

千島列島色丹島で見つかったチシマセンブリの新品種

メタデータ	言語: eng 出版者: 公開日: 2019-03-07 キーワード (Ja): キーワード (En): 作成者: メールアドレス: 所属:
URL	https://doi.org/10.24517/00053560

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 International License.



Hiroyuki Sato¹ and Hideki Takahashi²: A new form of *Swertia tetrapetala* (Gentianaceae) found in Shikotan, Kuril Islands

¹Graduate School of Agriculture, Hokkaido University, N9 W9, Kita-ku, Sapporo, Hokkaido 060-8589, Japan;

²The Hokkaido University Museum, N10 W8, Kita-ku, Sapporo, Hokkaido 060-0810, Japan

Swertia tetrapetala Pall. (Gentianaceae) is an annual or biennial 10-30 cm tall herbaceous plant occurring in subalpine and coastal areas of central and northern Honshu, Hokkaido, the Kurils, Okhotsk and Kamchatka (Toyokuni and Yamazaki 1993; Charkevicz 1995). It is very common especially in the Kuril Islands (Barkalov 2009). A white-flowered form of this species has been named *S. tetrapetala* subsp. *micrantha* (Takeda) Kitam. f. *leucantha* (Hid.Takah.) T.Shimizu and *S. tetrapetala* subsp. *tetrapetala*

f. *albiflora* Tatew., but no other forms with unusual flower colors have been recorded for this species.

We found one individual of *Swertia tetrapetala* having flowers without dark purple spots on the corolla lobes at the southern foot of Mt. Shakotan of Shikotan, the Kuril Islands. We here describe a new form of *Swertia tetrapetala* Pall. (Fig. 1A), this form is clearly different from the typical one (Fig. 1B).

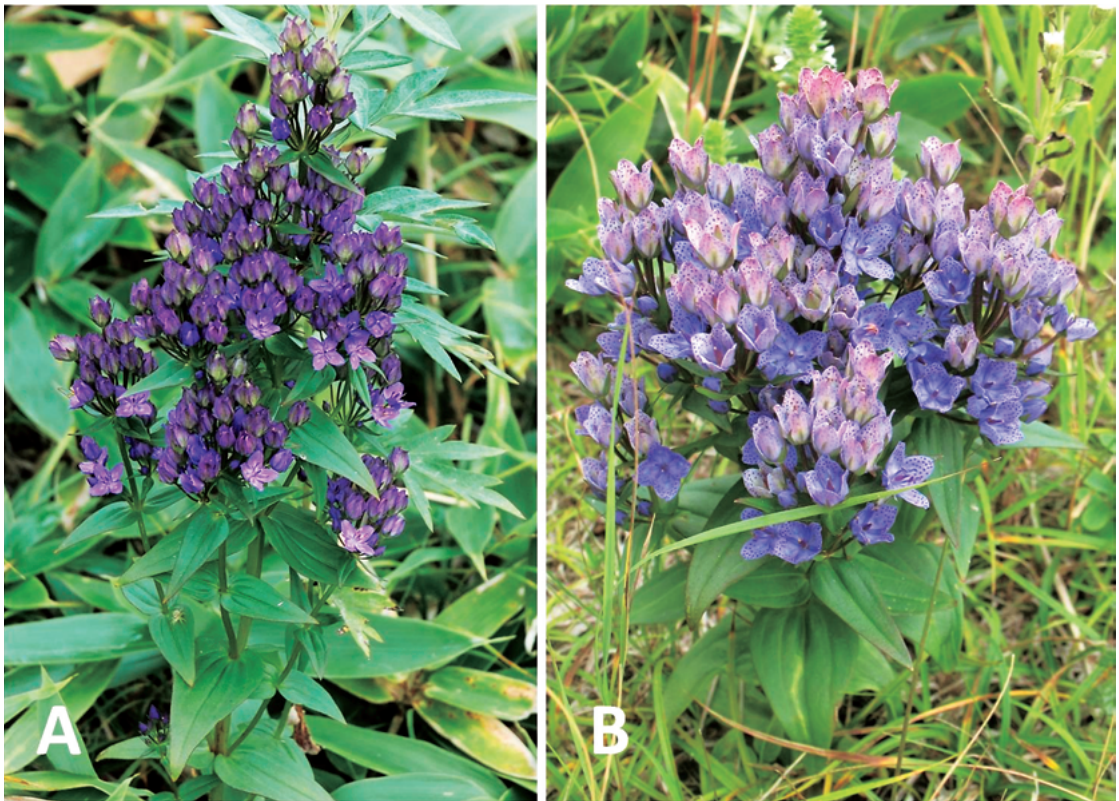


Fig. 1. (A) *Swertia tetrapetala* f. *impunctata* in the Island of Shikotan (type locality), August 23, 2010. (B) The type form of *Swertia tetrapetala* in the Island of Shikotan, August 23, 2010.

Swertia tetrapetala Pall. subsp. *tetrapetala* f. *impunctata* Hiroyuki Sato et Hideki Takahashi, f. nov. (Fig. 1A)

This form is distinguished from the typical form by the flowers without dark purple spots on the inside of the corolla lobes.

Japanese name: Hoshinashi-chishima-senburi, nov.

Holotype: The Kuril Islands, Shikotan, Mt. Shakotan[Shikotan]-yama. (H. Sato and H. Takahashi Hiro-01455, August 23, 2010, SAPS 041816).

