Hideaki OHBA*: **Nomenclatural changes and notes on Japanese Sedoideae****

大場秀章*: 日本産マンネングサ亜科数種の学名変更

In the course of my taxonomic study on Japanese Sedoideae, several new combinations become necessary to publish. Further notes and descriptions of each taxa will be given in Part 4 or 5 of my "Revision of the Asiatic species of Sedoideae (Crassulaceae)".

(1) On *Sedum Alfredii* Hance var. *nagasakianum* Hara

Sedum Alfredii Hance var. *nagasakianum* Hara is now known from western and southern Kyushu, and has spurless, basally connate sepals and linear-lanceolate petals being usually 6—7 mm long (Fig. 1). By these characters, this variety appears to be greatly different from *S. Alfredii* (var. *Alfredii*, Fig. 1 & 2) which has spurred, free sepals and very narrowly lanceolate petals of 4—5 mm in length. These differences, especially on sepal, are so significant that both varieties are considered to belong under different species. Var. *nagasakianum* is considered to be related to *S. Makinoi* Maxim. known from Japan in floral characters. But *S. Makinoi* is well distinguishable from this by the opposite, narrowly or normally spathulate leaves and the subulate or subulate-lanceolate, 4—5 mm long petals. *S. formosanum* N. E. Brown differs from var. *nagasakianum* in having free, spurred sepals and anthers being deep yellow (not orange red) just before dehiscence. Thus, var. *nagasakianum* is better to treat as a distinct species as follows.

Sedum nagasakianum (Hara) H. Ohba, stat. nov.

Sedum Alfredii Hance var. *nagasakianum* Hara in Journ. Jap. Bot. **21**: 143 (1947).

Distr. Kyushu (Fukuoka, Nagasaki, Kagoshima Pref.).

(2) On *Sedum japonicum* Sieb. ex Miq. and its allied species

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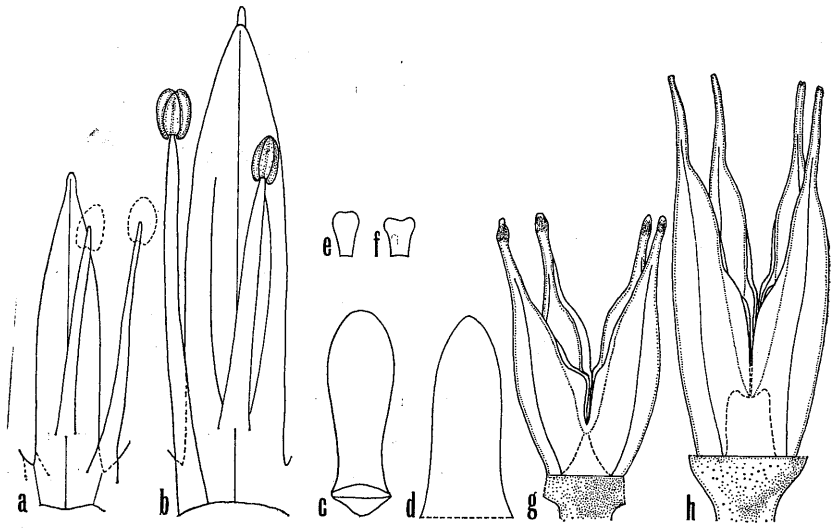

Fig. 1. Floral parts of *Sedum Alfredii* (a, c, e, g) and *S. nagasakianum* (b, d, f, h). a & b: petal with stamens. c: sepal. d: calyx-lobe. e & f: nectar-scale. g & h: ovaries. All×10.

