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**Type Specimens in the Herbarium
of the Taiwan Forestry Research Institute. VII.**



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Type Specimens in the Herbarium of the Taiwan Forestry Research Institute. VII.

Jer-Haur Li,^{1,3)} Chien-Wen Chen,¹⁾ Kuoh-Cheng Yang,²⁾
Wen-Liang Chiou,¹⁾ Shih-Wen Chung^{1,4)}

Summary

A portion of the type specimens preserved in the herbarium (TAIF) of the Taiwan Forestry Research Institute was reviewed and scanned. Those type specimens included 97 species and 7 varieties belonging to 15 families, 60 genera of dicotyledons. The family arrangement of the taxa follows the system of Engler and Diels. Infra-family taxa are arranged alphabetically by genera and species. An explanation for each specimen is provided in the figure caption. Discrepancies between specimen labels and original descriptions are noted when appropriated.

Key words: dicotyledon, TAIF, Taiwan, type specimen.

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Short running title: Li et al. – Type specimens of TAIF



台灣林業試驗所 標本館之模式標本 VII

李哲豪^{1,3)}、陳建文¹⁾、楊國禎²⁾、邱文良¹⁾、鐘詩文^{1,4)}

摘要

本文整理並掃描台灣林業試驗所標本館(TAIF)典藏之模式標本。全文包括雙子葉植物15科60屬97種及7變種。排列先依恩格勒系統的科序排列，科內之屬及種則以英文字母次序排列。各標本之描述置於圖說，標本上標籤之描述與原發表文獻有所出入之處，則註記於圖說之下。

關鍵詞：雙子葉植物，台灣林業試驗所標本館，台灣，模式標本。

李哲豪、陳建文、楊國禎、邱文良、鐘詩文。2009。台灣林業試驗所標本館之模式標本 VII



INTRODUCTION

The herbarium of the Taiwan Forestry Research Institute (TAIF), established in 1904, is the oldest herbarium in Taiwan. More than 1,300 type specimens are preserved at TAIF. Most of them were cited for the new species described by Hayata (e.g., 1911-1921). The status of these specimens was reviewed by Sasaki (1930), Y. Tsiang (annotation marked on the specimen sheets), Cheng et al. (1980), Cheng et al. (1982), Chiou et al. (2000), and Li et al. (2004, 2005, 2006, 2007, 2008). In this study, we reexamined these specimens and scanned them. The majority of these type collections were made by Japanese taxonomists, such as B. Hayata, T. Ito, T. Kawakami, S. Sasaki, and U. Mori. These specimens have been preserved since the early period of 20th century.

The determination of what nomenclatural types the specimens belong to is not easy, because both the protologue and the labels of specimens are often very vague. Also, discrepancies appear between the original citations and the record on the specimen labels. For example, information provided in the protologue may be missing from the specimen labels, one or more of the collector's names on the labels may be missing from the original citation, complete collection date information may be found on either the label or the citation only, and so on. In addition, in most cases, Hayata (and other Japanese who published new species accounts) did not designate type specimen(s) in the protologue. All these factors make it difficult to judge the specimen types. Even in the case of a specimen with a collection number which agrees with the protologue, sometimes we are not sure if there are any duplicates in other herbaria. Thus, herein we mostly follow Sasaki (1930), then-curator of the TAIF, who worked with other Japanese taxonomists when they made collections in Taiwan, while denoting discrepancies (if any) between the protologue and the labels under the figure captions. In most cases, when we were unable to tell what type a specimen was, we used "type" only to label these specimens.

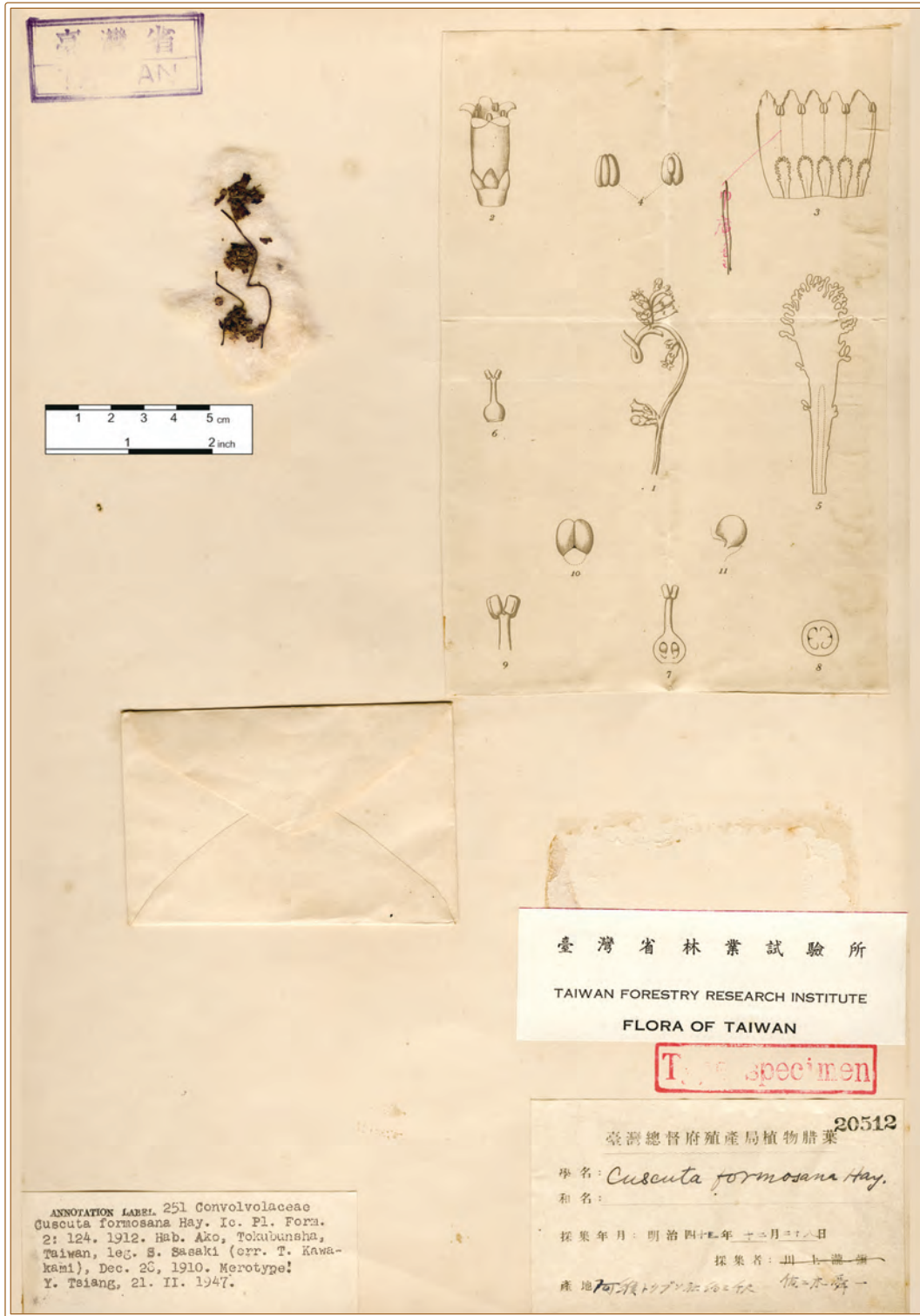
Locality names are another big challenge because one locality may have several different spellings while Taiwan was ruled Japan as sometimes even encountered today. For such localities, we referred to Chu and Yamanaka (1973, 1975), Kyoda (1989), and Huang et al. (1993). Locality names given in the notes follow the spellings used in the protologue.

The caption of each figure includes the original name, original publication and date, and the kind of type it is; its locality, collector(s), collection numbers, date shown on the label, access number of TAIF; and a note of any discrepancies between the label and the protologue.

Type specimens are the most important basis for taxonomic studies, and thus it is necessary to permanently preserve them in a secure environment. Specimen loans between herbaria are common and essential for taxonomic review. Damage to these specimens, however, is often



unavoidable during shipment and examination. In addition, many researchers are located a long way from the herbarium and thus are unable to examine those specimens with ease. In order to reduce the unnecessary damage to these specimens and to make access more convenient for researchers, we have endeavored to scan the type specimens stored at TAIF and to publish those images. This is the 7th part in the series, involving 15 families, 60 genera, 97 species, and 7 varieties of dicotyledon. The family arrangement follows the system of Engler and Diels (1936). Infra-family taxa are arranged alphabetically by genera and species. When a taxon has more than one sheet of specimens, they are arranged sequentially by the accession number of TAIF.



ANNOTATION LABEL 251 Convolvulaceae
Cuscuta formosana Hay. Ic. Pl. Formos.
 2: 124. 1912. Hab. Ako, Tokubunsha,
 Taiwan, leg. S. Sasaki (err. T. Kawakami),
 Dec. 28, 1910. Merotype:
 Y. Tsiang, 21. II. 1947.

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Type specimen

20512
 臺灣總督府殖產局植物腊葉
 學名: *Cuscuta formosana* Hay.
 和名:
 採集年月: 明治四十四年十二月二十八日
 採集者: 山上瀧彌
 產地: 河濱村(今花蓮縣) 板橋

Cuscuta formosana Hayata, Icon. Pl. Formos. 2:124. 1912. Type (part).¹⁾ Taiwan, Ako, Tokubunsha, ad 3,000 ped. alt.²⁾ S. Sasaki s. n., 28 Dec 1910³⁾ (TAIF 20512).

¹⁾ Sasaki (1930a) listed it as a type.
²⁾ Ako, Tokubunsha;
³⁾ Leg. T. Kawakami, Dec 1910 (Hayata 1912).



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20513
臺灣總督府殖產局植物標本
學名 *Cuscuta formosana* Hay.
和名：
採集年月：明治四十二年十二月二十日
採集者：川上瀧彌
產地：新竹トクブンニ " 佐々木舜一

ANNOTATION LABEL 251 Convolvulaceae
Cuscuta formosana Hay. Ic. Pl. Formos.
2: 124. 1912. Hab. Ako, Tokubunsha,
Taiwan, leg. S. Sasaki (err. T. Kawakami) s. n., Dec. 30, 1910.
Isotype: Y. Tsiang, 21. 11. 1947.

Cuscuta formosana Hayata, Icon. Pl. Formos. 2:124. 1912. Type.¹⁾ Taiwan, Ako, Tokubunsha. S. Sasaki s. n., 30 Dec 1910²⁾ (TAIF 20513).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. T. Kawakami, Dec 1910 (Hayata 1912).



Erycibe acutifolia Hayata, Icon. Pl. Formos. 9:76. 1920. Type.¹⁾ Taiwan, Mt. Teraso. *B. Hayata et S. Sasaki s. n.*, May 1912²⁾ (TAIF 20525).

¹⁾ Sasaki (1930a) listed it as a type. It was not cited in Hayata (1920), but cited in *E. obtusifolia* auct. non Benth.: Hayata, Icon. Pl. Formos. 2:122. 1912.

²⁾ Collection date unrecorded (Hayata 1912).



Ipomoea rotundisepala Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):206. 1911. Type. Taiwan, in monte Morrison, ad 6,000 ped. alt.¹⁾ T. Kawakami et U. Mori 1915, 15 Nov 1906²⁾ (TAIF 20654).

¹⁾ in monte Morrison;

²⁾ Nov 1906 (Hayata 1911).



ANNOTATION LABEL 251. Convolvulaceae
Ipomoea rotundisepala Hay. Mat. Fl. Form.
 206. 1911. Hab. in monte Morrison, Tai-
 wan, ad 6,000 ped. alt., leg. T. Kawa-
 kami et U. Mori 1915, Nov. 15, 1906.
 Merotype: Y. Tsiang, 21. II. 1947.

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Ipomoea rotundisepala Hayata
 20655

臺灣總督府殖產局植物標本
 No. 1915
 學名: *Ipomoea sepium*
 和名: 赤毛大馬兜風草
 採集年月: 明治四年 月 日
 採集者: 川上說彌
 產地: "

Ipomoea rotundisepala Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):206. 1911. Type (part).
 s. loco.¹⁾ T. Kawakami 1915, s. d.²⁾ (TAIF 20655).

¹⁾ in monte Morrison;

²⁾ Leg. T. Kawakami et U. Mori, Nov 1906, (No. 1915) (Hayata 1911).



Ipomoea tomentosa Yamam., Suppl. Icon. Pl. Formos. 1:42, f. 20. 1925. Syntype.¹⁾ Taiwan, Takao, Subonsha.²⁾ *E. Matsuda* s. n., 2 Jan 1917³⁾ (TAIF 20661).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Ako-Subonsha;

³⁾ Leg. T. Soma, Jan 1918 (Yamamoto 1925).



Ipomoea tomentosa Yamam., Suppl. Icon. Pl. Formos. 1:42, f. 20. 1925. Syntype.¹⁾ Taiwan, Subonsha.²⁾ *E. Matsuda s. n.*, 2 Jan 1917³⁾ (TAIF 20662).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Ako-Subonsha;

³⁾ Leg. *T. Soma*, Jan 1918 (Yamamoto 1925).



Ipomoea tomentosa Yamam., Suppl. Icon. Pl. Formos. 1:42, f. 20. 1925. Syntype.¹⁾ Taiwan, Takao, Subonsha.²⁾ *E. Matsuda s. n.*, 2 Jan 1919³⁾ (TAIF 20663).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Ako-Subonsha;

³⁾ Leg. *T. Soma*, Jan 1918 (Yamamoto 1925).



Ipomoea tomentosa Yamam., Suppl. Icon. Pl. Formos. 1:42, f. 20. 1925. Syntype (part).¹⁾ Taiwan, Ako, Subonsha. *T. Soma s. n.*, Jan 1916²⁾ (TAIF 20664).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Jan 1918 (Yamamoto 1925).



Cordia kanehirai Hayata, Icon. Pl. Formos. 6:31. 1916. Type. Taiwan, Koshun, Kuraru. R. Kanehira 7, 8 Jan 1914¹⁾ (TAIF 20767).

¹⁾ Jan 1914 (Hayata 1916).



Trigonotis elevato-venosa Hayata, Icon. Pl. Formos. 6:32. 1916. Type. Taiwan, Giran, Soseikyaku. B. Hayata s. n., May 1916¹⁾ (TAIF 20934).

¹⁾ 11 May 1916 (Hayata 1916).



ANNOTATION LABEL 249 Boraginaceae
Trigonotis formosana Hay. Fl. Mont. Form.
 171. 1908. Hab. Kagi, Kishirei, Taiwan,
 leg. T. Kawakami et U. Mori 1969, Oct.
 9, 1906. Iso-syntype: Y. Tsaiang,
 21. II. 1947.

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Type specimen

20940

臺灣總督府殖產局植物腊葉

學名: *Trigonotis formosana* Hay

和名: *Trigonotis formosana* Hay

採集年月: 明治三十九年十月九日

採集者: 川上瀧彌
 產地: 嘉義 鬼仔嶺

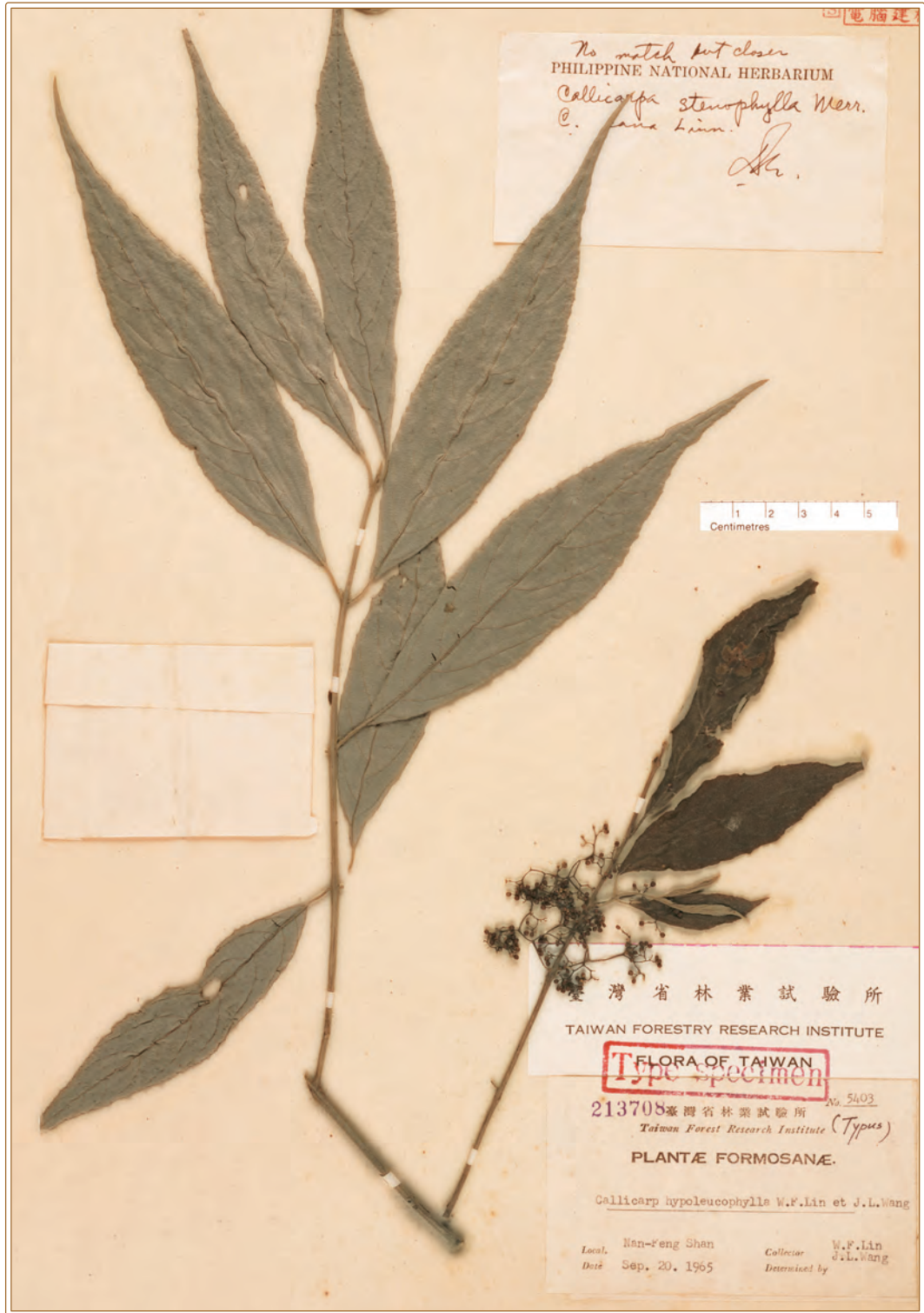
Trigonotis formosana Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):171. 1908. Syntype. Taiwan, Kagi, Kishirei. U. Mori 1969, 9 Oct 1906¹⁾ (TAIF 20940).

