

日本産ツツジ属植物雑報(二十五): 冬芽鱗片の外形

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Masahide KURITA* : Some Notes on the *Rhododendron* Plants from Japan XXV. Exomorphic Characteristics of Winter Bud Scales

栗田正秀* : 日本産ツツジ属植物雑報 (二十五) 冬芽鱗片の外形

A study has been made on the internal aspects of the winter bud scales of four *Rhododendron* species (KURITA, 1982). This paper reports the results of observations on the scales of winter foliar buds, especially the scale hairs, of *Rhododendron semibarbatum* Maxim. Approximately 40 foliar buds were collected in the middle of March, 1987, from plants growing wild at Kusacho, Fuchu-shi, Hiroshima-ken. In the text, the observed scales are numbered in the order that they ascend the bud axis from which they project. The terms concerning the scale shapes are adopted from MAKINO (1975).

Observation

1. The number and the shape of the scales

The winter foliar buds of *R. semibarbatum* are about 8.5 mm long and 2.0 mm wide. The number of scales per bud varies from 14 to 17. The lowermost scale (the first scale) (Fig. 1, A) is deltoid, about 1.7 mm long and 1.3 mm wide at the base. Its tip is acute. Other scales (Fig. 1, B-D) turn gradually oblong as they take the upper positions on the bud axis. All the scales have acute tips. The largest oblong scale is about 4.5 mm long and 1.9 mm wide. Other scales (Fig. 1, E and F) become gradually oblanceolate as their positions become higher on the bud and they all have acute tips. The uppermost scale (the last scale) (Fig. 1, G) becomes broadly linear and are 6 mm long and 1.1 mm wide. They also have acute tips.

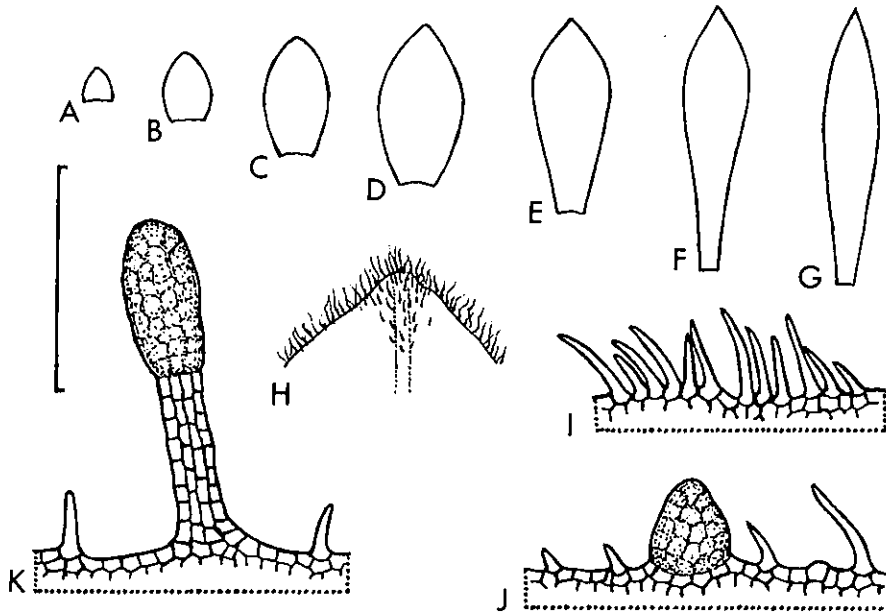


Fig. 1. Bud scales and their hairs of *Rhododendron semibarbatum*.

A-G. Representative scales of single bud. A, The lowermost scale. G, The uppermost scale. B-F, Halfway scales. H, A tip of scale (adaxial surface view). I, Unicellular hairs on upper part of scale margin. J, Unicellular hairs and a sessile glandular hair on lower part of scale margin. K, Unicellular hairs and a normal glandular hair on scale margin.

