Harumi Ochi*: **Contributions to the mosses of Bryaceae in Japan (7)**

越 智 春 美*: 日本産ハリガネゴケ科蘚類の研究 (7)

31) **Pohlia otaruensis** (Card.) Ochi, comb. nov. (Fig. 1)

Webera otaruensis Card. in Bull. Soc. bot. Genève 2 sér. **1**-3: 124 (1909).

Inflorescence dioecious. Plants 0.5–0.7 cm in height, closely tufted, with slight lustre. Stem erect, simple, dirty brown with radicles in lower parts, yellowish-green in upper parts. Leaves numerous, smaller and remoter in lower parts, larger and more closely arranged in comal part, apressed to stem and sometimes flexuose when dry, erect-spreading or erect when moist; lower leaves narrowly oblong-lanceolate or triangular-lanceolate; upper ones linear-lanceolate, up to 3×0.6 mm, margin plane or narrowly reflexed, with fine serration in upper parts, costa strong, ca. 0.11–0.14 mm broad at base, slightly decurrent, percurrent or nearly so, yellowish-brown or brown. Cells of leaf-blade fairly dense, membrane fairly thick, linear-rhomboidal or linear-hexagonal in median part of leaves, ca. 40–80×8–10 μ in diam., similar in upper parts, slightly narrower in marginal parts, slightly laxer and rectangular in basal parts. Perichaetial leaves narrower and longer, margin more distinctly serrate in upper parts. Male plants sometimes mingled with others, antheridia numerous, in terminal buds on shorter or similar stem. Seta short, 0.7–1 cm long, erect, but often somewhat flexuose or geniculate, yello-

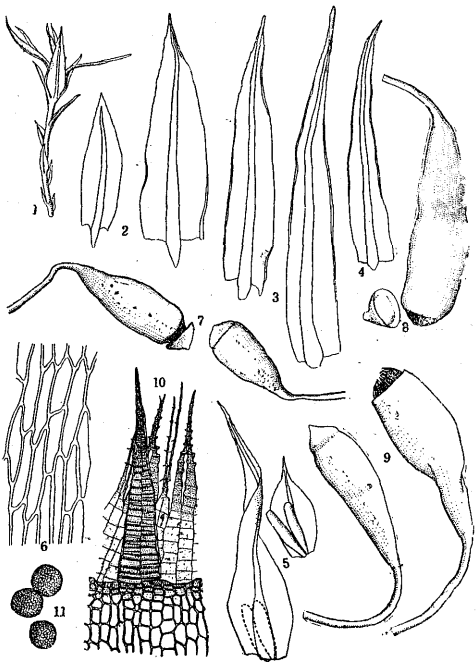

Fig. 1. *Pohlia otaruensis* (Card.) Ochi: 1. Male plant×7, 2—3. Leaves ×14, 4. Perichaetial bract ×14, 5. Perigonial bracts with antheridia ×14, 6. Cells from middle of leaf ×200, 7. Capsules ×6, 8—9. Ditto ×7, 10. Peristome & exothecial cells ×50, 11. Spores ×200. 1 & 8 from no. 2,887, 5, 9 & 10 from no, 3314, 11 from no. 2,892 and remainings from the iso-type.

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wish-brown, with lustre. Capsules nearly erect or horizontal or sometimes nutate, short, ca. 2–2.6×0.8 mm, neck short, constricted under mouth when dry, ovately pyriform or oblong-pyriform in shape, brown. Operculum hemispherical-conical, with minute and indistinct point, ca. 0.3 mm in height. External peristome teeth linear-lanceolate, yellow, narrowly bordered, finely and closely papillose, ca. 0.5 mm long, inner teeth hyaline, basal membrane finely papillose, ca. 1/2 as high as the whole height, segments similar in length with outer teeth, narrowly fenestrate, closely and finely papillose, cilia 3, longly developed, nodulose or shortly appendiculate. Spores nearly spherical, yellowish or yellowish-brown, nearly glabrous or finely papillose, ca. 16–20 μ in diam.

Male plants are described by nos. 2,887 and 3,314, and remainings by the iso-type.