¹⁾ Leg. T. Kawakami et U. Mori, Oct 1906, (No. 1969) (Hayata 1908).



Trigonotis formosana Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):171. 1908. Syntype. Taiwan, Taito, Dakunsha. T. Kawakami et U. Mori 2230, 1 Dec 1906¹⁾ (TAIF 20947).

¹⁾ Dec 1906 (Hayata 1908).



Callicarpa hypoleucophylla W. F. Lin & J. L. Wang, Bot. Bull. Acad. Sin. 8(2):185, f. 1, 2, 5. 1967. Syntype. Taiwan, Nan-Feng Shan.¹⁾ W. F. Lin et J. L. Wang 5403, 20 Sept 1965²⁾ (TAIF 213708).

¹⁾ Nanfengshan ad 1,000-1,200 m alt.;

²⁾ Leg. J. L. Wang, No. 5403, Feb 1965 (Lin & Wang 1967).



Callicarpa hypoleucophylla W. F. Lin & J. L. Wang, Bot. Bull. Acad. Sin. 8(2):185, f. 1, 2, 5. 1967. Syntype. Taiwan, Nan-Feng Shan.¹⁾ W. F. Lin et J. L. Wang 5403-2, 20 Sept 1965²⁾ (TAIF 213709).

¹⁾ Nanfengshan ad 1,000-1,200 m alt.;

²⁾ Leg. J. L. Wang, No. 5403, Feb 1965 (Lin & Wang 1967).



Callicarpa hypoleucophylla W. F. Lin & J. L. Wang, Bot. Bull. Acad. Sin. 8(2):185, f. 1, 2, 5. 1967. Syntype. Taiwan, Nan-Feng Shan.¹⁾ W. F. Lin et J. L. Wang 5403-3, 20 Sept 1965²⁾ (TAIF 213710).

¹⁾ Nanfengshan ad 1,000-1,200 m alt.;

²⁾ Leg. J. L. Wang, No. 5403, Feb 1965 (Lin & Wang 1967).



Callicarpa randaiensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):222. 1911. Type. Taiwan, Randaizan. T. Kawakami et U. Mori 7023, 9 Aug 1908¹⁾ (TAIF 21023).

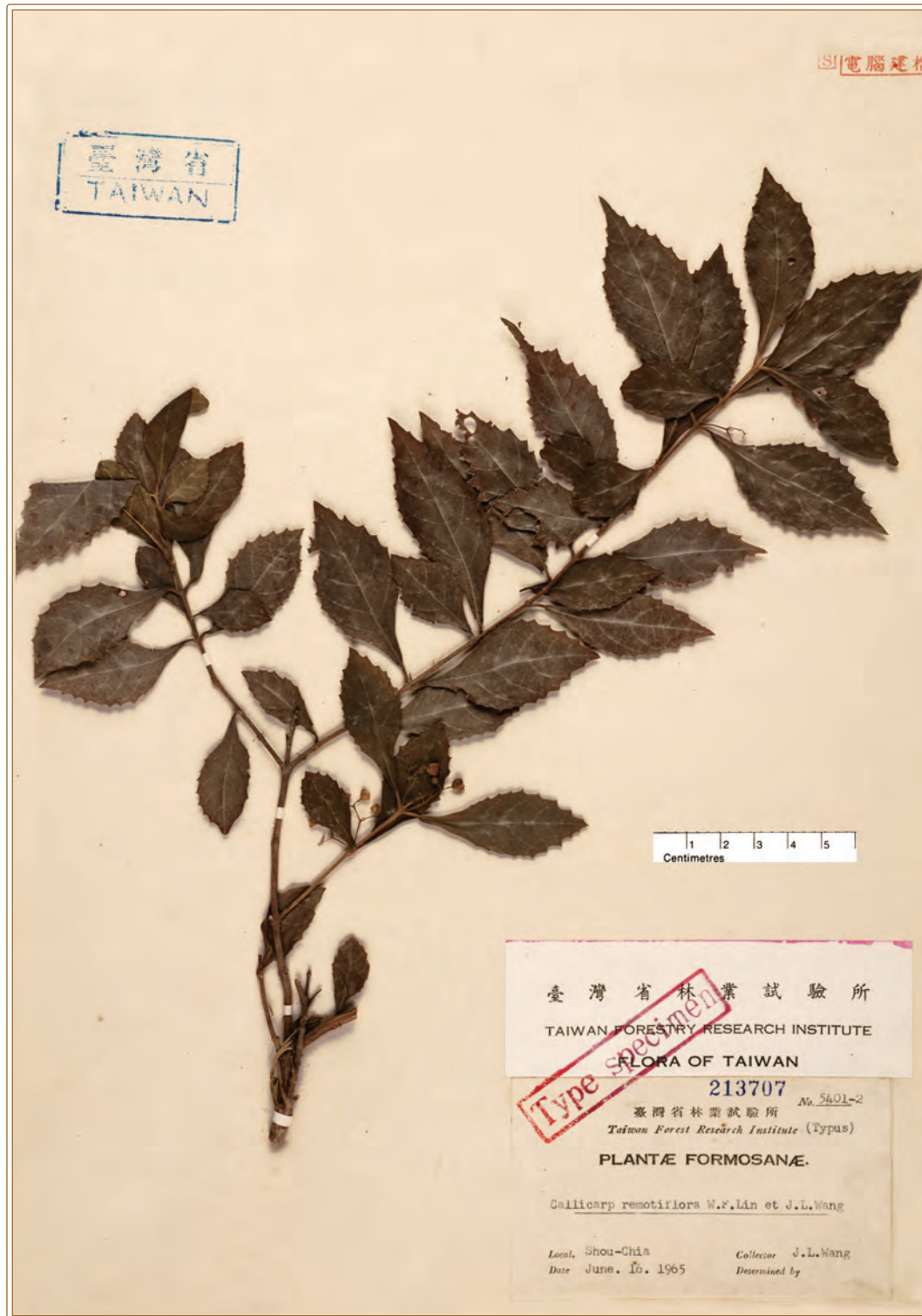
¹⁾ Leg. U. Mori, Aug 1908, (No. 7023) (Hayata 1911).



Callicarpa remotiflora W. F. Lin & J. L. Wang, Bot. Bull. Acad. Sin. 8(2):185, f. 3, 4, 6. 1967.
Syntype. Taiwan, Shuang-Liu.¹⁾ W. F. Lin et J. L. Wang s. n., 25 June 1966²⁾ (TAIF 213706).

¹⁾ Shouchia ad 460 m alt.;

²⁾ Leg. J. L. Wang No.5401, Sept 1965 (Lin & Wang 1967).



Callicarpa remotiflora W. F. Lin & J. L. Wang, Bot. Bull. Acad. Sin. 8(2):185, f. 3, 4, 6. 1967. Syntype. Taiwan, Shou-Chia.¹⁾ *J. L. Wang* 5401-2, 16 June 1965²⁾ (TAIF 213707).

¹⁾ Shouchia ad 460 m alt.;

²⁾ Leg. *J. L. Wang* No.5401, Sept 1965 (Lin & Wang 1967).



Callicarpa remotiserrulata Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):223. 1911. Type (part).¹⁾ Taiwan, Koshun, Botanroscha. *G. Nakahara* 919, Dec 1906²⁾ (TAIF 21025³⁾).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. *G. Nakahara*, 1906, (No. 619) (Hayata 1911).

³⁾ The left part of this specimen has been removed.



Clerodendron glaberrimum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):216. 1911. Type. Taiwan, Randaizan. T. Kawakami, B. Hayata et U. Mori 7045, 9 Aug 1908¹⁾ (TAIF 21064).

¹⁾ Leg. B. Hayata et U. Mori, Aug 1908, (No. 7045) (Hayata 1911).



Clerodendron koshunense Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):217. 1911. Type. Taiwan, Koshun, Kurarusha. T. Kawakami 1646, 2 July 1906¹⁾ (TAIF 21103).

¹⁾ July 1906 (Hayata 1911).



Ajuga dictyocarpa Hayata, Icon. Pl. Formos. 8:84. 1919. Type.¹⁾ Taiwan, Taihoku, Dairyoto. Collector unrecorded, 8 June 1907²⁾ (TAIF 22499).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. *T. Kawakami*; collection date unrecorded (Hayata 1919).

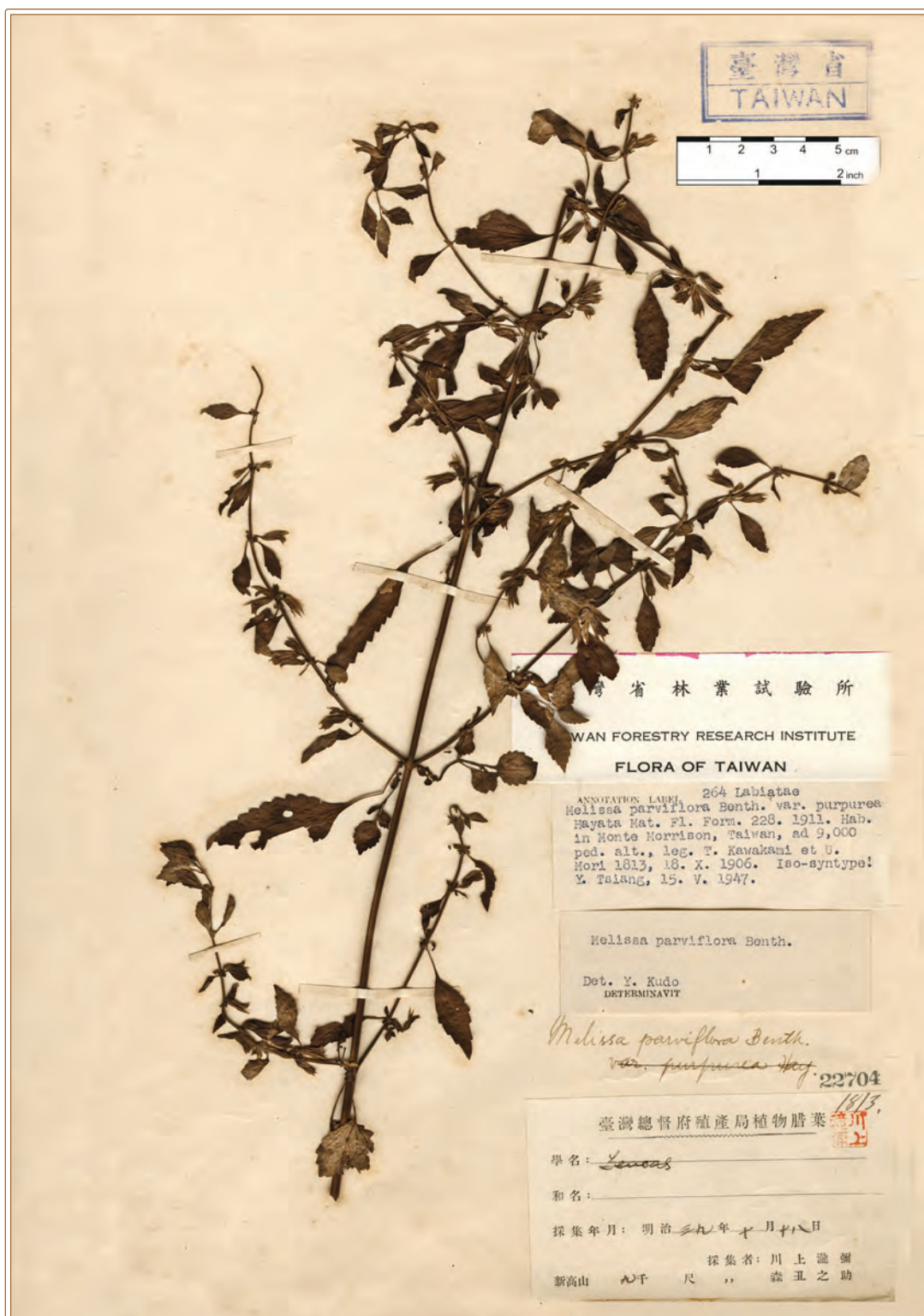


Calamintha laxiflora Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):228. 1911. Syntype. Taiwan, in monte Morrison, ad 9,000 ped. alt. *T. Kawakami et U. Mori* 1921, 17 Nov 1906¹⁾ (TAIF 22954).
¹⁾ Nov 1906 (Hayata 1911).



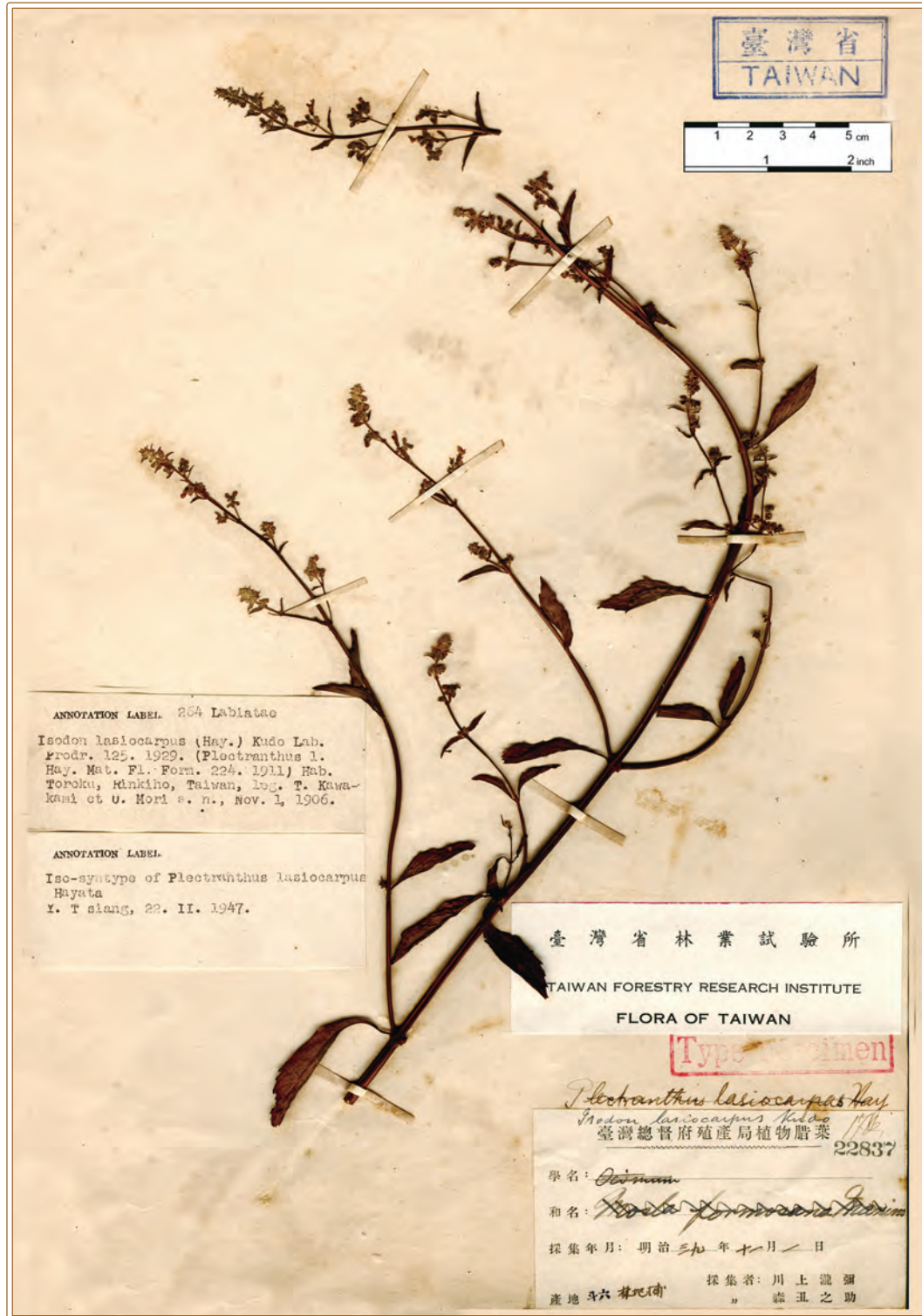
Coleus mucosus Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):225. 1911. Syntype. Taiwan, Kagi, Kodensho. *U. Mori* 1755, 8 Oct 1906¹⁾ (TAIF 22552).

¹⁾ Leg. *T. Kawakami et U. Mori*, Oct 1906, (No. 1755) (Hayata 1911).



Melissa parviflora Benth. var. *purpurea* Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):228. 1911. Syntype. Taiwan, in monte Morrison, ad 9,000 ped. alt. T. Kawakami et U. Mori 1813, 18 Oct 1906¹⁾ (TAIF 22704).