Scale bar: 6 mm for A-G, 667 μ m for H, 140 μ m for the others.

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2. The scale hairs and their seats

The foliar bud scales have two different types of hairs: unicellular hairs (Fig. 1, I) and multicellular glandular hairs (Fig. 1, K), and show no multicellular common hairs at all. The glandular hairs are characterized by thick stalks which consist of numerous cell-files.

Table 1 presents results of close observations on all the scale hairs of one of the foliar buds. When unicellular hairs are found on scales 1 through 17, they occur on the upper areas of abaxial surfaces, and they appear clearly on the lower areas of abaxial surfaces of scales 13 through 17. On the adaxial surfaces of the scales, the unicellular hairs are plainly found in the upper areas (Fig. 1, H) of all but the first scale and further they are found in the lower areas of the 14th to 17th scales. The unicellular hairs appear on the margins of all the scales.

The multicellular glandular hairs are plainly found in the lower areas of the abaxial surfaces of the 12th to 17th scale.

However, the 12th scale has only a few glandular hairs and therefore their distribution is limited to a small part within the lower area. The number of hairs on the scales increases gradually with increased height along the bud axis. On the uppermost scales, the glandular hairs are often distributed on the entire abaxial surface except for the upper area. All the adaxial surfaces of the scales show no glandular hairs at all. The margins of the 9th to 17th scales show the glandular hairs. On the 9th scale, only one sessile glandular hair is found on the lower part of each of both the scale margins (Fig. 1, J). The number of normal stalked glandular hairs increases gradually with higher scale positions on the bud axis. The glandular hairs are found on the whole margin (Table 1, 16th and 17th scales) except for its

uppermost part (about one fourth of the margin length).

The other foliar buds which were closely observed were generally similar to the above mentioned bud.

The multicellular glandular hairs appear first on the lower part of the scale margin. On the abaxial surface of the scale, they appear first on the lower area of the surface. Table 2 shows the scales which have the hairs on the two sites mentioned above. As shown in the table, 1) certain scales have the glandular hairs on their margins and have no hairs on their abaxial surfaces, and 2) those scales all are situated below the lowermost scale with the glandular hairs on its abaxial surface.

Discussion

The petioles of *Rhododendron semibarbatum* have been observed to have unicellular hairs on their entire surfaces and to have multicellular glandular hairs on the contact lines between the

Table 1. Hair distribution on all the scales of a single bud.

Scale number	Abaxial surface		Adaxial surface		Margin	
	Lower area	Upper area	Lower area	Upper area	Lower part	Upper part
1	—	U	—	—	U	U
2	—	U	—	U	U	U
3	—	—	—	U	U	U
4	—	U	—	U	U	U
5	—	U	—	U	U	U
6	—	U	—	U	U	U
7	—	U	—	U	U	U
8	—	U	—	U	U	U
9	—	—	—	U	GU	U
10	—	—	—	U	GU	U
11	—	U	—	U	GU	U
12	G	—	—	U	GU	U
13	GU	—	—	U	GU	U
14	GU	—	U	U	GU	U
15	GU	U	U	U	GU	U
16	GU	U	U	U	GU	GU
17	GU	U	U	U	GU	GU

U: Unicellular hair. G: Glandular hair. —: No hairs

Table 2. Scales with glandular hairs.

Buds (the number of scales)	Scales	
	with glandular hairs on margins	with glandular hairs on abaxial surfaces
a (14)	6 th — 14 th	11 th — 14 th
b (15)	9 th — 15 th	13 th — 15 th
c (15)	10 th — 15 th	13 th — 15 th
d (17)	9 th — 17 th	12 th — 17 th
e (17)	10 th — 17 th	14 th — 17 th

upper and the lower surfaces of the petioles. In addition, no multicellular common hairs have been found on the petioles (KURITA, 1987). Generally bud scales are known to be derived from the petioles. The bud scales of *R. semi-barbatum* also are considered to be so. Thus, it may be understood that 1) the bud scales of this species have no multicellular common hairs, 2) they have uni-cellular hairs on almost all the surfaces of the scales, 3) the multicellular glandular hairs do not appear on the adaxial surfaces and 4) they appear more often on the scale margin than on the abaxial surfaces (Table, 1 and 2).