In Eastern Asia there are several species closely related to European *Sedum acre* L. They are *S. uniflorum* Hook. et Arnott, *S. japonicum* Sieb. ex Miq., *S. oryzifolium* Makino, *S. senanense* Makino, *S. Sasakii* Hayata, and *S. boninense* Yamamoto ex Tuyama; among them *S. japonicum* is representative because of the widest range of distribution and its début on taxonomy. They are characterized by 1) slightly compressed cylindrical leaves being 4—18×0.8—3 mm in size; 2) free, slightly spurred, thick, green sepals; 3) yellow, almost free, spreading petals with acute apex; 4) stamens shorter than the petal; 5) ventrally gibbous ovaries connate nearly a third to a half from the base; and 6) widely spreading carpels in fruiting. In the most present floras of this region the allies of *S. japonicum* are separated into 4 or 5 distinct species. Uhl and Moran (1972) reported the differences in chromosome numbers of *S. japonicum* (n=19 from 4 localities), *S. oryzifolium* (n=10 from 16 localities, 2n=3x=30 from 1 locality) and *S. senanense* (n=9 from 1 locality). These differences are, however, not supported from gross morphology. Any characters by which the allies of *S. japonicum* can be specifically distinguished from each other are difficult to find. Thus, these allies are regarded as infraspecific variations of

Fig. 2. Holotype specimen of *Sedum Alfredii* Hance (Hance 15605, K)

one species, which nomenclatorially should be called *Sedum uniflorum*. These infraspecific variations can be distinguished by the combinations of several characters as shown in the following key:

1. Flowers solitary on each flowering branch. Leaves usually about 5 mm long ..... *Sedum uniflorum* subsp. *uniflorum*
1. Flowers in a terminal three-parted cyme 2
2. Subterranean bulbs absent 3
3. Leaves linear, arranged throughout the flowering and sterile branches, rather interrupted (subsp. *japonicum*) 4
4. Flowering branches with decumbent base, up to 15 cm long. Leaves 5—18 mm long, 2—3 mm wide ..... var. *japonicum*
4. Flowering branches usually erect from the base, 3—6 cm long. Leaves 5—12 mm long, 0.8—2 mm wide ..... var. *senanense*
3. Leaves linear-elliptic—linear-obovate, 4—7 mm long, densely arranged towards the apical part of both flowering and sterile branches. Flowering branches erect from the base or with short decumbent base ..... subsp. *oryzifolium*
2. Subterranean bulbs present. Leaves linear-elliptic—linearobovate, 4—8 mm long. Flowering branches erect from the base ..... subsp. *boninense*

Sedum uniflorum Hook. et Arnott, Bot. Capt. Beech. Voy. 263 (1838).

Subsp. **uniflorum.**

Sedum Sasakii Hayata, Icon. Pl. Formos. 3: 111 (1913)

Distr.: Formosa, Ryukyu, and S. Kyushu (Kagoshima Pref.).

Subsp. **boninense** (Yamamoto ex Tuyama) H. Ohba, stat. nov.—*Sedum boninense* Yamamoto ex Tuyama in Bot. Mag. Tokyo **50**: 428, fig. 36 (1936).

Distr.: Bonin Isls.

Subsp. **japonicum** (Sieb. ex Miq.) H. Ohba, stat. nov.—*Sedum japonicum* Sieb. ex Miq., Ann. Mus. Bot. Lugd.-Batav. 2: 156 (1866).

Distr. (var. *japonicum*). China and Japan (Kyushu, Shikoku, Honshu).

Var. **senanense** (Makino) H. Ohba, comb. nov.—*Sedum senanese* Makino in Bot. Mag. Tokyo **16**: 213 (1902)—*S. japonicum* Sieb. ex Miq. var. *senanense* (Makino) Makino in Bot. Mag. Tokyo **19**: 67 (1905).

Distr. Honshu.

Subsp. **oryzifolium** (Makino) H. Ohba, stat. nov.—*Sedum oryzifolium* Makino in Bot. Mag. Tokyo **11**: 428 (1897).

Distr.: Korea and Japan (Kyushu, Shikoku, the Pacific side of Honshu).

(3) On *Orostachys polycephalus* (Makino) Hara

This species is regarded as only a representative bearing caespitose offshoots of *Orostachys japonicus* (Maxim.) Berger. Thus, it should be regarded as the forma of the latter.