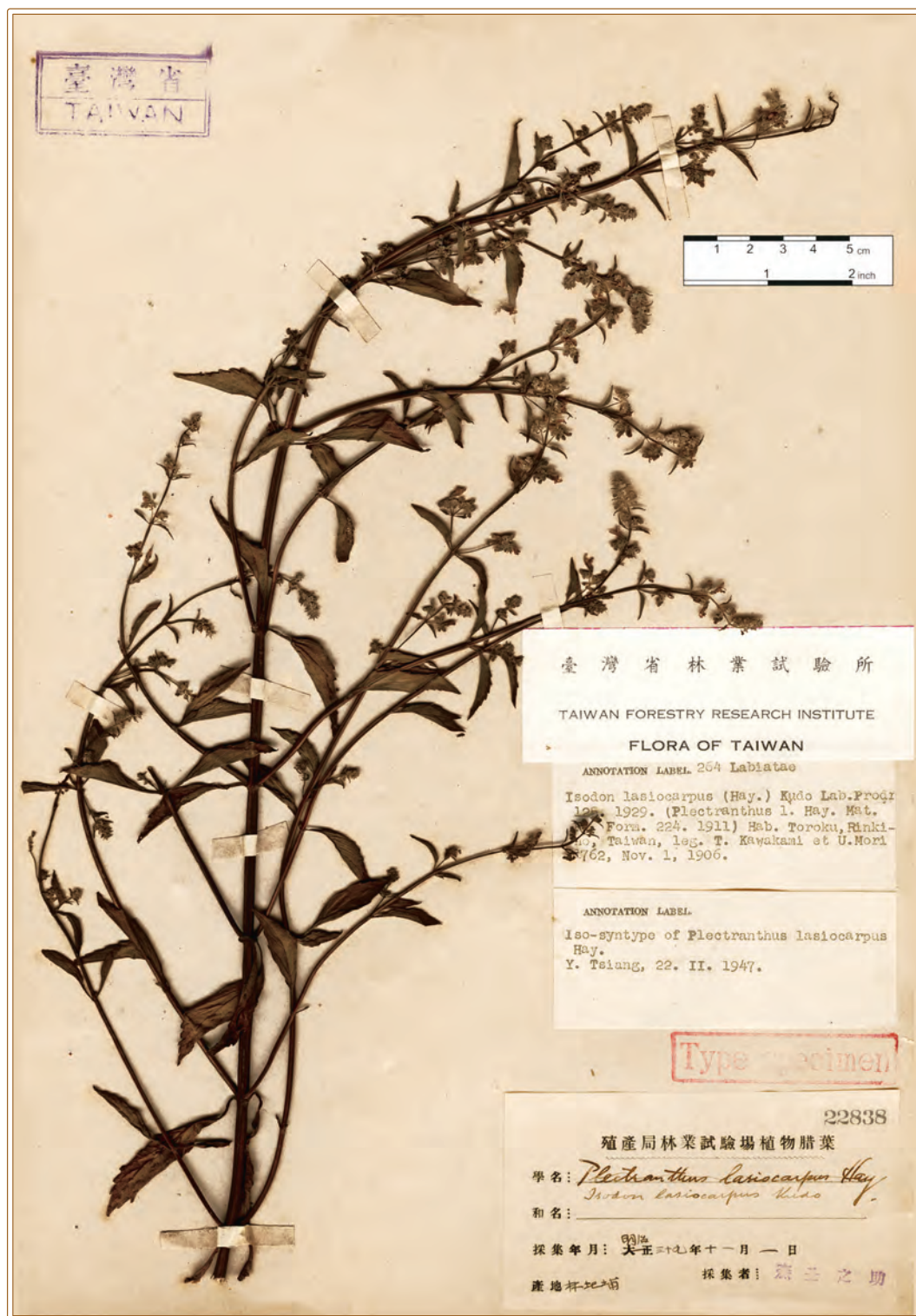
¹⁾ Oct 1906 (Hayata 1911).



Plectranthus lasiocarpus Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):224. 1911. Syntype.¹⁾ Taiwan, Toroku, Rinkihō. T. Kawakami et U. Mori 1762, 1 Nov 1906²⁾ (TAIF 22837).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. T. Kawakami et U. Mori, Nov 1906, (No. 1761) (Hayata 1911).



Plectranthus lasiocarpus Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):224. 1911. Syntype.¹⁾
Taiwan, Rinkihō. *U. Mori s. n.*, 1 Nov 1906²⁾ (TAIF 22838).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. T. Kawakami et U. Mori, Nov 1906, (No. 1761) (Hayata 1911).



Salvia formosana Hayata, Icon. Pl. Formos. 8:99. 1919. Syntype.¹⁾ Taiwan, Heirinbi. *T. Kawakami* s. n., 25 Jan 1914²⁾ (TAIF 22872).

¹⁾ Sasaki (1930a) listed it as a type.

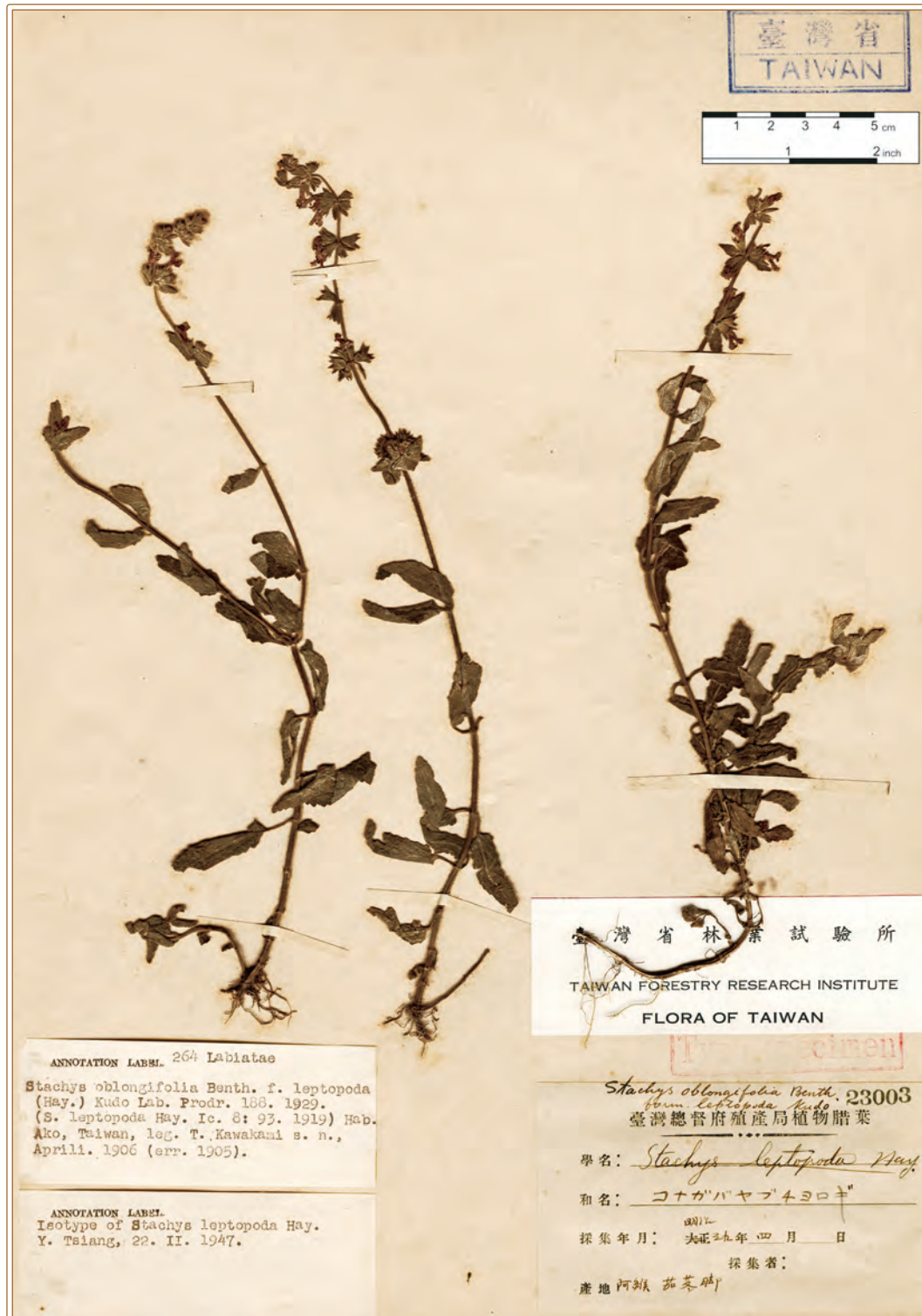
²⁾ Collector and collection date unrecorded (Hayata 1919).



Scutellaria austrotaiwanensis T.-H. Hsieh & T.-C. Huang, *Taiwania* 42(2):111, f. 12. 1997. Isotype. Taiwan, Pingtung, Linglongshan.¹⁾ *T. C. Huang, T. H. Hsieh, S. F. Huang et P. C. Lee 16266*, 20 Jan 1994²⁾ (TAIF 107304).

¹⁾ Pingtung, Lilongshan;

²⁾ Leg. *T.-C. Huang, C.-H. Hsieh, S.-F. Huang et P.-C. Lee 16266*; Collection date unrecorded (Hsieh & Huang 1997).



Stachys leptopoda Hayata, Icon. Pl. Formos. 8:93. 1919. Type.¹⁾ Taiwan, Ako, Katokyaku.²⁾ Collector unrecorded, Apr 1906³⁾ (TAIF 23003).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Ako;

³⁾ Leg. T. Kawakami, Apr 1905 (Hayata 1919).



Stachys leptopoda Hayata, Icon. Pl. Formos. 8:93. 1919. Type.¹⁾ Taiwan, Ako, Katokyaku.²⁾ T. Kawakami s. n., 5 Apr 1906³⁾ (TAIF 23004).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Ako;

³⁾ Apr 1905 (Hayata 1919).



Stachys subargentea Hayata, Icon. Pl. Formos. 8:94. 1919. Type.¹⁾ Taiwan, Bioritsu, Syukkoko.²⁾ Y. Shimada s. n., 27 Apr³⁾ (TAIF 23006).

¹⁾ Sasaki (1930a) did not list it as a type; but Y. Tsiang treated it as an isotype on the annotation.

²⁾ Bioritsu;

³⁾ Mar 1909 (Hayata 1919).



Physalis lirii Y. C. Liu & C. H. Ou, Quart. J. Chin. Forest. 7(4):150. 1974. Isotype. Taiwan, Kuan-tao-chi.¹⁾ Y. C. Liu et C. H. Ou 2105, 8 Sept 1973 (TAIF 213700).

¹⁾ In waste places at altitudes of 700 m from Kuan-Tao-Chi (Liu & Ou 1974).



Physalis lirii Y. C. Liu & C. H. Ou, Quart. J. Chin. Forest. 7(4):150. 1974. Isotype. Taiwan, Kuan-tao-chi.¹⁾ Y. C. Liu et C. H. Ou 2105, 8 Sept 1973 (TAIF 213701).

¹⁾ In waste places at altitudes of 700 m from Kuan-Tao-Chi (Liu & Ou 1974).



Solanum morrisonense Hayata, Gen. Ind. Fl. Formos. 52. 1917. *nomen nudum*. Type (part).¹⁾ Taiwan, Mt. Niitaka, ad 7,000 ped. alt.²⁾ *T. Kawakami et U. Mori s. n.*, Oct 1906³⁾ (TAIF 23180).

¹⁾ Sasaki (1930) listed it as a type.

²⁾ Niitaka-horoshi;

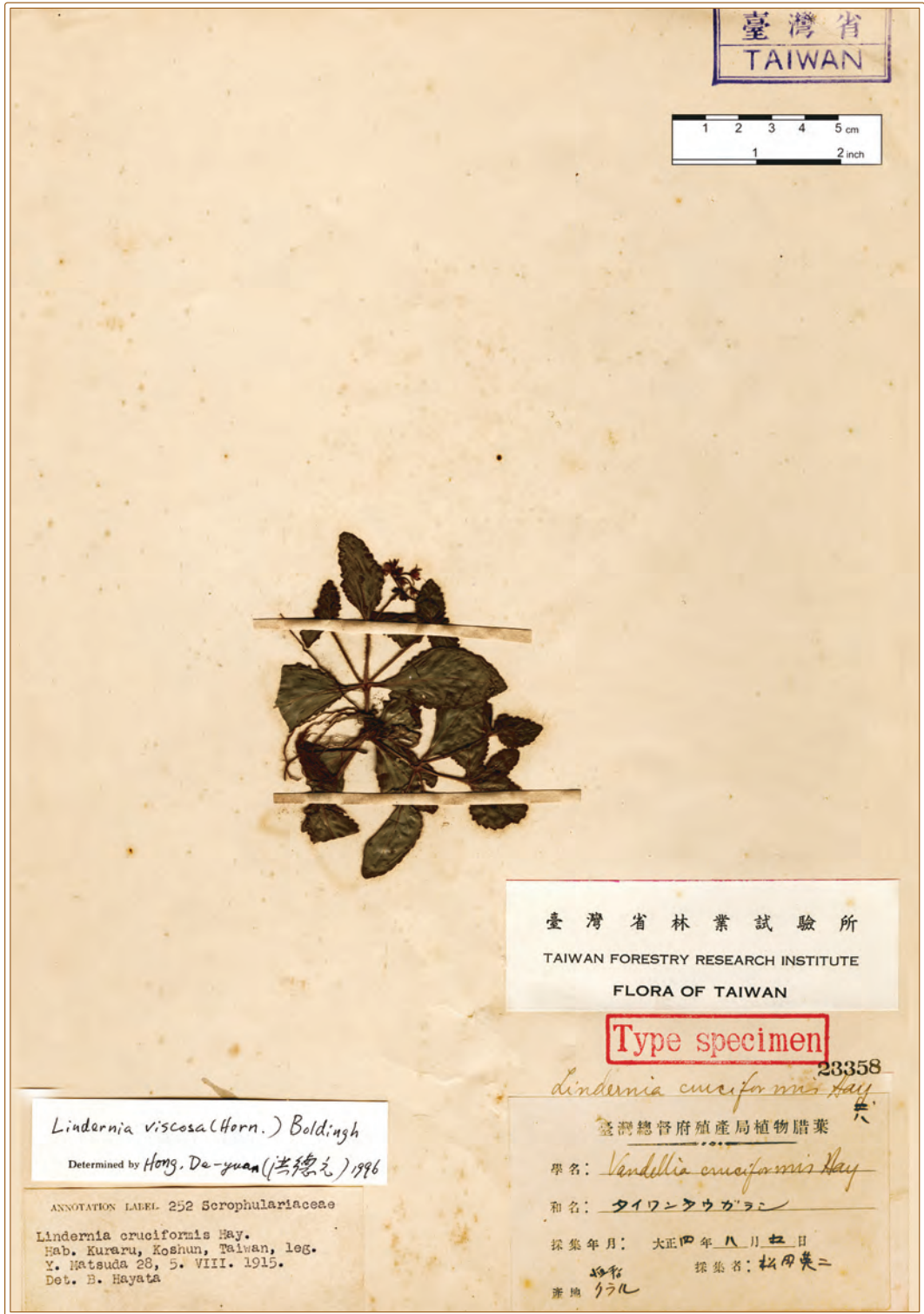
³⁾ Collector and collection date unrecorded (Hayata 1917).



Bonnaya aristato-serrata Hayata, Icon. Pl. Formos. 9:79. 1920. Type.¹⁾ Taiwan, Kagi. *T. Soma s. n.*, *s. d.*²⁾ (TAIF 23319).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Sept 1913 (Hayata 1920).



臺灣省
TAIWAN

1 2 3 4 5 cm
1 2 inch

臺灣省林業試驗所
TAIWAN FORESTRY RESEARCH INSTITUTE
FLORA OF TAIWAN

Type specimen

Lindernia cruciformis Hayata 23358
六

臺灣總督府殖產局植物腊葉

學名: *Vandellia cruciformis* Hay

和名: タイワンタウカラシ

採集年月: 大正四年八月廿日

採集者: 松田英二

産地: 台湾 杉林

Lindernia viscosa (Horn.) Boldingh
Determined by Hong, De-guan (洪德元) 1996

ANNOTATION LABEL: 252 Scrophulariaceae
Lindernia cruciformis Hay.
Hab. Kururu, Koshun, Taiwan, leg.
Y. Matsuda 26, 5. VIII. 1915.
Det. E. Hayata

Lindernia cruciformis Hayata, Icon. Pl. Formos. 9:78. 1920. Syntype.¹⁾ Taiwan, Koshun, Kururu. *E. Matsuda s. n.*, 5 Aug 1915²⁾ (TAIF 23358).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1920).



Lindernia stellariifolia Hayata, Icon. Pl. Formos. 9:77. 1920. Syntype.¹⁾ Taiwan, Ako. *T. Soma* s. n., 12 Sept 1915²⁾ (TAIF 23367).

¹⁾ Sasaki (1930a) did not list this specimen, but Y. Tsiang treated it as an iso-syntype on the annotation.

²⁾ Collector and collection date unrecorded (Hayata 1920).



Paulownia taiwaniana T. W. Hu & H. J. Chang, *Taiwania* 20(2):166, pl. 1-3. 1974. Holotype. Taiwan, Chiayi, Chiao-li-ping, Alt. 1,000 m. *H. J. Chang et S. Y. Leu* 2364, 6 Apr 1974¹⁾ (TAIF 213716).

¹⁾ Collection date unrecorded (Hu & Chang 1974).



Sopubia formosana Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):175. 1908. Syntype. Taiwan, Kagi, Kodensho. T. Kawakami et U. Mori 1739, 9 Oct 1906¹⁾ (TAIF 23415).

¹⁾ Oct 1906 (Hayata 1908).