Hab. on soil. Hokkaidô—Prov. Teshio: Isl. Rishiri, Mt. Rishiri, alt. ca. 900–1,150 m (H. O. Nos. 3,314 & 3,337, July 28, 1953)—Prov. Tokachi: near Lake Shikaribetsu, alt. ca. 780 m (M. Saitô, No. 10,050—H. O. No. 2,887, Aug. 26, 1952)—Prov. Ishikari: Mt. Ashibetsu-dake, alt. ca. 1,150 m (M. Saitô, No. 9,632—H. O. No. 2,892, Aug. 19, 1952)—Otaru (Faurie, No. 3,894—iso-type, in Herb. Kyôto Univ., June 12, 1908).

Plants of the iso-type seem to be collected from fairly dry habitat, and bear somewhat juvenile capsules. These which collected from the other habitats are generally larger in both gametophytes and sporophytes: plants up to 1.5 cm in height, upper leaves up to 3.9×0.7 mm, seta ca. 2 cm, capsules 2.5–3.5×1 mm, etc. And in addition, they are more acutely pointed or sometimes slightly rostrate in opercula and more longly appendiculate in cilia of inner peristome. It should be noted that the spores are almost glabrous in the iso-type, while finely and closely papillose in the others. But this difference seems to correspond to maturity of capsules.

The original description is very short and any male plants have not yet described. Therefore, the author describes it here again in detail.

32) **Pohlia seoulensis** (Card.) Horik. et Ochi, in Journ. Jap. Bot. **28**–11: 337, Fig. 2 (1953). (Fig. 2)

Pohlia flavescens (Card.) Horik. et Ochi, in Liberal Arts Journ. (Sci. Report Liberal Arts Dept. Tottori Univ.), Natural Sci. **4**: 13, Pl. 1: figs. 10–15 (1953). — **Syn. nov.**

Seta erect, slender, 1.2–1.8 cm in height, brown with lustre, often flexuose when dry. Capsules rather small, 2.5–3×0.8–1 mm, oblong-pyriform, nearly erect or horizontal or rarely nutate, brown, constricted under mouth when dry, neck fairly long.

Outer peristome teeth yellow, lanceolate, ca. 0.5 mm high and 0.1 mm broad, finely and closely papillose, papillose, not bordered, lamellae fairly high, inner teeth yellowish, basal membrane fairly high, ca. 1/2 of outer teeth, finely papillose, segments slightly shorter than outher teeth, narrowly fenestrate at keel, cilia 2–3, unequally developed, generally shorter than segments, slightly nodulose, tending to be deciduous when mature. Spores yellowish, round, 18–22μ in diam., finely and closely papillose. Operculum hemispherical-conical, indistintly pointed. Male plants mingled with others or making tufts by themselves only, somewhat smaller and softer than others, antheridia in terminal buds.

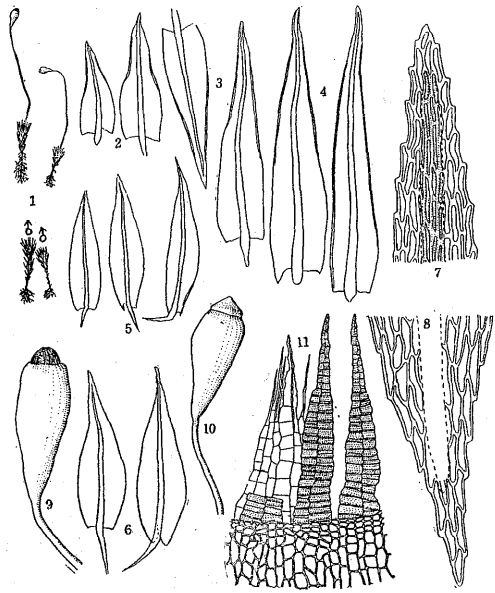

Fig. 2. *Pohlia seoulensis* (Card.) Horik. et Ochi: 1. plants ×1, 2—4. Leaves of fertile plant ×14, 5—6. Ditto of slender sterile plants ×14, 7. Leaf-apex of fertile plant ×125, 8. Ditto of slender sterile plant ×125, 9—10. Capsules ×7, 11. Peristome & exothecial cells ×50.

Hab. on fairly hard soil at slopes. Honshû—Prov. Inaba: Mt. Kyûshô-zan, Tottori City (H. O. No. 4,850, April 16, 1955).

