little studied. I have re-examined the Sakurai's collection for several years, and had the chances to study some of the types or authentic specimens. The present paper aimes to clarify the problems concerning such taxa published or cited in Sakurai's paper based on his collection.

1) **Anisothecium rufescens** (With.) Lindb., Musc. Scand. 26 (1879).

Aongstroemia geniculata Sak., Bot. Mag. Tokyo **56**: 219, f. 5 (1942): Musc. Jap. 32, pl. 18 (1954), syn. nov.

Type specimen exam. Japan, Honshu, Akita pref., Kitaakita-gun, Maeda-mura, Sakurai 14390, holotype of *Aongstroemia geniculata* in herb. MAK (B. 14390).

In *Aongstroemia geniculata*, the male inflorescence is not so thickened; the perigonial leaves are larger than stem leaves but not clearly differentiated, as shown in Fig. 1A. These characters clearly show that the present species belongs to *Anisothecium* but not to *Aongstroemia*. Other characters such as the shape of stem leaves and capsules, and the length of setae are the same as in *Anisothecium rufescens* (Fig. 1B.). The geniculate setae are sometimes seen in *A. rufescens*. Therefore, I suppose that *Aongstroemia geniculata* Sak. should be reduced to a synonym of *Anisothecium rufescens*.

2) **Barbula** Hedw. sect. **Hydrogonium** (C. Muell.) Saito, Journ. Hattori Bot. Lab. **39**: 492 (1975).

Sinocalliergon Sak., Bot. Mag. Tokyo **62**: 106 (1949), syn. nov.

Barbula ehrenbergii (Lor.) Fleisch., Musc. Arch. Indic. Ser. 4, n. 161 (1901).

Sinocalliergon satoi Sak., Bot., Mag. Tokyo **62**: 108, f. 11 (1949), syn. nov.

Type specimen exam. China, Prov. Shansi, Niangtzekwan, in water, coll.

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** Continued from Journ. Jap. Bot. **45**: 155-160, 1970.