ANNOTATION LABEL 252 Scrophulariaceae
Torenia hokutensis Hay. Ic. Pl. Formos. 9: 80. 1920. Hab. Hokuto, Taihoku, Taiwan, leg. G. Nakahara s. n., Jan. 1907. Iso-syntype: Y. Tsiang, 22. II. 1947.

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 23516
 Type specimen

臺灣總督府殖產局植物腊葉標本
 學名: *Torenia hokutensis* Hay.
 和名: _____
 採集年月: 明治 41 年 1 月 _____ 日
 採集者: 川上瀧彌
 產地: 台北 中原源治

Torenia hokutensis Hayata, Icon. Pl. Formos. 9:80. 1920. Syntype.¹⁾ Taiwan, Taihoku, Hokuto. G. Nakahara s. n., Jan 1907²⁾ (TAIF 23516).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1920).



Torenia hokutensis Hayata, Icon. Pl. Formos. 9:80. 1920. Syntype.¹⁾ Taiwan, Shintiku, Goshizan. *T. Kawakami* 2265, Dec 1905²⁾ (TAIF 23518).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1920).

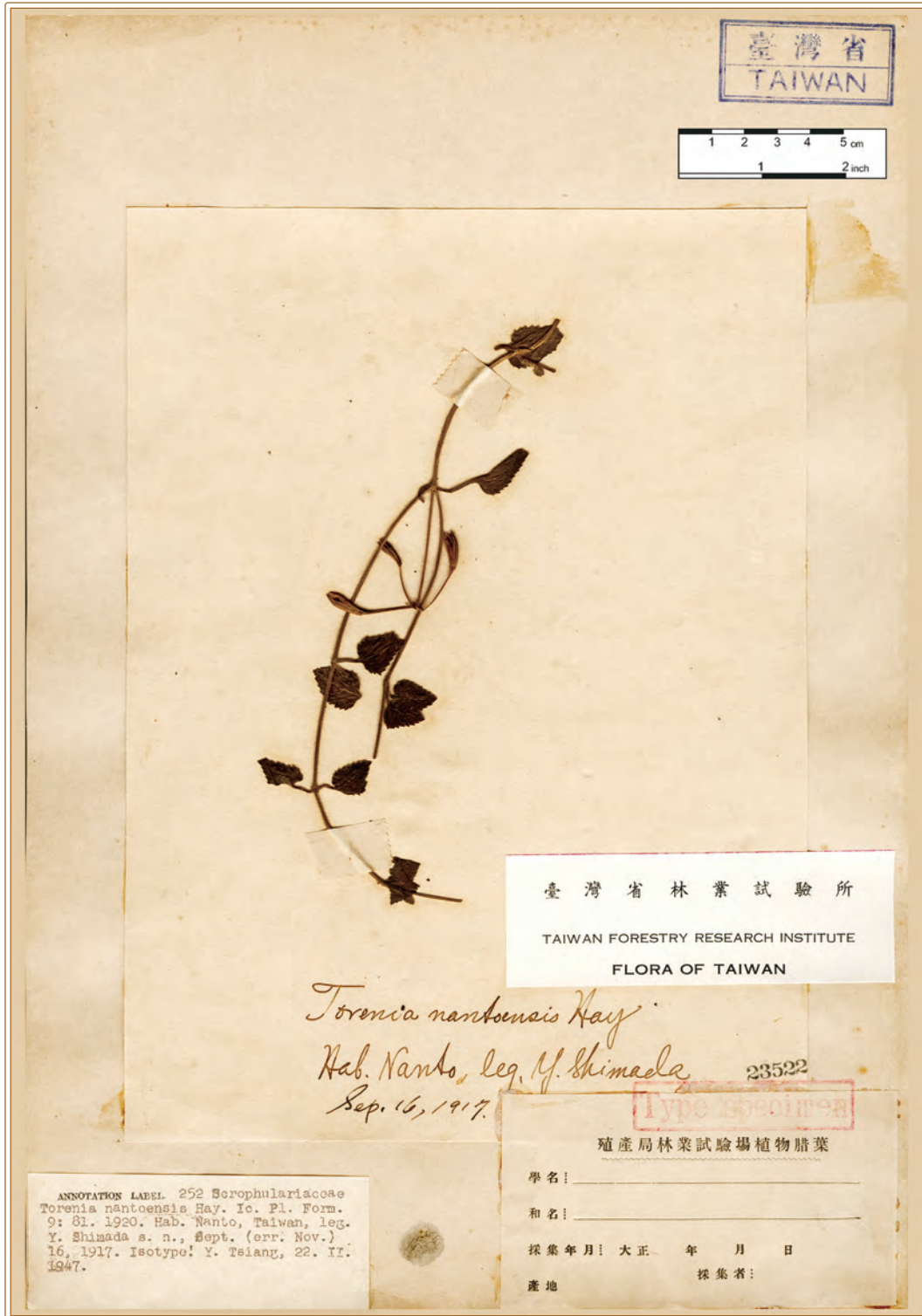


Torenia hokutensis Hayata, Icon. Pl. Formos. 9:80. 1920. Syntype.¹⁾ Taiwan, Nanto, Ranrunsha.²⁾ *U. Mori* 3394, 28 July 1907³⁾ (TAIF 23520).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Nanto;

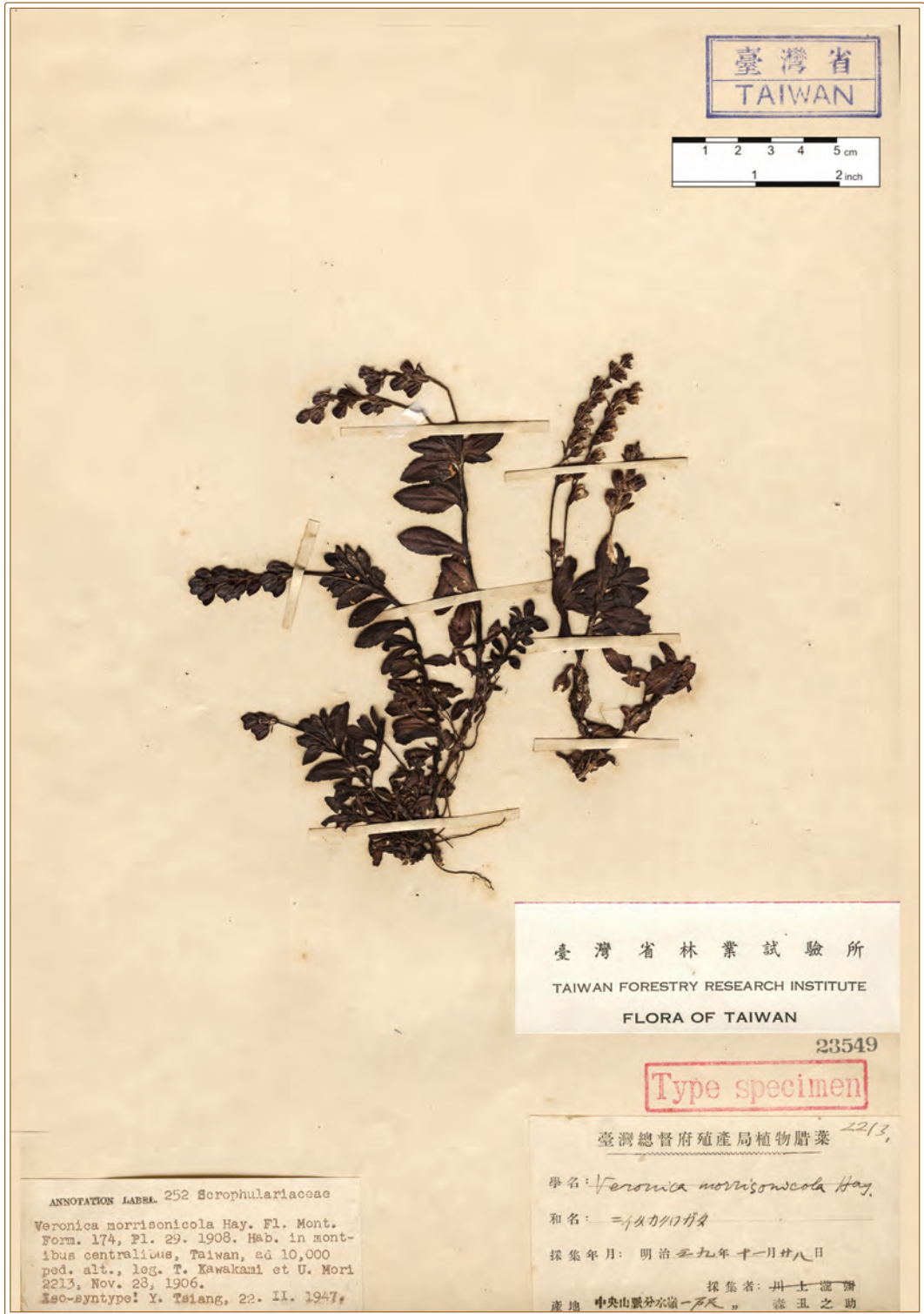
³⁾ Collector and collection date unrecorded (Hayata 1920).



Torenia nantoensis Hayata, Icon. Pl. Formos. 9:81. 1920. Type.¹⁾ Taiwan, Nanto. *Y. Shimada* s. n., 16 Sept 1917²⁾ (TAIF 23522).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Nov 1917 (Hayata 1920).



Veronica morrisonicola Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):174, pl. 29. 1908. Syntype. Taiwan, in montibus centralibus, ad 10,000 ped. alt. *U. Mori* 2213, 28 Nov 1906¹⁾ (TAIF 23549).

¹⁾ Leg. *T. Kawakami et U. Mori*, Nov 1906, (No. 2213) (Hayata 1908).



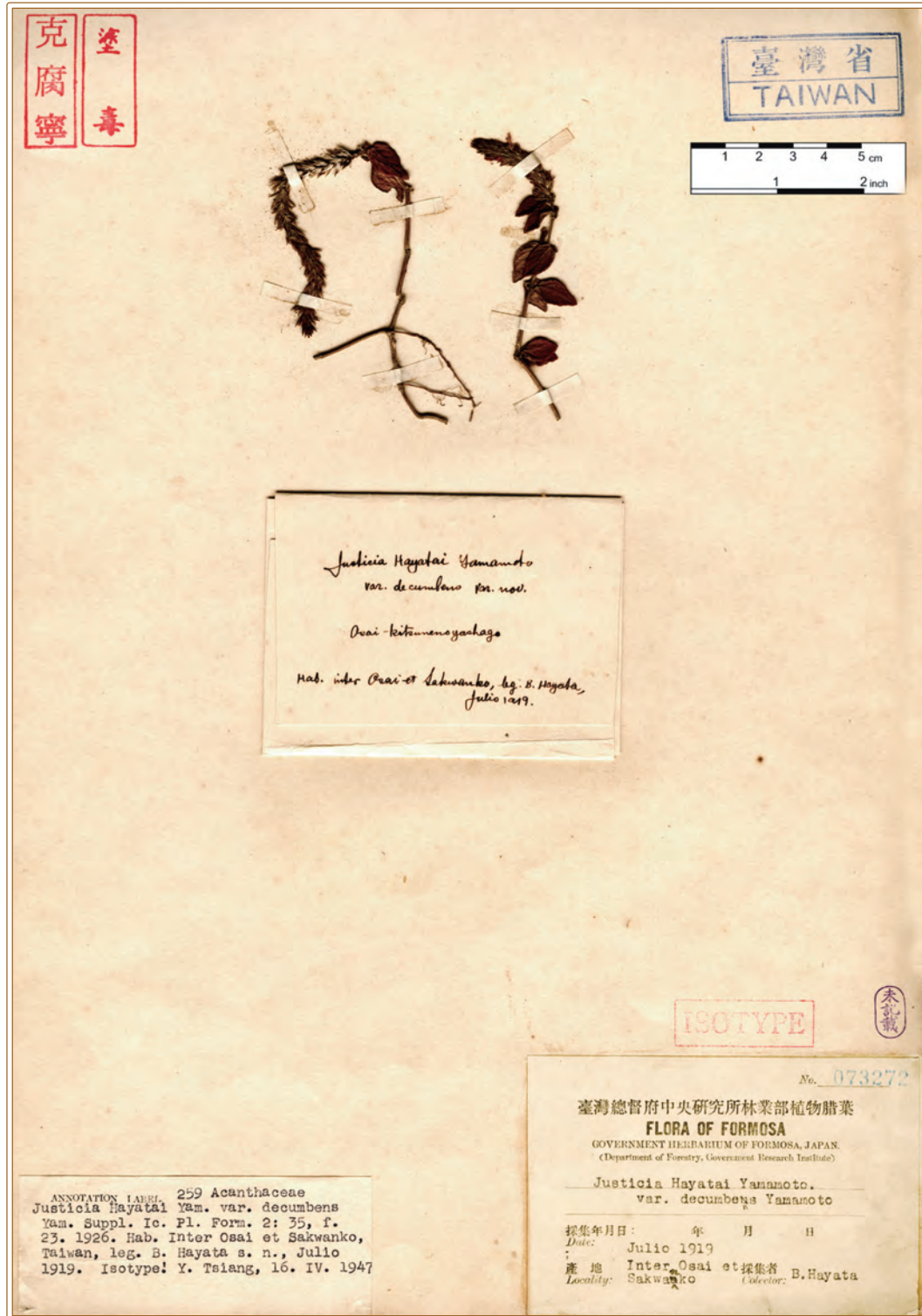
Veronica oligosperma Hayata, Icon. Pl. Formos. 5:128, f. 47 a-i. 1915. Type. Taiwan, Mt. Morrison, ad 12,000 ped. alt. S. Sasaki s. n., 20 Oct 1909¹⁾ (TAIF 23565).

¹⁾ Leg. T. Kawakami et S. Sasaki, Oct 1909 (Hayata 1915).



Dicliptera uraiensis Hayata, Icon. Pl. Formos. 9:85. 1920. Type.¹⁾ Taiwan, Uraisha. S. Sasaki s. n., s. d. (TAIF 23805).

¹⁾ Sasaki (1930a) listed it as a type.

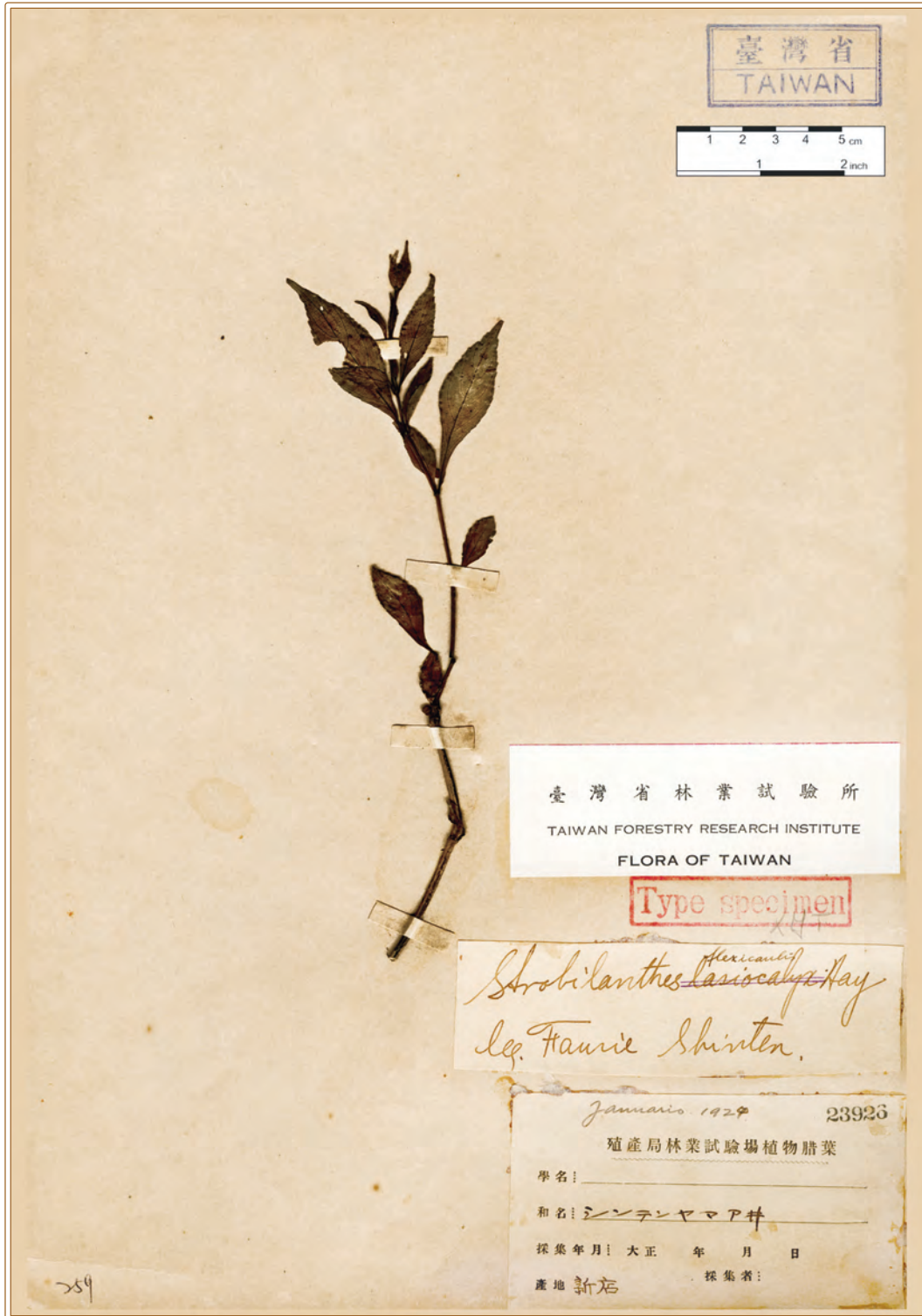


Justicia hayatai Yamam. var. *decumbens* Yamam., Suppl. Icon. Pl. Formos. 2:35, f. 23. 1926. Type. Taiwan, Inter Osai et Sakwanko. B. Hayata s. n., July 1919 (TAIF 73272).