The present species was established by J. Cardot based solely on sterile specimens. The present author[1] also reported the species from Mt. Daisen and Mt. Nagi based on sterile ones. Afterwards however, I became to doubt in treating those specimens as this species, because they have stouter gametophytes, more densely arranged foliage and more storongly nerved leaves than those of the iso-type specimens in the Herbarium of Kyôto University. But, after consultation of the present material in detail, I have inclined to think again that my identification was correct. That is, as we can see from Fig. 2 in this paper, the leaves are so much variable in foliage, shape, hardiness, costa, areolation, etc. even in the material collected from the same habitat.

1) Journ. Jap. Bot. **28**—11: 337 (1953).

Judging from these facts, *P. flavescens* might be an aberrant form of this species, caused perhaps by the different environment, and I propose here to reduce it to a synonym.

The fruiting as well as male plant were for the first time found by the author and the description of them are added here. Judging from the characters of fertile plants and capsules, this species stands probably in intimate relation to *P. revoluta* (Card.) Ochi.

33) **Brachymenium exile** (Doz. et Molk.) Bosch et Lac. Bryol. Jav. **1**: 139 (1860).

Microphilonotis gemmipara Sak. in Journ. Jap. Bot. **27**-9: 279 (1952).—**Syn. nov.**

Honshû—Prov. Iwaki: Nakamura-chô, Sôma-gun (T. Higuchi, No. 730—iso-type of *Microph. gemmipara*—H. O. No. 4,985, Nov. 25, 1951).

34) **Plagiobryum demissum** (Hoppe et Hornsch.) Lindb. in Öfv. Kongl. Vet. Akad. Förh. **19**: 606 (1863) (Fig. 3)

Hab. in rock-crevices. Honshû—Prov. Shinano: the foot of Mt. Senjô-dake, Todai—Makuiwa, alt. ca. 1,100m (Coll. Z. Iwatsuki, in Herb. Hattori Bot. Lab. Nos. M25,370 & M25,387—H. O. Nos. 5,016 & 5,23).

New to Japan.

This species has been considered as one of the circumboreal elements. It seems interesting that the above mentioned station is situated in the **deciduous broad-leaved tree region,** and not in the conifer zone.

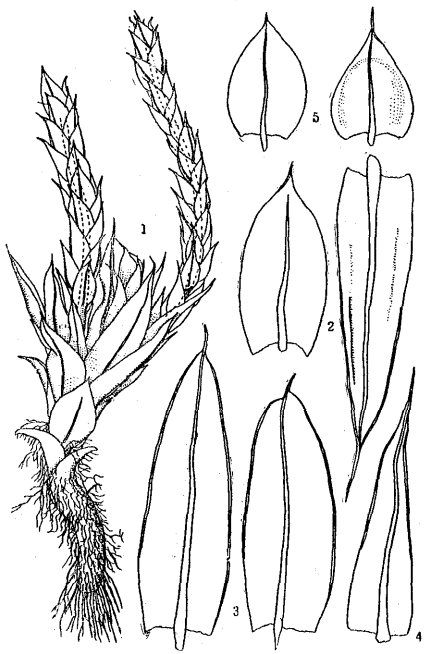

Fig. 3. *Plagiobryum demissum* (Hoppe et Hsch.) Lindb.: 1. Sterile plant ×7, 2—3. Leaves ×14, 4. Perichaetial bract ×14, 5. Leaves of branchlet×14. Drawn from no. 5,016.

35) **Five specimens published by the late V. F. Brotherus.**

The following duplications of the specimens, which were collected from Hokkaidô by the late Prof. K. Miyabe and others and published by the late Prof. Brotherus in Hedwigia **38**: 218 (1899), are now being preserved in the

Herbarium of Hattori Botanical Laboratory:

Bryum inclinatum (Sw.) Bry. eur. No. 58 in Herb. Sapporo Agr. Coll.

B. pallens Sw. No. 123 in ditto.

B. caespiticium L. Nos. 187 & 228 in ditto.

B. pallescens Schleich. No. 191 in ditto.

Through kind assistances of Dr. S. Hattori and Mr. Z. Iwatsuki, I have been able to examine the above specimens in detail, and found that the first of these was erroneously identified: the specimen is not of *B. inclinatum*, but of *B. pendulum*. As we can see from Fig. 4 in the present paper, *B. pendulum* is different from *B. inclinatum*[2] in the followings: leaves more longly acuminate, costa toothed in excurrent tip, areolation denser, opercula smaller and more acutely pointed, outer peristome teeth adherent to inner ones, etc.