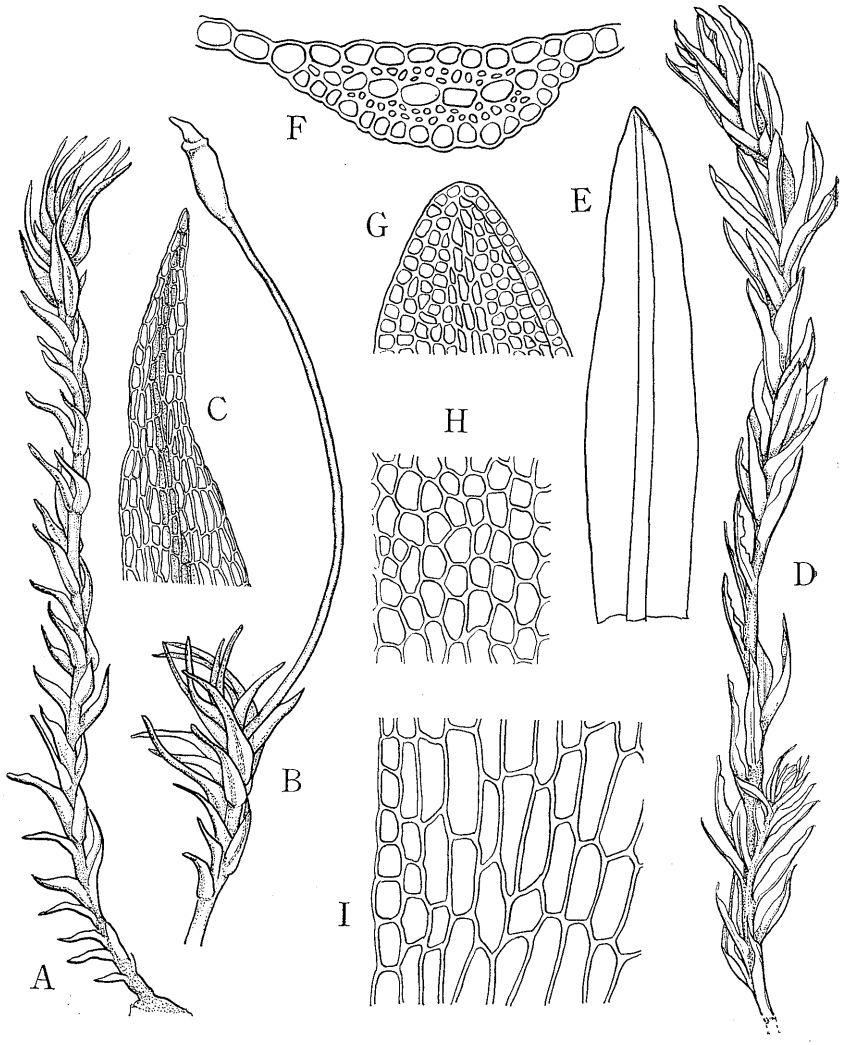

Fig. 1. A-C. *Anisothecium rufescens* (from holctype specim. of *Aongstroemia geniculata*, A–B ×12, C ×125). A. Male plant. B. Female plant. C. Apex of stem leaf. D-I. *Barbula ehrenbergii* (from holotype specim. of *Sinocalliergon satoi*, D ×6, E ×27, F-I ×270). D. Upper part of plant. E. Stem leaf. F. Cross-section of midrib. G. Apex of leaf. H. Middle part of leaf. I. Leaf base.

Masami Sato 25[1)], May 1, 1942, holotype of *Sinocalliergon satoi* in MAK, isotype in TI; Sato 24, paratype specimen of *S. satoi* collected at the same place and same time, in MAK, isoparatype in TI.

Sato (1949) reported that his collections of bryophyte from Shansi Province had been lost, but fortunately specimens deposited in Sakurai's herbarium are now kept in the Makino Herbarium and the duplicates of them are in the herbarium of Tokyo University.

When Sakurai established genus *Sinocalliergon* (Amblystegiaceae), he described only the general appearance and the surface view of the leaves. *Sinocalliergon* resembles certain phenotype of *Calliergon stramineum* (Amblystegiaceae) in general view, but the construction of the midrib of leaf in *Sinocalliergon* is very different from that of any other species of the Amblystegiaceae. In cross-section of the midrib, it consists of the upper surface stratum, the stratum of guide-cells, and the under surface stratum; the well developped stereid bunds are placed between these strata. This construction gives the solid feature to the midrib. As a result of observation and consideration of the characters mentioned above, I reached the conclusion that *Sinocalliergon* belongs to the Pottiaceae but not to the Amblystegiaceae. The members of the sect. Hydrogonium of genus in the Pottiaceae have similar characteristics to *Sinocalliergon*, which should be a synonym of the former. The very soft appearance of linearly lanceolate leaf, especially having somewhat obtuse apex and indistinctly papillose leaf-cells, suggests that the present species is identical with *Barbula ehrenbergii*.

Chen (1941, 1963) reported *B. ehrenbergii* from Prov. Szechwan and Yunnan in southwestern China. By the synonymization of *Sinocalliergon satoi* to *Barbula ehrenbergii*, the distributional range of *B. ehrenbergii* is extended to Prov. Shansi in northern China.

3) **Brachythecium populeum** (Hedw.) B.S.G., Bryol. Eur. **6**: 7, f. 535 (1853).

B. yamamotoi Sak., Bot. Mag. Tokyo **50**: 370, f. 11 (1936), syn. nov.

B. populeum (Hedw.) B.S.G. var. *yamamotoi* (Sak.) Tak., Journ. Hattori Bot. Lab. **15**: 68, f. 29 (1955).

Type specimen exam. Japan, Honshu, Kyoto pref., Mt. Hiei, on decayed wood, Apr. 1, 1933, coll. Kanjiro Yamamoto (Sakurai 6059), holotype of

1) Sakurai erroneously used same number "25" for *Brachythecium amnicolum* in his same paper (1949), but real number for *B. amnicolum* is 35.

Brachythecium yamamotoi in MAK (B. 6059).

Sakurai (1936) described *Brachythecium yamamotoi* as a new species, and afterward Takaki (1955) transferred it to a variety of *B. populeum*. It is a slender form of *B. populeum* growing on the poorly nourished bed. Many intermediate forms exist between *B. populeum* var. *populeum* and var. *yamamotoi*. They can not be distinguished as two different taxa.

4) **Brachythecium rivulare** B. S. G. Bryol. Eur. **6**: 17, f. 546 (1853).

Calliergon cordifolium (Hedw.) Kindb. var. *brachyneuron* Sak. in Mizushima, Bot. Mag. Tokyo **63**: 31 (1950), nom. nud.