Strobilanthes flexicaulis Hayata, Icon. Pl. Formos. 5:135, f. 50. 1915. Type (part). Taiwan, Mt. Arisan. B. Hayata et S. Sasaki s. n., 20 Jan 1912¹⁾ (TAIF 23933).

¹⁾ Jan 1912 (Hayata 1915).



Strobilanthes lasiocalyx Hayata, Icon. Pl. Formos. 9:82. 1920. Type.¹⁾ Taiwan, Shinten. *U. Faurie* s. n., Jan 1924²⁾ (TAIF 23926).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Jan 1914 (Hayata 1920).



Strobilanthes longesplicatus Hayata, Icon. Pl. Formos. 9:83. 1920. Type.¹⁾ Taiwan, Taito, Paroe.²⁾ Z. Kobayashi s. n.,³⁾ Oct 1907 (TAIF 23960).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Taito: Haroye;

³⁾ Leg. Kobayashi, No. 6011 (Hayata 1920).



Strobilanthes longespicus Hayata, Icon. Pl. Formos. 9:83. 1920. Type.¹⁾ Taiwan, Taito, Paroe.²⁾ Z. Kobayashi s. n.,³⁾ Oct 1907 (TAIF 23961).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Taito: Haroye;

³⁾ Leg. Kobayashi, No. 6011 (Hayata 1920).



Strobilanthes prionophyllus Hayata, Icon. Pl. Formos. 9:84. 1920. Type. Taiwan, Taito, Ibahosha.¹⁾
U. Mori 2150, 5 Dec 1906²⁾ (TAIF 23940).

¹⁾ Taito: Inikufukusha (Hayata 1920); “Inikufukusha” in Japanese means “Ibahosha” in Taiwanese.

²⁾ Dec 1899 (Hayata 1920).



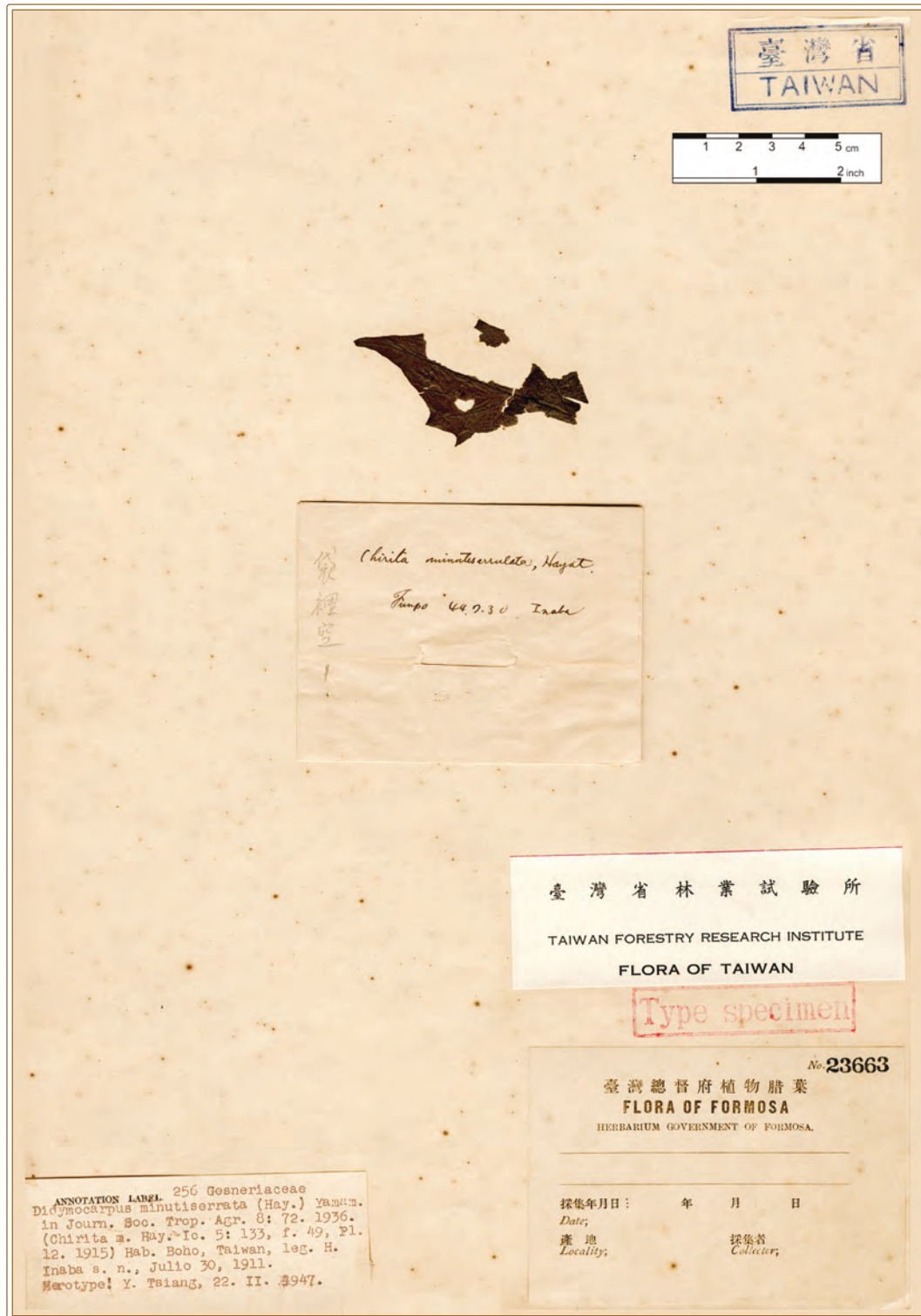
Chirita bicornuta Hayata, Icon. Pl. Formos. 3:154. 1913. Paratype. Taiwan, Mt. Arisan. B. Hayata et S. Sasaki s. n., 20 Jan 1912¹⁾ (TAIF 23653).

¹⁾ Jan 1912 (Hayata 1913).



Chirita bicornuta Hayata, Icon. Pl. Formos. 3:154. 1913. Paratype. Taiwan, Mt. Arisan. B. Hayata et S. Sasaki s. n., 20 Jan 1912¹⁾ (TAIF 23654).

¹⁾ Jan 1912 (Hayata 1913).



Chirita minuteserrulata Hayata, Icon. Pl. Formos. 5:133, t. 12, f. 49. 1915. Type (part).¹⁾ Taiwan, Hunpo.²⁾ *H. Inaba* s. n., 30 July 1911³⁾ (TAIF 23663).

¹⁾ Sasaki (1930a) did not list it as a type.

²⁾ Boho (Hayata 1915); same meaning of "Hunpo" in Japanese.

³⁾ July 1911 (Hayata 1915).



Rhynchoglossum hologlossum Hayata, Icon. Pl. Formos. 5:131, t. 11. 1915. Paratype. Taiwan, Shintiku, Taiko. T. Kawakami s. n., Aug 1910 (TAIF 23694).



Rhynchospermum hologlossum Hayata, Icon. Pl. Formos. 5:131, t. 11. 1915. Paratype. Taiwan, Mt. Randaisan. T. Kawakami, B. Hayata et U. Mori 7098, 10 Aug 1908¹⁾ (TAIF 23698).

¹⁾ Leg. B. Hayata et U. Mori, Aug 1908 (No. 7098) (Hayata 1915).



Rhynchoglossum hologlossum Hayata, Icon. Pl. Formos. 5:131, t. 11. 1915. Paratype. Taiwan, Kagi, Kishirei. U. Mori 1777, 9 Oct 1907¹⁾ (TAIF 23699).

¹⁾ Oct 1907 (Hayata 1915).



ANNOTATION LABEL 253 Orobanchaceae
 Xylanche Kawakamii (Hay.) G. Beck in
 Engl. Pflanzenr. Orob. 330. 1930.
 (Boschniakia Kawakamii Hay. Ic. Pl. Form.
 4: 19. 1914) Hab. Mt. Morrison, Taiwan
 ad 10,000 ped. alt., leg. T. Kawakami
 et S. Sasaki s. n., Oct. 9, 1909.
 Isotype! Y. Tolang, 22. II. 1947.

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 FLORA OF TAIWAN

Type specimen

Boschniakia himalaica, Hk. f. 7

23622 石南
 臺灣總督府殖產局植物腊葉
 學名 *Boschniakia kawakamii* Hayata
 和名 マオニシ(明) Type!
 採集年月 明治四十二年十月九日
 採集者 川島 雄一
 產地 新高山一ノ尾

Boschniakia kawakamii Hayata, Icon. Pl. Formos. 4:19. 1914. Type. Taiwan, Mt. Morrison, ad 10,000 ped. alt. S. Sasaki s. n., 9 Oct 1909¹⁾ (TAIF 23622).

¹⁾ Leg. T. Kawakami et S. Sasaki, Oct 1909 (Hayata 1914).



Abelia ionandra Hayata, Icon. Pl. Formos. 7:31, pl. 5. 1918. Isotype. Taiwan, Kwarenko, Naitaroko, inter Busegan et Seisui. B. Hayata et S. Sasaki s. n., 2 May 1917¹⁾ (TAIF 24830²⁾).

¹⁾ May 1917 (Hayata 1918).

²⁾ A duplicate in TI was treated as a holotype (Hara & Ohba 1983, pl. 8).



Abelia ionandra Hayata, Icon. Pl. Formos. 7:31, pl. 5. 1918. Isotype. Taiwan, Kwarenko, Naitaroko, inter Busegan et Seisui. B. Hayata et S. Sasaki s. n., 2 May 1917¹⁾ (TAIF 24831²⁾).

¹⁾ May 1917 (Hayata 1918).

²⁾ A duplicate in TI was treated as a holotype (Hara & Ohba 1983, pl. 8).



Lonicera oiwakensis Hayata, Icon. Pl. Formos. 6:24, pl. 5. 1916. Type (part). Taiwan, Taichun, Oiwake.¹⁾ B. Hayata s. n., Apr 1916 (TAIF 24861).

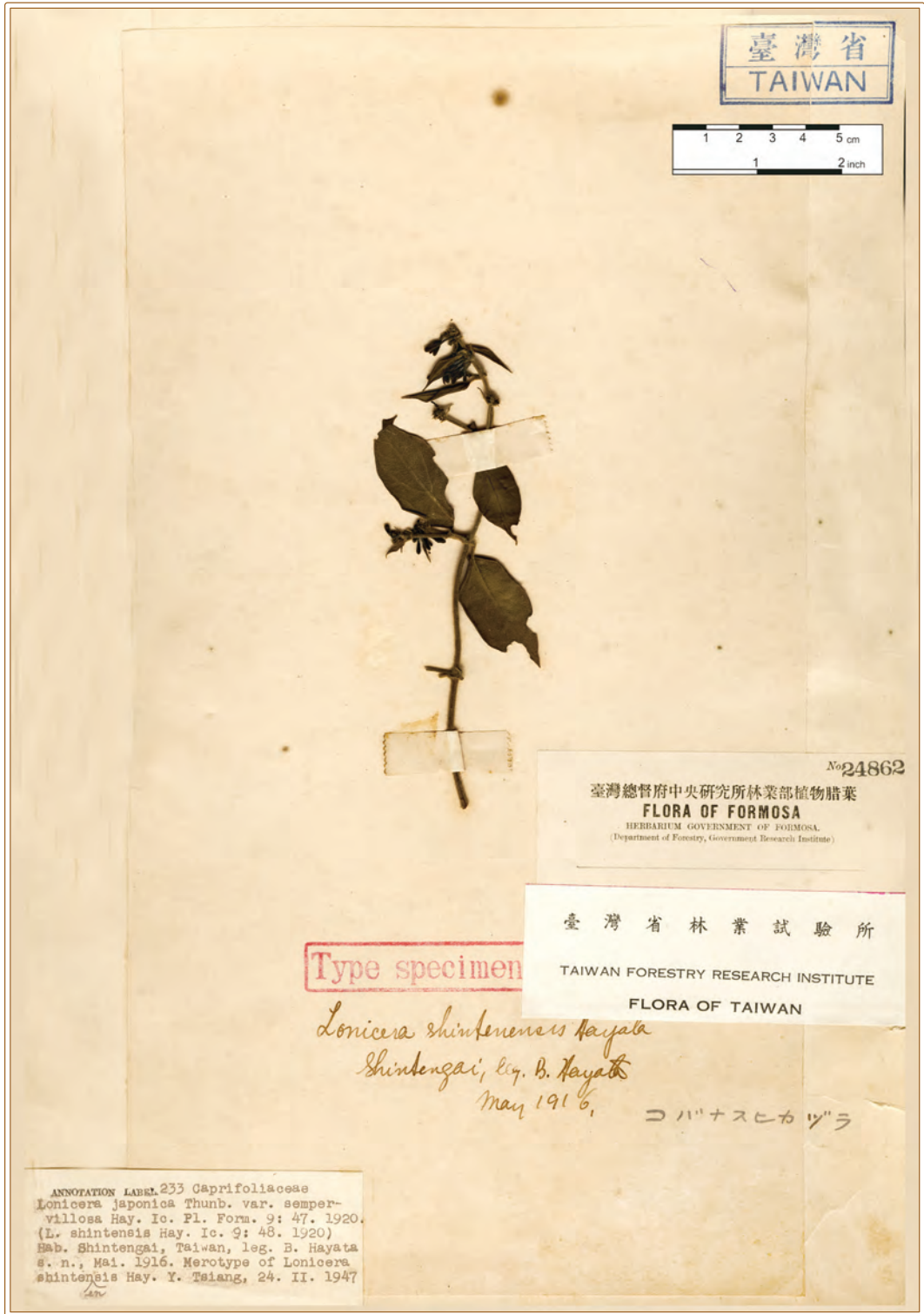
¹⁾ Musha: Oiwake, ad 8,750 ped. alt. (Hayata 1916).



Lonicera rubropunctata Hayata, Icon. Pl. Formos. 9:48. 1920. Syntype.¹⁾ Taiwan, Heirinbi. *B. Hayata s. n.*, 9 May 1917²⁾ (TAIF 24845).

¹⁾ Sasaki (1930a) did not list it as a type; but Y. Tsiang treated it as an isotype on the annotation.

²⁾ Apr 1916 (Hayata 1920).



Lonicera shintenensis Hayata, Icon. Pl. Formos. 9:48. 1920. Type (part).¹⁾ Taiwan, Shintengai.²⁾ *B. Hayata* s. n., May 1916 (TAIF 24862).

¹⁾ Sasaki (1930a) listed it as a type.

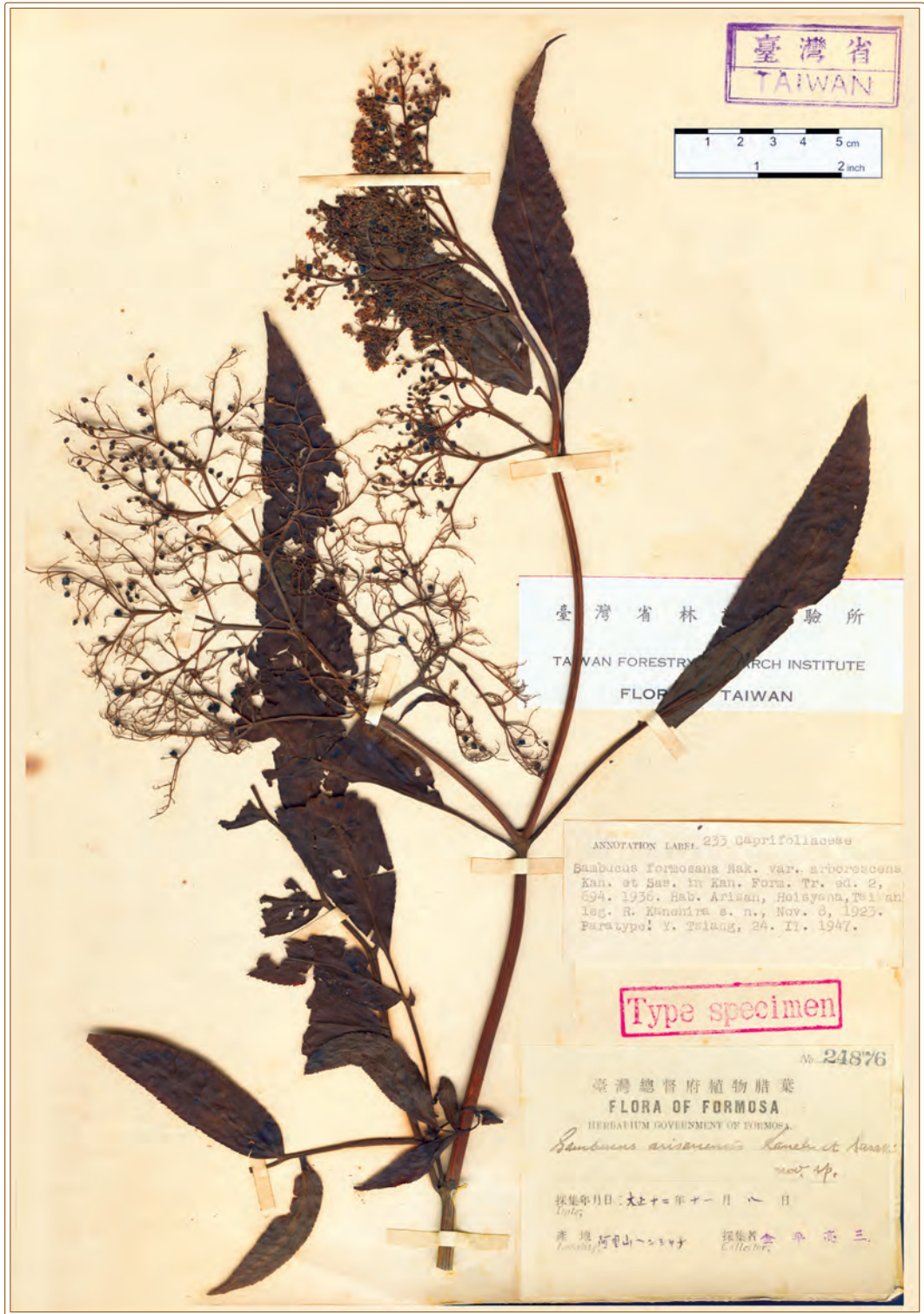
²⁾ Shinten (Hayata 1920).