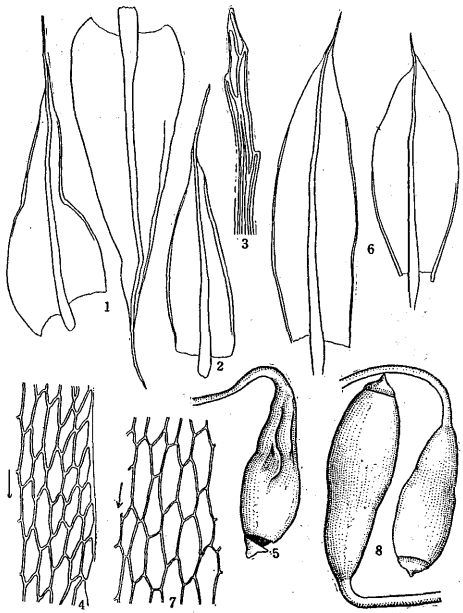

Fig. 4. *Bryum pendulum* (Hsch.) Schimp. (1—5) & *B. inclinatum* (Sw.) Sturm. (6—8): 1 & 6. Leaves ×14, 2. Perichaetial bract ×14, 3. Tip of costa ×125, 4 & 7. Cells from middle of leaves ×125, 5 & 8. Capsules ×7.

Bryum pendulum(Hornsch.) Shimp. Coroll. 70 (1856). (Fig. 4)

Bryum inclinatum (non Sw.) Broth. in Hedw. **38**: 218 (1899). —**Syn. nov.**

As the result of this reduction *B. inclinatum* seems to be excluded from the mossflora of Japan.

31. **オタルミスゴケ** 本種は Faurie が小樽から採集したものに基いて設定されたものであるが，記載が簡単でその図解もされていないので，ここに追記載し図解をも試みる。本種の基準標本はかなり乾燥した所に生えていたものらしく，又6月の採集であるので，植物体は小さく子嚢も稍々若くて基準標本としてあまり良好なものではない。北海道利尻島からの筆者の採品及び同芦別岳・然別湖周辺からの斎藤君の採品は iso-type

2) The author is much obliged to Dr. H. Persson for his kindness in forwarding me the specimens of the species.

に比して植物体も子嚢も大きく，帽は尖り，内蒴歯の間毛の appendage はより顕著で，胞子のパピラも著しい。しかしこの程度の差異は育地や子嚢の成熟度の相異に基くものと思われる。従来♂個体については全く記載がないのでここに附加する。

32. **コマノミスゴケ** 筆者はさきに本種の営養体のみのものを鳥取県大山と那岐山から報告したが，後になつて葉の配列・葉形・肋などにおいて京大所蔵の iso-type とやゝ異る点からその同定にやゝ疑問をいだいていた。しかし今回鳥取市久松山から多量の子嚢をつけた個体及び♂個体を採集し，それらを詳細に検討するにおよんで本種の営養体の変化の著しい（図参照）のに驚くとともにさきの同定の正しいことをも確めることができた。ここに記載を追加するとともに更に図解をも試みる。本種と葉形・葉細胞の異る点から種別して立てられたキヘチマゴケも四国剣山からの営養体のみの標品に基いて立てられたものであるが，それらの相異も程度の問題で特に種別すべき程のものとは考えられないので，ここに同種を本種の異名とすることを提唱したい。

33. **ヒメウリゴケ** 桜井博士の設定されたコモチイトサワゴケの iso-type を福島県信夫高校樋口利雄氏の御好意によつてみることができた。同博士の図解からも明らかな如く，それは本種の無性芽をつけた不稔品に外ならないのでここに訂正する。

34. **ヤマナガクビゴケ**（新称） 筆者[3]がさきにナガクビゴケを報告した際，本種も本邦に産する可能の性あることを予言した。服部植物研究所岩月善之助氏が南アルプス仙丈岳山麓戸台幕岩間の海抜 1100 m の岩隙から採集されたものは不稔品ではあるが本種と思われる。

図解からも明らかな如く，ナガクビゴケとは葉はより狭長で上葉では肋は突出し，植物体はより緑色で密な薜座を形成する点が異る。本種は極地要素とみなされて居り，従つて常緑針葉樹帯若しくは灌木帯に出現することを予想したが，今回の如くブナ帯に出現したことは特筆さるべきことであろう。