As mentioned already, certain scales have the multicellular glandular hairs on their margins and have no glandular hairs on their abaxial surfaces. It may probably be noticeable that those scales are situated below any of the scales which have the glandular hairs on both the margins and the abaxial surfaces.

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摘 要

バイカツツジの葉芽は14-17枚の鱗片をもつ。最下位の鱗片は小さく三角形であるが、芽における位置が上方になるにつれ、鱗片は長さ⁹⁴と幅が増大して長楕円形となり、最上位のものは幅が減少するが長さが増大して広線形となる。

鱗片には単細胞毛と多細胞腺毛があり、多細胞普通毛は認められない。単細胞毛は少しの例外はあるが鱗片の背軸面と向軸面およびすべての鱗片の縁にみられる。多細胞腺毛は背軸面と縁とにあるか、または縁のみであって、向軸面には全く存在しない。縁のみに腺毛をもつ鱗片は、背軸面と縁とにそれをもつ鱗片より、常に芽の下方に位置する。

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○ 野口彰先生の御逝去を悼む (今江正知) Seichi IMAE: Obituary of the Late Dr. Akira NOGUCHI
熊本大学名誉教授で日本蘚苔類学会の中心的存在だった野口彰博士が昭和63年9月24日に逝去された。

日本の蘚苔類研究は世界のトップレベルに達しているが、日本人の手で日本産蘚苔類の研究が盛んに行われるようになったのは戦後(昭和20年以降)のことである。その中心となった組織は広島大学理学部植物学教室と宮崎県日南市にある服部植物研究所である。先生は「服部植物研究所報告」と「蘚苔地衣雑報」の発刊の当初から編集者の一人として出版を支えるなど、現在日本の蘚苔類学の中核となっている研究者の大部分が直接間接に野口先生の教えを受けた人と言えるほど、研究発展の原動力として大きな貢献をしてこられた。

先生は宮崎県都城市の出身で、昭和9年に広島文理科大学を卒業、13年に大分県師範学校に赴任され、24年に同校の大分大学移管に伴い同大学教授となられ、精力的に蘚類の研究を進めながら大分県の植物調査や生物教育の振興にも大いに尽力された。昭和30年に熊本大学理学部に移られてからは教養部長や理学部長など学内の要職を歴任された。そのため、各方面から「野口先生のような方に学内の雑用係を押し付けるとは何事か。先生には、先生でなくては出来ない蘚類の研究を進めて頂けるよう努力しろ」とお叱りを受けることも多かった。しかし、温厚で高潔なお人柄や部内の取りまとめに関する信望と、大学院修士課程の設置や学部の拡充改組などの実績から、理学部長に4選されることになってしまった。

昭和48年に熊本大学を停年退官されてからは理学部植物標本室の一隅に机を置いて、日本の蘚類研究の集大成に向けて努力を重ねられた。その第1段階が、昭和51年に「日本産蘚類概説」(北陸館)として完成し、これは蘚類研究の入門書として重宝されている。畢生の大事業であった Illustrated Moss Flora of Japan は、これまで日本全土で記録された約900種の蘚類の記載と図からなり、その第1部が昭和62年6月に服部植物研究所から刊行された。第2部の印刷開始は、亡くなられる前々日に枕頭で報告された。その時、先生は言葉が出ない状況だったが、しきりにうなづいて喜んでおられたという。

先生は高等植物にも造詣が深く、地元の熊本記念植物採集会をはじめ大分や宮崎の植物を研究する会の育成にも心を配られた。

先生のご指導を受けた多くの方々と共に、先生のあの温和な笑顔とお声を胸に抱いていきたい。