Sambucus formosana Nakai var. *arborescens* Kaneh. & Sasaki,¹⁾ Formos. Tr. ed. 2:694. 1936. Syntype. Taiwan, Taichun, Nitaka, Naihumpo. *S. Sasaki* s. n., 14 Dec 1923²⁾ (TAIF 24875).

¹⁾ Without Latin description.

²⁾ Dec 1923 (Kanehira 1936).



Sambucus formosana Nakai var. *arborescens* Kaneh. & Sasaki,¹⁾ Formos. Tr. ed. 2:694. 1936. Syntype. Taiwan, Arisan, Heisyana. R. Kanehira s. n., 8 Nov 1923²⁾ (TAIF 24876).

¹⁾ Without Latin description.

²⁾ Nov 1923 (Kanehira 1936).



Sambucus formosana Nakai var. *arborescens* Kaneh. & Sasaki,¹⁾ Formos. Tr. ed. 2:694. 1936. Syntype. Taiwan, Arisan, Heisyana. R. Kanehira s. n., 8 Nov 1923²⁾ (TAIF 24877).

¹⁾ Without Latin description.

²⁾ Nov 1923 (Kanehira 1936).



Sambucus formosana Nakai var. *arborescens* Kan. & Sasaki,¹⁾ Formos. Tr. ed. 2:694. 1936. Syntype. Taiwan, Arisan, Heisyana. R. Kanehira s. n., 8 Nov 1923²⁾ (TAIF 24878).

¹⁾ Without Latin Description.

²⁾ Nov 1923 (Kanehira 1936).



Sambucus formosana Nakai var. *arborescens* Kan. & Sasaki,¹⁾ Formos. Tr. ed. 2:694. 1936. Syntype. Taiwan, Arisan, Heisyana. R. Kanehira s. n., 8 Nov 1923²⁾ (TAIF 24879).

¹⁾ Without Latin Description.

²⁾ Nov 1923 (Kanehira 1936).



Sambucus formosana Nakai var. *arborescens* Kaneh. & Sasaki,¹⁾ Formos. Tr. ed. 2:694. 1936. Syntype. Taiwan, Arisan, Heisyana. R. Kanehira s. n., 8 Nov 1923²⁾ (TAIF 24880).

¹⁾ Without Latin Description.

²⁾ Nov 1923 (Kanehira 1936).



Viburnum integrifolium Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):132. 1911. Syntype. Taiwan, Byoritu, Taiko. T. Kawakami, B. Hayata et U. Mori 55, 1 Aug 1908¹⁾ (TAIF 24929).

¹⁾ Leg. T. Kawakami et U. Mori, Aug 1908, (No. 55) (Hayata 1911).



Viburnum integrifolium Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):132. 1911. Syntype. Taiwan, Taiko. T. Kawakami et B. Hayata 87, 1 Aug 1908¹⁾ (TAIF 24930).

¹⁾ Leg. T. Kawakami et U. Mori, Aug 1908, (No. 87) (Hayata 1911).



Viburnum integrifolium Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):132. 1911. Isolectotype. Taiwan, in monte Morrison, ad 7,000 ped. alt. T. Kawakami et U. Mori 2061, 25 Oct 1906¹⁾ (TAIF 24933²⁾).

¹⁾ Oct 1906 (Hayata 1911).

²⁾ A duplicate in TI was treated as a lectotype (Hara & Ohba 1983, pl. 129).



Viburnum luzonicum Rolfe var. *daibuensis* Kaneh. & Sasaki, Cat. Governm. Herb. 485. 1930a. *nomen nudum*. Syntype. Taiwan, Bansyoryo, Horaikei. U. Mori s. n., 18 Nov 1907¹⁾ (TAIF 24973).
¹⁾ Collection date unrecorded (Sasaki 1930a).

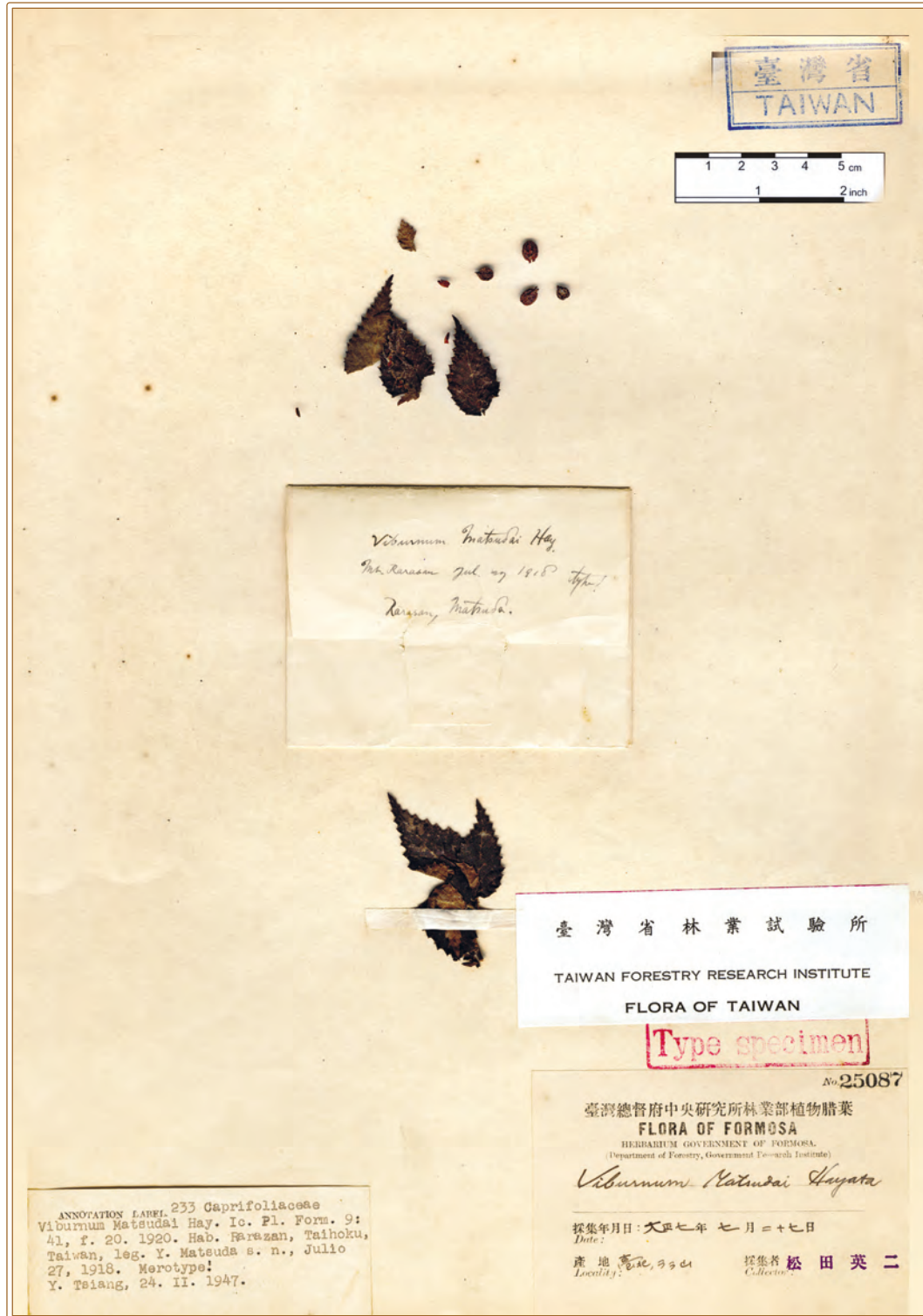


Viburnum luzonicum Rolfe var. *daibuense* Kaneh. & Sasaki, Cat. Governm. Herb. 485. 1930a. *nomen nudum*. Syntype. Taiwan, Mt. Daibu. *E. Matsuda* s. n., 23 May 1918¹⁾ (TAIF 24974).

¹⁾ Collection date unrecorded (Sasaki 1930a).



Viburnum luzonicum Rolfe var. *daibuense* Kaneh. & Sasaki, Cat. Governm. Herb. 485. 1930a. *nomen nudum*. Syntype. Taiwan, Takao, Mt. Daibu. E. Matsuda s. n., 23 May 1918¹⁾ (TAIF 24975).
¹⁾ Collection date unrecorded (Sasaki 1930a).



Viburnum matsudai Hayata, Icon. Pl. Formos. 9:41, f. 20. 1920. Isotype (part). Taiwan, Taihoku, Rarazan. *Y. Matsuda* s. n., 27 July 1918¹⁾ (TAIF 25087²⁾).

¹⁾ July 1918 (Hayata 1920).

²⁾ A duplicate in TI was treated as a holotype (Hara & Ohba 1983, pl. 134).



Viburnum morrisonense Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):133. 1911. Isotype. Taiwan, in monte Morrison, ad 10,000 ped. alt.¹⁾ T. Kawakami et U. Mori 2115, 18 Nov 1906²⁾ (TAIF 25027³⁾).

¹⁾ in monte Morrison;

²⁾ Nov 1905 (Hayata 1911).

³⁾ A duplicate in TI was treated as a holotype (Hara & Ohba 1983, pl. 136).



Viburnum morrisonense Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):133. 1911. Isotype. Taiwan, in monte Morrison, ad 10,000 ped. alt.¹⁾ T. Kawakami et U. Mori 2115, 18 Nov 1906²⁾ (TAIF 25028³⁾).

¹⁾ in monte Morrison;

²⁾ Nov 1905 (Hayata 1911).

³⁾ A duplicate in TI was treated as a holotype (Hara & Ohba 1983, pl. 136).



Viburnum morrisonense Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):133. 1911. Type. Taiwan, in monte Morrison, ad 10,000 ped. alt.¹⁾ *T. Kawakami et U. Mori 2115*, 18 Nov 1906²⁾ (TAIF 25029³⁾).
¹⁾ in monte Morrison;
²⁾ Nov 1905 (Hayata 1911).
³⁾ A duplicate in TI was treated as a holotype (Hara & Ohba 1983, *pl. 136*).



Viburnum parvifolium Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):134. 1911. Type. Taiwan, in monte Morrison, ad 10,000 ped. alt.¹⁾ T. Kawakami et U. Mori 2116, 18 Nov 1906²⁾ (TAIF 25038).

¹⁾ in monte Morrison;

²⁾ Nov 1906 (Hayata 1911).



Viburnum taihasense Hayata, Icon. Pl. Formos. 9:45, f. 22. 1920. Type (part). Taiwan, Taihasenzan.¹⁾ T. Ito s. n., June 1915 (TAIF 25022).

¹⁾ Taihasenzan, ad 10,000 ped. alt. (Hayata 1920).



Viburnum taitoense Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):136. 1911. Type. Taiwan, Taito, Daishinzan, ad 7,000 ped. alt.¹⁾ U. Mori 4546, 17 Jan 1908²⁾ (TAIF 25059).

¹⁾ Taito: Daishinzan;

²⁾ Leg. T. Kawakami et U. Mori, Jan 1908, (No. 4546) (Hayata 1911).



ANNOTATION LABEL 233 Caprifoliaceae
Viburnum taiwanianum Hay. Mat. Fl. Form.
 137. 1911. Hab. Nanto, Shojodaizan,
 Taiwan, leg. T. Kawakami et U. Mori
 1117, Aug. 12, 1906.
 Topotype: Y. Tsaiang, 25. II. 1947.

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 Type specimen 25063
 臺灣總督府殖產局植物腊葉 1117,
Viburnum taiwanianum Hay.
Viburnum taiwanianum Hay.
 學名: *Viburnum taiwanianum* Hay.
 和名: 忍冬
 採集年月: 明治三十二年八月十二日
 採集者: 丹土 謙一
 產地: 南投 守城大山

Viburnum taiwanianum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):137. 1911. Syntype. Taiwan, Nanto, Shojodaizan. *U. Mori* 1119, 12 Aug 1906¹⁾ (TAIF 25063).

¹⁾ Leg. T. Kawakami et U. Mori, (No. 1119); collection date unrecorded (Hayata 1911).



Viburnum taiwanianum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):137. 1911. Syntype. Taiwan, Randaizan. T. Kawakami, B. Hayata et U. Mori 7033, 9 Aug 1908¹⁾ (TAIF 25064).

¹⁾ Leg. U. Mori, (No. 7033); collection date unrecorded (Hayata 1911).



Viburnum taiwanianum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):137. 1911. Isolectotype. Taiwan, in monte Morrison, ad 6,000 ped. alt. T. Kawakami et U. Mori 1720, 17 Oct 1906¹⁾ (TAIF 25065²⁾).

¹⁾ Oct 1906 (Hayata 1911).

²⁾ A duplicate in TI was treated as a lectotype (Hara & Ohba 1983, pl. 146).



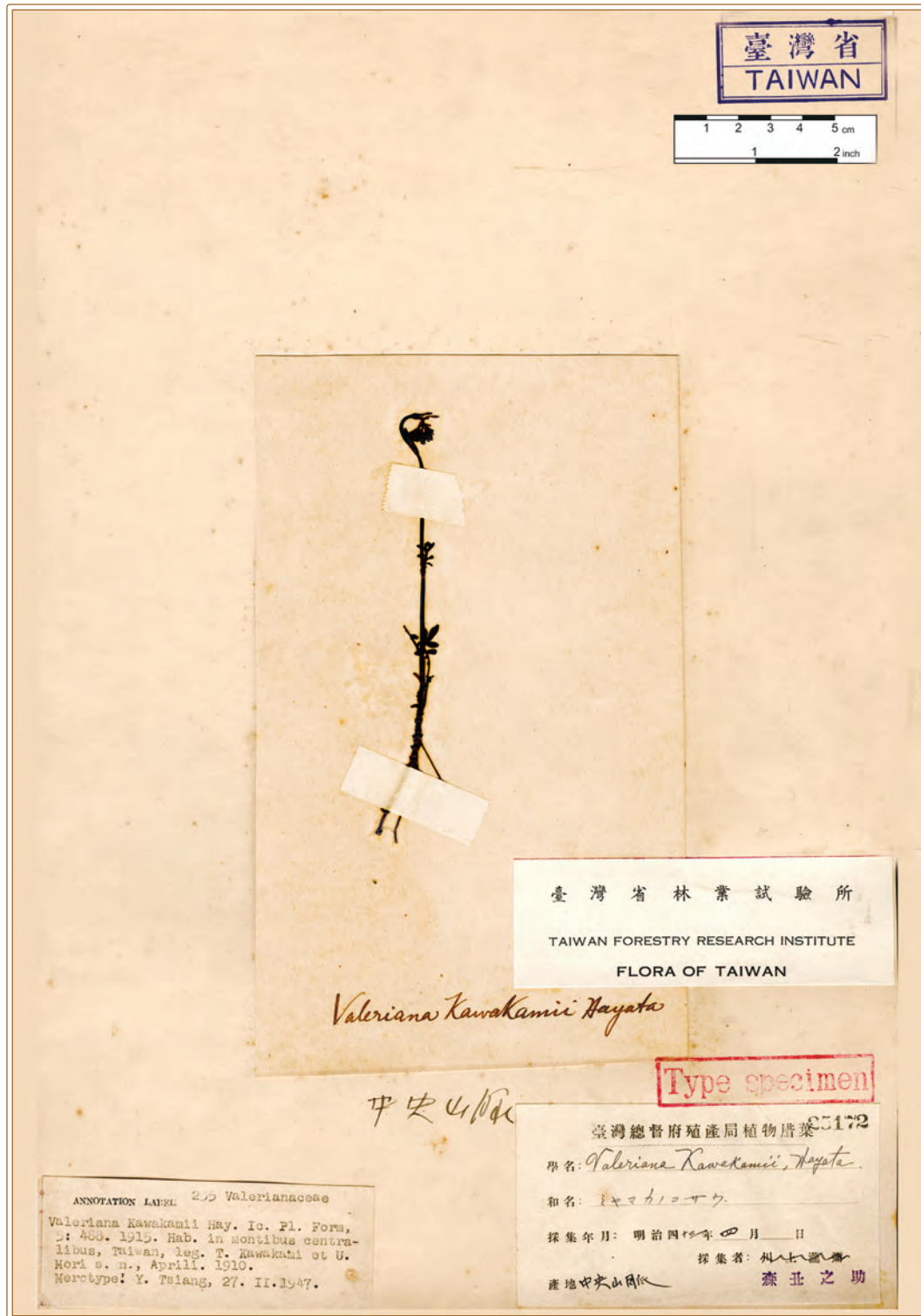
Viburnum taiwanianum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):137. 1911. Isolectotype. Taiwan, in monte Morrison, ad 6,000 ped. alt. T. Kawakami et U. Mori 1720, 17 Oct 1906¹⁾ (TAIF 25066²⁾).

¹⁾ Oct 1906 (Hayata 1911).

²⁾ A duplicate in TI was treated as a lectotype (Hara & Ohba 1983, pl. 146).