Orostachys japonicus (Maxim.) Berger f. **polycephalus** (Makino) H. Ohba, stat. nov.—*Cotyledon polycephala* Makino in Iinuma, Somoku Dzusetu, ed. Makino, **2**: 658, t. 513 (1910)—*Sedum polycephalum* (Makino) Makino, Journ. Jap. Bot. **4**: 8 (1927)—*Orostachys polycephalus* (Makino) Hara in Bot. Mag. Tokyo **49**: 73 (1935)—*O. erubescens* (Maxim.) Ohwi var. *polycephalus* (Makino) Ohwi [Fl. Jap. 586 (March 1953), comb. nud.] in Bull. Nat. Sci. Mus. Tokyo no. 33, 73 (July 1953)—*S. erubescens* (Maxim.) Ohwi var.*polycephalum* (Makino) Ohwi, Fl. Jap. revised ed. 1440 (1965).

Cultivated in Japan.

(4) *Orostachys Iwarenge* (Makino) Hara var. *Boehmeri* (Makino) H. Ohba

There are two species of *Orostachys* knwon to occur in Hokkaido. One of these is *O. malacophyllus* (Pall.) Fisch. and the other is regarded as a variety of *O. Iwarenge* (Makino) Hara. This variety is distinguished from *O. malacophyllus*[1] by the glaucous leaves with obtuse or round apex, the anthers being usually orange red before dehiscence, and the strongly aggregate habit. *O. Boehmeri* (Makino) Hara and *O. Furusei* Ohwi are apparently reduced in this variety. *O. aggregeatus* (Makino) Hara is considered to be conspecific with *O. malacophyllus*. But, Yuasa (1969) adopted *O. aggregeatus* as the correct name of the plants included in this variety. He considered that species to have glaucous leaves. Although Makino (1910) recognized three forms in *O. aggregeatus* of which two are 'glaucous' and 'subglaucous', the typical form of the species should be regarded as the 'viridis' form. In his first description on *O. aggregeatus*, Makino (1901) wrote: "Leaves...oblong to narrowly oblong-spathulate,...green, not caesious or not glaucous." The presence of such glaucous forms was recognized by Makino as the result of his field observation at Hachinoe in Aomori Pref. (Makino 1902), where this variety of *O. Iwarenge*

[1] *Orostachys malacophyllus* (Pall.) Fisch. f. **roseus** (Sugaya) H. Ohba, comb. nov. —*O. aggregeatus* (Makino) Hara f. *roseus* Sugaya in Ecol. Rev. **14**: 178 (1956).

has not been found. These glaucous forms seem to be the extremes of *O. malacophyllus*. Nomenclatorially, therefore, this variety will be named as var. *Boehmeri* (Makino) H. Ohba (comb. nov.). Var. *Boehmeri* differs from var. *Iwarenge* in having aggregate flowering stems or rosettes, orange red (not cream yellow) anthers before dehiscence, smaller leaves usually with round apex, and smaller rosette less than 8 cm in diameter.

Orostachys Iwarenge (Makino) Hara var. **Boehmeri** (Makino) H. Ohba, comb. nov.—*Cotyledon malacophylla* Pall. var. *Boehmeri* Makino in Bot. Mag. Tokyo **16**: 214 (1902)—*Sedum Boehmeri* (Makino) Makino, Journ. Jap. Bot. **4**: 8 (1927)—*Orostachys Boehmeri* (Makino) Hara in Bot. Mag. Tokyo **49**: 73 (1935)—*O. aggregeatus* (Makino) Hara var. *Boehmeri* (Makino) Ohwi [Fl. Jap. 586 (March 1953), comb. nud.] in Bull. Nat. Sci. Mus. Tokyo no. 33, 73 (July 1953)—*S. Iwarenge* (Makino) Makino var. *Boehmeri* (Makino) Ohwi, Fl. Jap. revised ed. 1440 (1965).

Orostachys Furusei Ohwi in Bull. Nat. Sci. Mus. Tokyo no. 35, 6 (1954)—*Sedum Iwarenge* (Makino) Makino var. *Furusei* (Ohwi) Ohwi, Fl. Jap. revised ed. 1440 (1965), syn. nov.