Note: One individual of this form was found among the typical individuals of *Swertia tetrapetala* at the foot of Mt. Shakotan. Since we encounter similar ‘impunctata’-flowered specimens among many herbarium specimens of this species in SAPS collected from Hokkaido and the Kuril Islands, possibly this form sporadically occurs in Hokkaido and the Kuril Islands. But these specimens were not listed as f. *impunctata* in the present study, because of the incomplete reliance on the endurance of these spots under the storage condition in the herbarium. As the same ‘impunctata’-flowered form has been found in some *Swertia* species; e.g., *S. bimaculata* f. *impunctata* (Makino) Satake (Makino 1910; Satake 1947) and *S. tashiroi* f. *immaculata* Sakata (Sakata 1958), this genetic mutation should occur sporadically in the *Swertia* flowers.

Including the present new form, infraspecific taxa of *S. tetrapetala* hitherto known are listed as follows:

Swertia tetrapetala Pall., Fl. Ross. 1(2): 99, f. 2 (1789); *Ophelia tetrapetala* (Pall.) Grossh., Fl. SSSR 18: 627 (1952).

1. subsp. *micrantha* (Takeda) Kitam. in Acta Phytotax. Geobot. 17: 12 (1957); *S. micrantha* Takeda in Bot. & Zool. (Tokyo) 4: 181, f. 85 A & B (1936). [Takane-senburi]
- 1-1. var. *chrysantha* (Honda et Tatew.) Sugim., Keys Herb. Pl. Jap. 1: 430 & 737 (1965), comb. nud. Basion., Rev. & Enl. Keys Herb. Pl. Jap. I: 430 (1978); *S. chrysantha* Honda et Tatew. in Trans. Sapporo Nat. Hist. Soc. 14: 192 (1936). “*crysantha*”. [Takane-senburi, Yakeishi-senburi]

1-1-1. f. *leucantha* (Hid. Takah.) T. Shimizu, New Alp. Fl. Jap. Col. I: 311 (1982); *S. micrantha* Takeda f. *leucantha* Hid. Takah. in Bull. Kanagawa Pref. Mus. 1: 4 (1972). [Shirobana-takane-senburi]

1-2. var. *happoensis* Hid. Takah. ex T. Shimizu, Fl. Nagano Pref.: 1509 (1997), in J. Phytogeogr. & Taxon. 46: 115 (1998). [Happō-takane-senburi]

2. subsp. *tetrapetala* [Chishima-senburi]

2-1. var. *tetrapetala* [Chishima-senburi]

2-1-1. f. *albiflora* Tatew. in J. Fac. Agr. Hokkaido Univ. 29: 234 (1933). [Shirobana-chishima-senburi]

2-1-2. f. *impunctata* Hiroyuki Sato et Hideki Takahashi in the present study [Hoshinashi-chishima-senburi]

2-1-2. f. *variegata* Tatew. in J. Fac. Agr. Hokkaido Univ. 29: 234 (1932). [Fuiri-chishima-senburi]

2-2. var. *yezoalpina* (H. Hara) H. Hara in Bot. Mag. Tokyo 51: 19 (1937) pro syn.; *S. yezoalpina* H. Hara in Bot. Mag. Tokyo 51: 19 (1937). [Ezo-takane-senburi]

Acknowledgement

We thank Kunashiri Nature Reserve Center for arranging our field survey on the Island of Shikotan in 2010. This study is partly supported by a Grants-in-Aid No. 21405009 from the Japan Society for the Promotion of Science to H. Takahashi.

References

- Barkalov, V.Y. 2009. Flora of the Kuril Islands. 466 pp. Dalnauka, Vladivostok.
- Charkevicz, S.S. 1995. Gentianaceae Dumort. In: Charkevicz, S.S., Czerepanov, S.K., Kozhevnikov, A.E., Probatova, N.S. and Tzvelev, N.N. (eds.), Plantae Vasculares Orientis Extremi Sovietici 7. pp. 253-278. Nauka, Saint Petersburg.
- Makino, T. 1910. Observations on the flora of Japan. Bot. Mag. Tokyo 24: 13-22.
- Sakata, T. 1958. Notes on some plants of Japan and Korea. J. Jpn. Bot. 33: 28-32.
- Satake, Y. 1947. Species Swertiae Nipponenses

(continuatio). J. Jpn. Bot. 21: 22-30.

Toyokuni, H. and Yamazaki, T. 1993, *Swertia* L.
In: Iwatsuki, K., Yamazaki, T., Boufford, D.E.
and Ohba, H. (eds.), Flora of Japan IIIa. pp.
140-145. Kodansha, Tokyo.

**佐藤広行・高橋英樹：千島列島色丹島で見つかった
チシマセンブリの新品種**

チシマセンブリの花冠は淡青紫色（まれに白色）
で4枚の裂片内面中央基部には蜜腺溝が1個あり、
その周囲には濃紫色の斑点を散生する。花冠裂片全

体の色は通常と変わらないにも関わらず、斑点のみ
を欠落する個体を色丹島で新たに確認したので、新
品種ホシナシチシマセンブリ *Swertia tetrapetala*
Pall. forma *impunctata* Hiroyuku Sato et Hideki
Takahashi として記載した。またこれまで知られて
いるチシマセンブリの種内分類群を整理した。

(¹〒060-8589 北海道札幌市北区北9条西9丁目
北海道大学大学院農学院；²〒060-0810 北海道札
幌市北区北10条西8丁目 北海道大学総合博物館)
(Received May 29, 2013; accepted September 16,
2013)