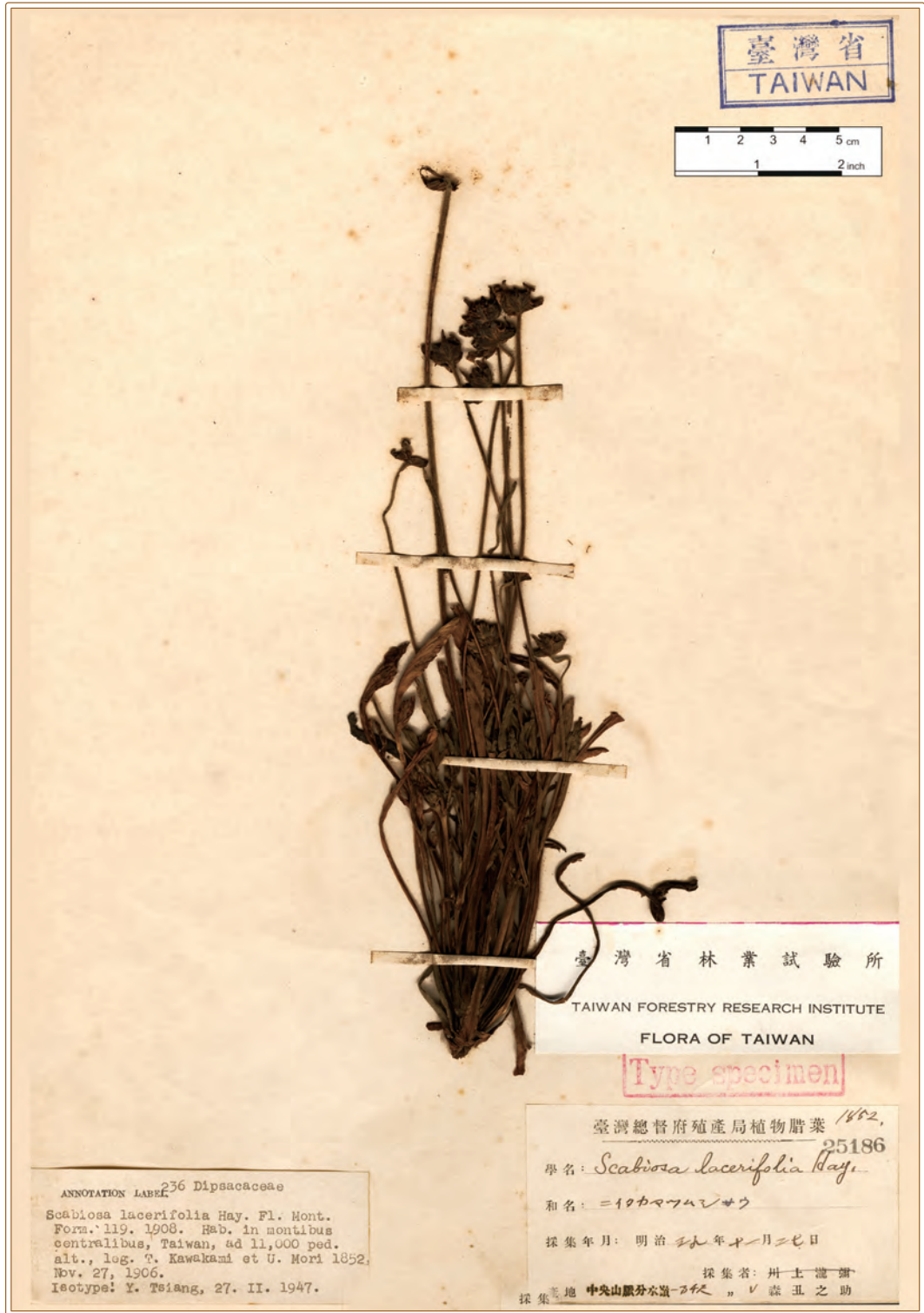


Patrinia glabrifolia Yamam. & Sasaki, Trans. Nat. Hist. Soc. Formos. 19(100):106. 1929. Type. Taiwan, Kwarenko, Naitaroko. *E. Matsuda s. n.*, 10 Aug 1918¹⁾ (TAIF 213703).
¹⁾ Aug 1918 (Yamamoto 1929).



Valeriana kawakamii Hayata, Icon. Pl. Formos. 5:82, t. 8. 1915. Type. Taiwan, in montibus centralibus. *U. Mori* s. n.,¹⁾ Apr 1910 (TAIF 25172).

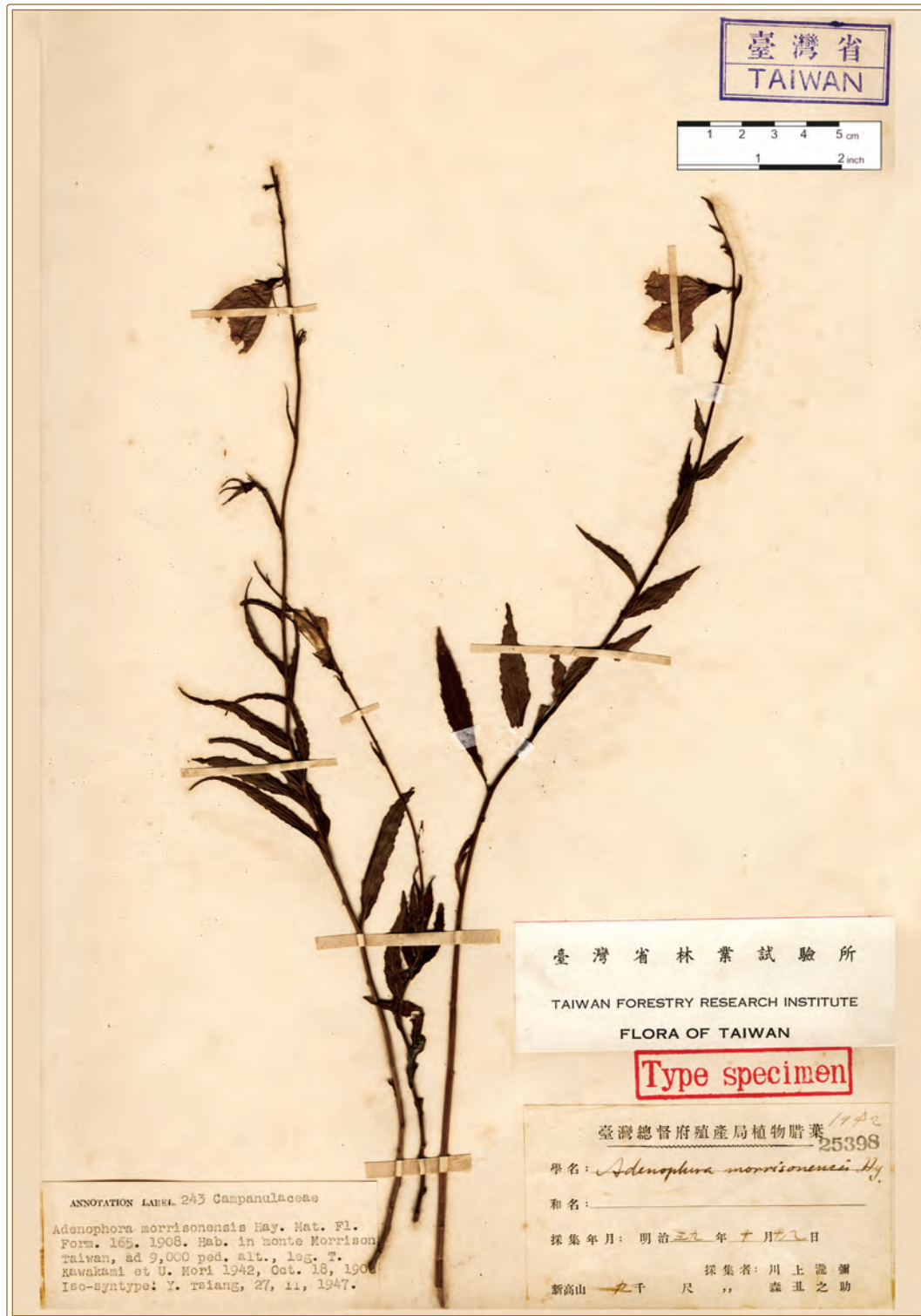
¹⁾ Leg. T. Kawakami et U. Mori (Hayata 1915).



Scabiosa lacerifolia Hayata, Bot. Mag. Tokyo 20:16. 1906; J. Coll. Sci. Imp. Univ. Tokyo 25(19):119. 1908. Type.¹⁾ Taiwan, in montibus centralibus, ad 11,000 ped. alt. U. Mori 1852, 27 Nov 1906²⁾ (TAIF 25186).

¹⁾ Cited in Hayata (1908).

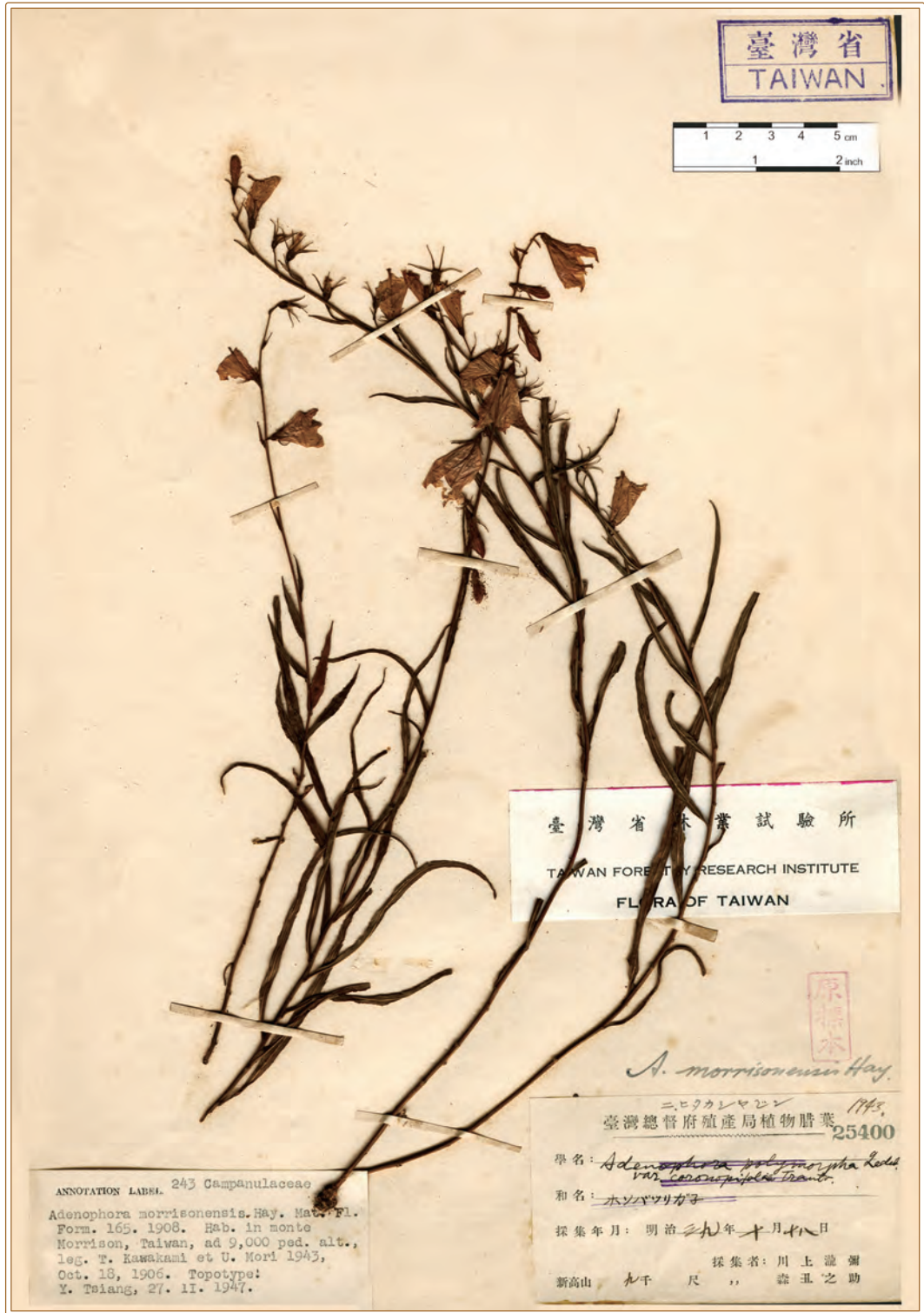
²⁾ Leg. T. Kawakami et U. Mori, Nov 1906, (No. 1852) (Hayata 1908).



Adenophora morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):165. 1911. Syntype. Taiwan, in monte Morrison, ad 9,000 ped. alt.¹⁾ T. Kawakami et U. Mori 1942, 18 Oct 1906²⁾ (TAIF 25398).

¹⁾ in monte Morrison;

²⁾ Collection date unrecorded (Hayata 1911).

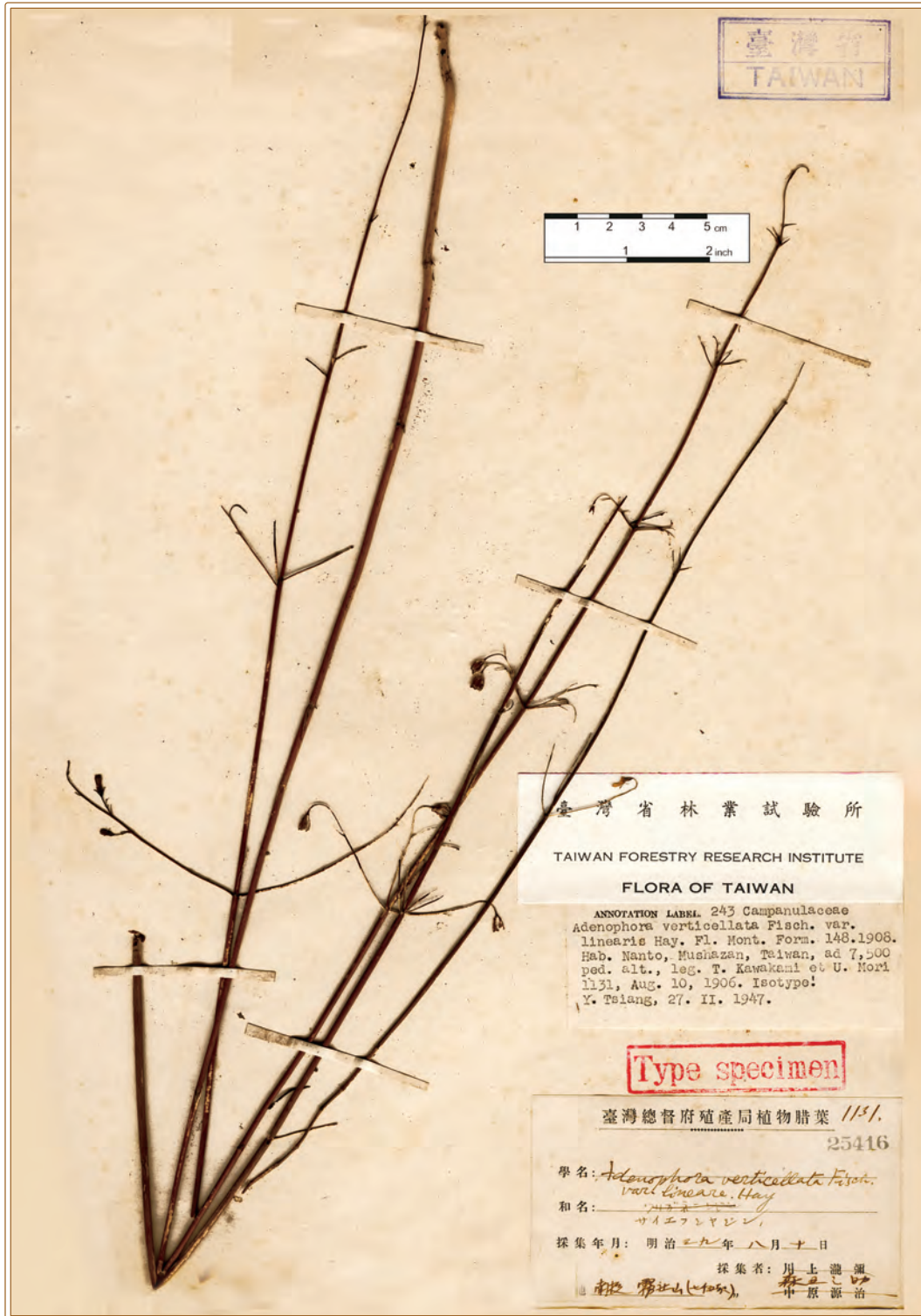


Adenophora morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):165. 1911. Topotype.¹⁾ Taiwan, in monte Morrison, ad 9,000 ped. alt.²⁾ T. Kawakami et U. Mori 1943, 18 Oct 1906³⁾ (TAIF 25400).

¹⁾ Sasaki (1930a) listed it as a type, and Y. Tsiang treated it as a topotype.