35. *Brotherus* の種 Brotherus は Hedwigia **38** (1899) に日本産ハリガネゴケ科のもの 14 種を記載しているが，そのうちの 4 種 5 点の副標本が服部植物研究所に所蔵されている。それは次の通りである

Bryum inclinatum (Sw.) Bry. eur. コハリガネゴケ.....No. 58

B. pallens Sw. エゾハリガネゴケ.....No. 123

B. caespiticium L. ホソハリガネゴケ.....Nos. 187, 228

B. pallescens Schleich. チャボハリガネゴケ.....No. 191

これらのうちあとの4点は正しい同定と思われるが，最初の一点はシダレハリガネゴケを誤つて同定したものである。幸に筆者はスウェーデンの H. Persson 博士からいただいたコハリガネゴケと同標品とを比較検討することができたが，図解からも明らかな如く，葉の先端がより細長で肋の突出部には歯が明瞭であり，より密な葉細胞を有し，

3) 植研 **29**: 266 (1954).

蒴蓋はより小さくて尖り，外蒴歯の基部が内歯と癒着するなどの諸点からコハリガネゴケとの区別はさほど困難ではない。本報告によつてコハリガネゴケは本邦産蘚類フロラから一先ず除外されることになる。

終りにのぞみ文献調査に多大の便宜を与えられた堀川教授・鈴木助教授・安藤講師をはじめ同研究室の方々，貴重な標本を恵与或は貸与された服部研究所・前原・越智・樋口・斎藤の諸氏，標本検討を快諾せられ種々便宜を与えられた京大北村教授・田川助教授をはじめ同研究室の方々に深甚の謝意を表する。　（昭和 30 年 7 月）

○ヒヨドリバナの海岸型　（津山　尚）　Takasi TUYAMA: Littoral variety of *Eupatorium lindleyanum* DC.

1951 年 8 月 23 日佐竹義輔氏，鈴木泰氏などと三宅島の伊豆ガ崎を採集中，雑草の生い茂つた断崖の上で，海岸から至近の場所でサワヒヨドリの一型を採集した。このものは葉が広く丸味を帯び鈍頭で，脈上は勿論，葉面に表裏共に白色，多細胞の長軟毛が密に（或はやや密に）生じていて，基本型が三行脈であるのに比して五行脈状をなしている。新変種と認めて，ハマサワヒヨドリの和名と次の学名を与える。鈴木泰氏は翌 24 日同島の雄山の火口原に発達する低灌木草原（海抜約 700 m）の中にも，これを発見した。雄山の標本では，葉面の毛は多少少いが，五行脈は明かである。

Eupatorium lindleyanum DC. var. **Yasushii** Tuyama var. nov.

A typo differt follis medianis latioribus sed variabilis vulgo ellipticis saepe ovato-ellipticis vel anguste ellipticis vel elliptico-lanceolatis, apice obtusis, subquinquenervatis, cum pilis mollis albis patentissimis ca. 1.0–1.5 mm longis subdense sed in nervos densius obtectis, texturis carnosiusculis, internodiis inferioribus abbreviatis. Planta littoralis.

Nom. jap. Hama-sawahiyodori (K. Hiyama, Jan. 1951).

Hab. Prov. Izu: Ins. Miyake-jima, Izugasaki vel Izumigasaki), in herbidis littoralibus (leg. Yasushi Suzuki, et T. Tuyama, Aug. 23, 1951—Typus in Herb. Mus. Sci. Nation., Tokyo); ibidem, in herbidis in summo montis vulcanis Oyama, ca. 700 m alt. (leg. Y. Suzuki, Aug. 24, 1951).

Note. Mr. K. Hiyama has already reported this variety in Japanese from the littoral zone near the city of Chôshi, Kazusa.

以上を大体纏めた後に檜山庫三氏が「野草」**17**: 139 号に同じハマサワヒヨドリの和名の下に同じ変種を銚子附近の海岸の標本（武井尚氏採集 Jul. 30, 1950）に基いて報告しているのを知つた。また科学博物館の腊葉中に上総犬吠崎（1943 年 7 月 11 日，浅野貞夫氏）の標本で典型的な広葉と多毛を有することによつて本変種に入るものがある。

ヒヨドリバナは根際に近い葉はやや多毛であり，その附近の茎も同様である。本変種ではこの状態が上方の葉に及んでいるものである。　（御茶の水女子大学）