Distr. Hokkaido.

(5) On *Hylotelephium ettyuense* (Tomida) H. Ohba

The main characters by which *Hylotelephium ettyuense* (Tomida) H. Ohba is distinguished from *H. Sieboldii* (Sweet ex Hook.) H. Ohba are the broadly to normally ovate leaves with round apex and the presence of axillary inflorescences. The latter is not so stable to recognize as a specific character. The leaf shape of the species in *Hylotelephium* is usually stable and has been often considered to contribute to specific delimitation. However, having observed many native or cultivated plants of *Hylotelephium*, I awared of my own overestimation to such a character of the species concerned. At present I consider that *H. ettyuense* is better to treat as a local variety of *H. Sieboldii*.

Hylotelephium Sieboldii (Sweet ex Hook.) H. Ohba var. **ettyuense** (Tomida) H. Ohba, stat. nov.—*Sedum ettyuense* Tomida in Journ. Jap. Bot. **48**: 140 (1973)—*Hylotelephium ettyuense* (Tomida) H. Ohba in Bot. Mag. Tokyo **90**: 50 (1977).

Distr. Honshu (Hokuriku District).

I am most grateful to Prof. H. Ohashi of the Tohoku University, for the use of a photograph reproduced in Fig. 2.

Literature cited

Makino, T. 1901. Bot. Mag. Tokyo **15**: 143-144. ——. 1902. Ibid. **16**: 214. ——. 1910. Ibid. **24**: 72-73. Uhl, C. H. & R. Moran. 1972. Cytologia **37**: 59-81. Yuasa, K. 1969. Japanese Encycl. of Horticulture (Publ. by Seibundo Shinkosha, Tokyo) **4**: 2004-2008.

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アジア産マンネングサ亜科の分類誌を東京大学理学部紀要第3類（植物学）に発表中（第1部は 12: 337-405, 1980）であるが，それに先立ち日本産の種類を1981年出版予定の佐竹義輔，大井次三郎，北村四郎監修「日本の野生植物」で解説した。その際，未発表の学名を若干採用せねばならなくなった。そこで本稿では新学名発表に必要な措置と主な論拠を記し，詳細は上記分類誌や同書に委ねることとする。

1. ナガサキマンネングサは *Sedum Alfredii* Hance（シナマンネングサ）から別種として区別した。シナマンネングサは萼片が離生し距をもつが，ナガサキマンネングサは基部で合生し萼筒をつくり距がない萼をもつことが両者の最も大きな違いである。

2. *Sedum acre* L. の東アジアの対応種と考えられるコゴメマンネングサ，メノマンネングサ，ムニンタイトゴメ，タイトゴメなどを唯1種（命名上コゴメマンネングサを基準種とする）の種内変異と考え，メノマンネングサ，ムニンタイトゴメ，タイトゴメを亜種，ミヤママンネングサをメノマンネングサの変種として扱う意見を述べた。

3. ヤツガシラをツメレンゲの品種とした。

4. 北海島に特産するコモチレンゲ（レブンイワレンゲはその異名）はイワレンゲと同種で，その変種と見做すのがよいと思う。*Orostachys aggregeatus* (Makino) Hara コイワレンゲはこの変種とは関係なく，東アジアに広く分布する *O. malacophyllus* (Pall.) Fisch. の変異の中に含まれる。

5. エッチュウミセバヤをミセバヤの変種とした。

□堀田満：**植物の生活誌** 249. pp. 1980. 平凡社. ¥1,200.「月刊百科」（平凡社）に，植物のくらしとして，1977年1月号から1979年3月号まで連載されたものを主体として編集されたもの。24名の執筆者である。各自勝手に書いているが，それぞれのくせがでていて面白い。この種の著作は，従来は比較的目新らしい事実を挙げることが，おおよその仕来たりだったが，これでは分類形態よりも，生態の方に重点がおかれたし，それがまた存外注目をひいたのではないかと思われる。アカマツ，タンポポ，イネといった，ありふれたものの新らしい面が注目をひく。（前川文夫）