Specimen exam. Japan, Honshu, Nagano pref., Mt. Yatsugatake, July 23, 1949, Sakurai 16037 and July 24, 1949, Sakurai 16089 in MAK.

I proposed *Calliergon cordifolium* (Hedw.) Kindb. var. *brachyneuron* Sak. at the annual meeting of the Botanical Society of Japan (Apr. 1950) and the name was also recorded in the proceeding of the meeting (Bot. Mag. Tokyo **63**: 31, 1950) without Latin description. Later, Sakurai re-examined and redetermined it as *Calliergon peraecurrens* (synonym of *Hygrohypnum ochraceum* forma *obtusifolium*). On the examination of the specimen I found that *C. cordifolium* var. *brachyneuron* is identical with *Brachythecium rivulare*. The following characters of the present specimen will warrant my determination: 1) the general appearance is similar to that of *Calliergon cordifolium* but the leaves are more deltoid, 2) the laminal cells are wider and shorter than in *Calliergon cordifolium*, and 3) the midrib sometimes reaches to the upper part of leaves, but usually ceasing in the halfway.

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References

Chen, P. C. (1941) Studien über die ostasiatischen Arten der Pottiaceae I & II. Hedwigia **80**: 1-76 & 141-322. —— (1963) Genera Muscorum Sinicorum I. Peking. Iwatsuki, Z. & A. Noguchi (1973) Index muscorum Japonicarum. Journ. Hattori Bot. Lab. **37**: 299-418. Sato, M. (1949) Notes on the cryptogamic flora of Prov. Shansi, North China I. Bryophyta. Bot. Mag. Tokyo **62**: 101-103.

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1）ヒメハタキゴケは蒴柄が「く」の字状に曲がるので，ハタキゴケ属の新種として書かれたが，基準標本に当ってみると，近縁のススキゴケ属の種で日本各地に産するアカススキゴケと何ら変るところがない。ヨーロッパ産の *Aongstroemia longipes* を基準種とするハタキゴケ属やススキゴケ属，オバナゴケ属については，将来，再検討が望まれるが，現在の属および種を容認する限りではヒメハタキゴケはアカススキゴケの異名となる。

2）佐藤正己先生により，中国，山西省，娘子関で採集された直立性の蘚は，標本で見ると外観はヤナギゴケ科のササバゴケ属のものと似ている。ササバゴケ属のものは，本来は匍匐性であるが，やや酸性の湿地で束生して水中から立ち上がる性質を持つ。一方，センボンゴケ科の中にはアルカリ性の湿地に生えるものがあるが，これらはもともと直立性の蘚である。同じ湿地という環境の下で，外観は非常に似ている。娘子関のものは後者に属する *Barbula ehrenbergii* である。胞子体を持たない蘚の分類のむつかしさを示した例と言えよう。基準標本について桜井博士は原記載中に 24, 25-typus! と書いておられ，24および25が syntype と考えられないこともないが，ここでは 25-typus と標示が連なっていると解釈して holotype として扱った。

3）アオギヌゴケは多型で変異の幅が大きく，貧栄養のキンキヒツジゴケは種としては勿論のこと，変種として区別することも困難である。

4）*Calliergon cordifolium* var. *brachyneuron* Sak. は正式に発表されていない植物名であるが，植物学雑誌や岩月・野口（1973）: Index Muscorum Japonicarum にも収録されている。これは明らかにタニゴケと同一であるので，混乱を避けるため本文に記載の通り処理した。

この報文は漢法科学財団の助成によるものであることをしるして感謝の意を表します。

□Hawksworth, D.L., B.C. Sutton & G.C. Ainsworth: **Ainsworth & Bisby's dictionary of the fungi**, 7th ed. 445 pp. 1983. CMI, Kew. ¥6,250. 1943（昭和18）年の初版以来改版を重ね，今回は見出し語総数16,500として出版された。変形菌類・真菌類・地衣類にわたり，属名および目以上の高次分類群名（科は目の中で取扱われている），各種菌学用語や菌類に関係ある広範な事項を見出し語とし，簡潔な情報が与えられている。採用されている分類体系では，第6版に比べて特に子嚢菌類が大幅に改められており，従来の核菌類や盤菌類という枠が取払われて37目が並記され，自然分類に向けての最近の模索が反映されている。菌類に興味をもつ者には便利で不可欠な本である。（三浦宏一郎）