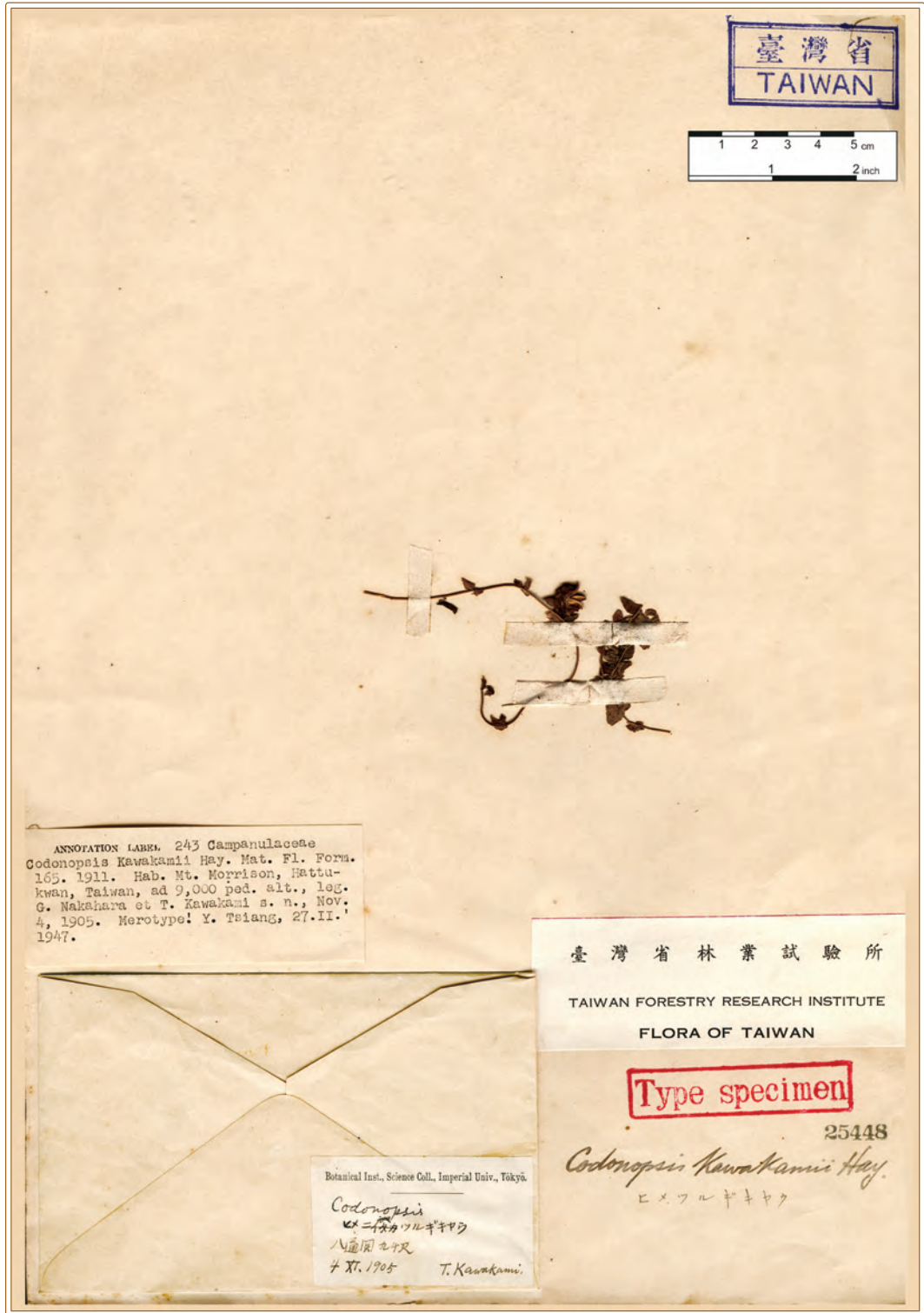
²⁾ in monte Morrison;

³⁾ Leg. T. Kawakami et U. Mori, (Nos. 1942 et 2290); collection date unrecorded (Hayata 1911).



Adenophora verticillata Fisch. var. *linearis* Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):148. 1908. Type. Taiwan, Nanto, Mushasan, ad 7,500 ped. alt. U. Mori 1131, 10 Aug 1906¹⁾ (TAIF 25416).

¹⁾ Leg. T. Kawakami et U. Mori, Aug 1906, (No. 1131) (Hayata 1908).



ANNOTATION LABEL. 243 Campanulaceae
Codonopsis Kawakamii Hay. Mat. Fl. Form.
 165. 1911. Hab. Mt. Morrison, Hattukwan,
 Taiwan, ad 9,000 ped. alt., leg.
 G. Nakahara et T. Kawakami s. n., Nov.
 4, 1905. Herotype: Y. Tsiang, 27.II.
 1947.

Botanical Inst., Science Coll., Imperial Univ., Tokyo.
Codonopsis
 二葉カワカミキヤク
 八通同ニヤク
 4 Nov. 1905 T. Kawakami.

臺灣省林業試驗所
 TAIWAN FORESTRY RESEARCH INSTITUTE
 FLORA OF TAIWAN
Type specimen
 25448
Codonopsis Kawakamii Hay.
 二葉カワカミキヤク

Codonopsis kawakamii Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):165. 1911. Type.¹⁾ Taiwan, Hattukwan, ad 9,000 ped. alt.²⁾ *T. Kawakami* s. n., 4 Nov 1905³⁾ (TAIF 25448).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Mt. Morrison;

³⁾ Leg. G. Nakahara et T. Kawakami, Nov 1905 (Hayata 1911).



Scaevola frutescens Krause var. *kelungensis* Kaneh. & Sasaki, Cat. Governm. Herb. 496. 1930a. nomen nudum. Type. Taiwan, Kiirun. S. Sasaki s. n., 31 July 1927¹⁾ (TAIF 21581 a²⁾).

¹⁾ Collection date unrecorded (Sasaki 1930a).

²⁾ "a" was added to distinguish to other duplicates.



ANNOTATION LABEL 245 Goodeniaceae
Scaevola frutescens (Mill.) Krause var.
kelungensis Kaneh. et Sas. in Sas. Cat.
 Governm. Herb. 496. 1930, nomen nudum.
 Hab. Kiirun, Taiwan, leg. S. Sasaki
 s. n., hb. no. 21581, Julio 31, 1927.
 Lectotype: γ. Tsiang, 27. ii. 1947.

臺灣省林業試驗所
 TAIWAN FORESTRY RESEARCH INSTITUTE
 FLORA OF TAIWAN

Type specimen

No. 21581

臺灣總督府中央研究所林業部植物腊葉
 FLORA OF FORMOSA
 GOVERNMENT HERBARIUM OF FORMOSA, JAPAN.
 (Department of Forestry, Government Research Institute)
Scaevola frutescens (Mill.) Krause
 var. *kelungensis* Kaneh. et Sasaki
 採集年月日: 昭和二年七月三十一日
 Date:
 產地 基隆 採集者 佐々木常一
 Locality: Keelung Co. H.

Scaevola frutescens Krause var. *kelungensis* Kaneh. & Sasaki, Cat. Governm. Herb. 496. 1930a. *nomen nudum*. Type. Taiwan, Kiirun. S. Sasaki s. n., 31 July 1927¹⁾ (TAIF 21581 b²⁾).

¹⁾ Collection date unrecorded (Sasaki 1930a).

²⁾ "b" was added to distinguish to other duplicates.



Ainsliaea kawakamii Hayata, Icon. Pl. Formos. 8:72. 1919. Type.¹⁾ *s. loco.*²⁾ Collector unknown, *s. d.*³⁾ (TAIF 25593).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Loco non indicato;

³⁾ Leg. *T. Kawakami*; collection date unrecorded (Hayata 1919).



Ainsliaea macroclinioides Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):141, pl. 22. 1908. Syntype. Kagi, Tappansha. T. Kawakami et U. Mori 1971, 9 Oct 1906¹⁾ (TAIF 25597).

¹⁾ Oct 1906 (Hayata 1908).



Ainsliaea secundiflora Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):162. 1911. Type.¹⁾ Taiwan, Koshun, Botanroshe. *G. Nakahara s. n.*,²⁾ Dec 1906 (TAIF 25616).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. *G. Nakahara*, (No. 922) (Hayata 1911).



Ainsliaea secundiflora Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):162. 1911. Type. Taiwan, Koshun, Botanroshia. G. Nakahara 922, Dec 1906 (TAIF 25617).



Ainsliaea secundiflora Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):162. 1911. Type.¹⁾ Taiwan, Koshun, Botanrosya. *G. Nakahara s. n.*,²⁾ Dec 1906 (TAIF 25618).

¹⁾ Sasaki (1930a) listed it as a type.

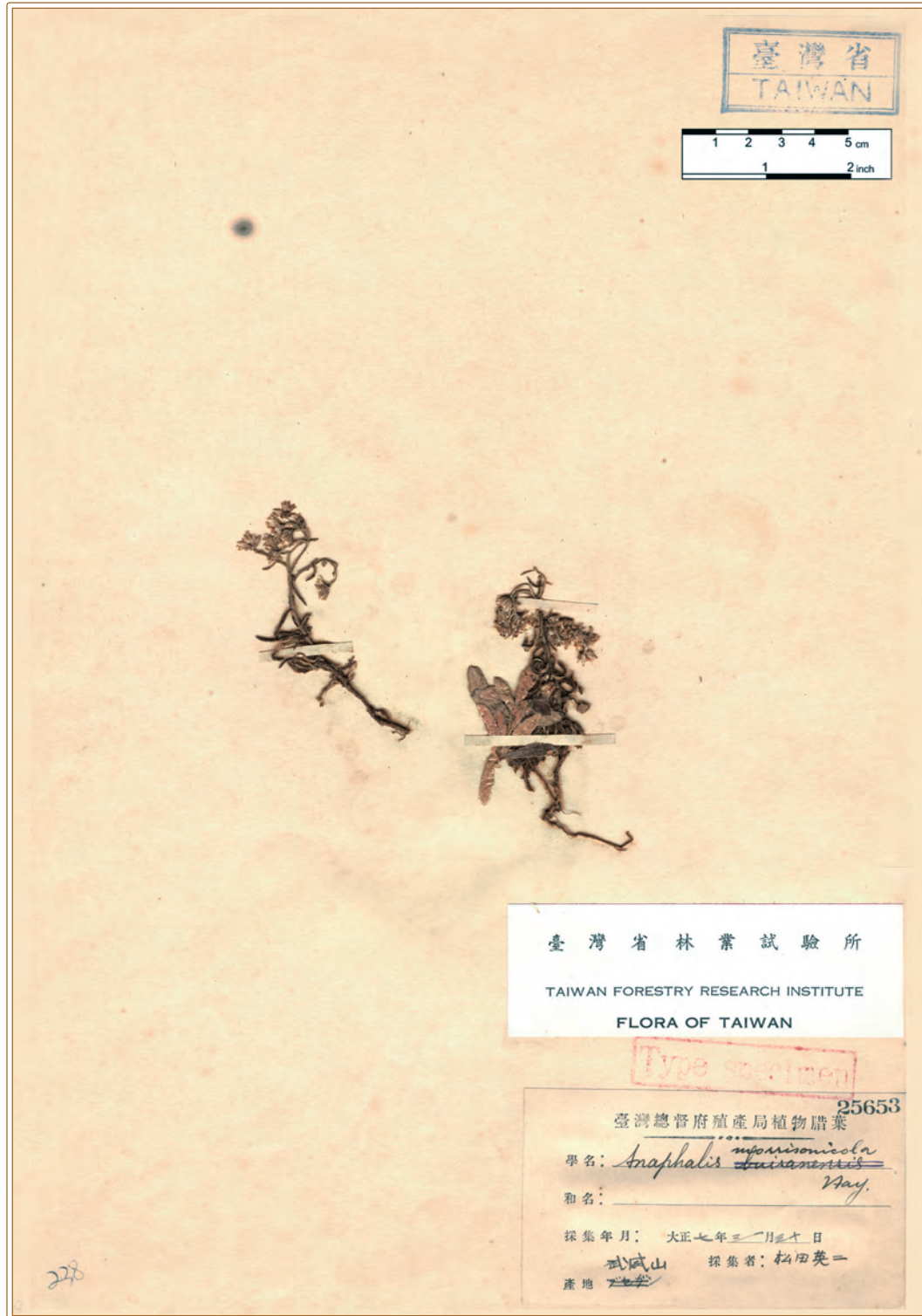
²⁾ Leg. *G. Nakahara*, (No. 922) (Hayata 1911).



Ainsliaea secundiflora Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):162. 1911. Type.¹⁾ Taiwan, Koshun, Botanrosya. G. Nakahara s. n.,²⁾ Dec 1906 (TAIF 25619).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. G. Nakahara, (No. 922) (Hayata 1911).



Anaphalis buisanensis Hayata, Icon. Pl. Formos. 8:57. 1919. Type.¹⁾ Taiwan, Buyesan. *E. Matsuda* s. n., 30 Mar 1918²⁾ (TAIF 25653).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1919).



Anaphalis buisanensis Hayata, Icon. Pl. Formos. 8:57. 1919. Type.¹⁾ Taiwan, Buyesan. *E. Matsuda s. n.*, 30 Mar 1918²⁾ (TAIF 25654).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1919).



Anaphalis morrisonicola Hayata, Icon. Pl. Formos. 8:56. 1919. Type.¹⁾ Taiwan, Mt. Morrison, ad 10,000 ped. alt.²⁾ T. Kawakami et U. Mori 2277, 19 Oct 1906³⁾ (TAIF 25642).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Mt. Morrison;

³⁾ Collector and collection date unrecorded (Hayata 1919).



ANNOTATION LABEL. 238 Compositae
Anaphalis contorta (Don) Hook. f. var.
morrisonicola (Hay.) Yam. in Journ.
 Soc. Trop. Agr. 8: 265. 1936; (A. m.
 Hay. Ic. 8: 56. 1919) Hab. Mt. Morrison
 Taiwan, leg. T. Kawakami et U. Mori
 2277, Oct. 19, 1906. Isotype of A. m.
 Hay.

臺灣 農業 試驗 所

TAIWAN FORESTRY RESEARCH INSTITUTE

FLORA OF TAIWAN

Type specimen

Anaphalis morrisonicola Hay.

臺灣總督府殖產局植物標本 25643

學名: *Anaphalis margaritacea*

和名: *キリボノヤマハハコ*

採集年月: 明治三十九年十月十九日

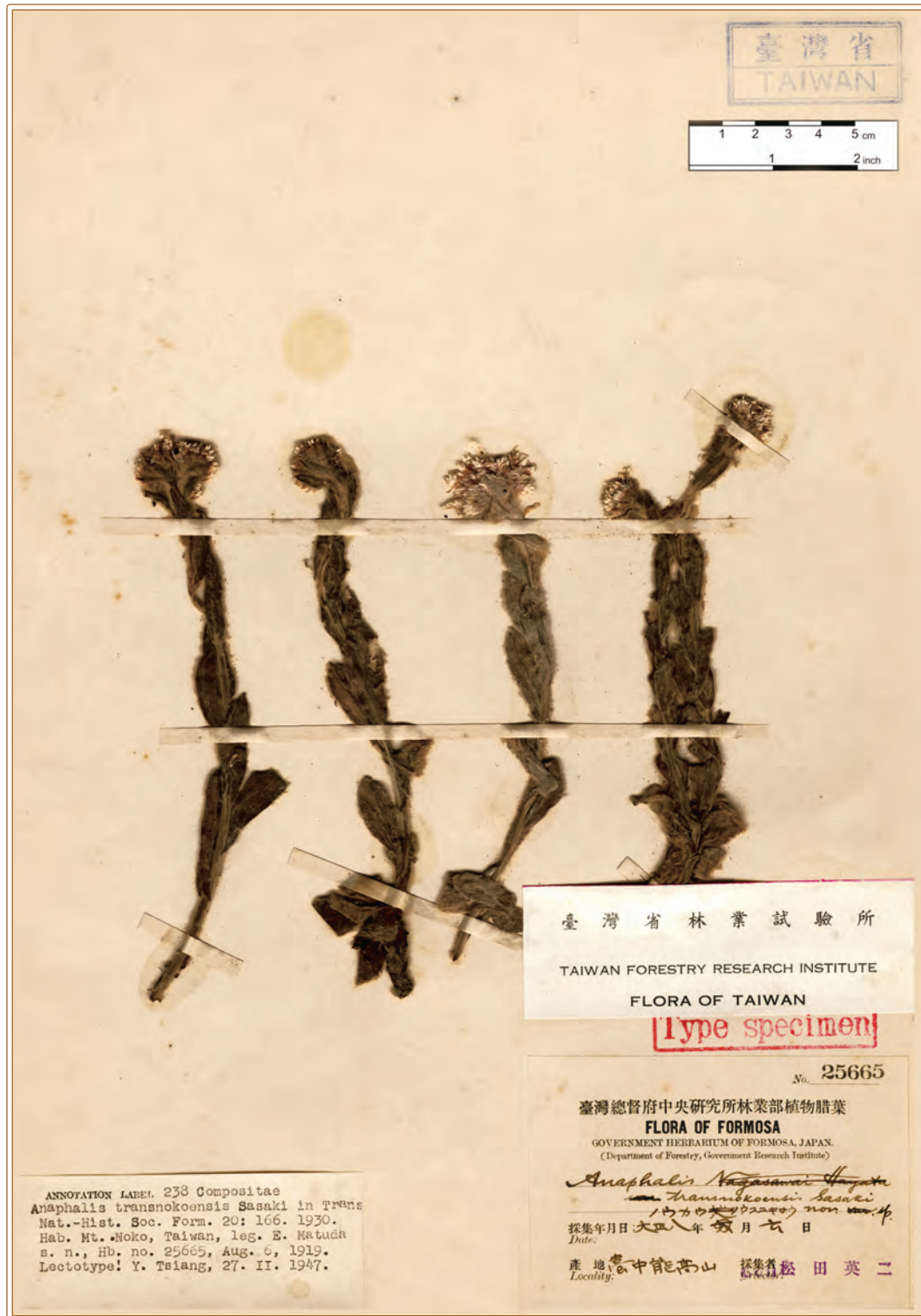
採集者: 川上瀧彌
 新高山 一尺 森丑之助

Anaphalis morrisonicola Hayata, Icon. Pl. Formos. 8:56. 1919. Type.¹⁾ Taiwan, Mt. Morrison, ad 10,000 ped. alt.²⁾ T. Kawakami et U. Mori 2277, 19 Oct 1906³⁾ (TAIF 25643).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Mt. Morrison;

³⁾ Collector and collection date unrecorded (Hayata 1919).

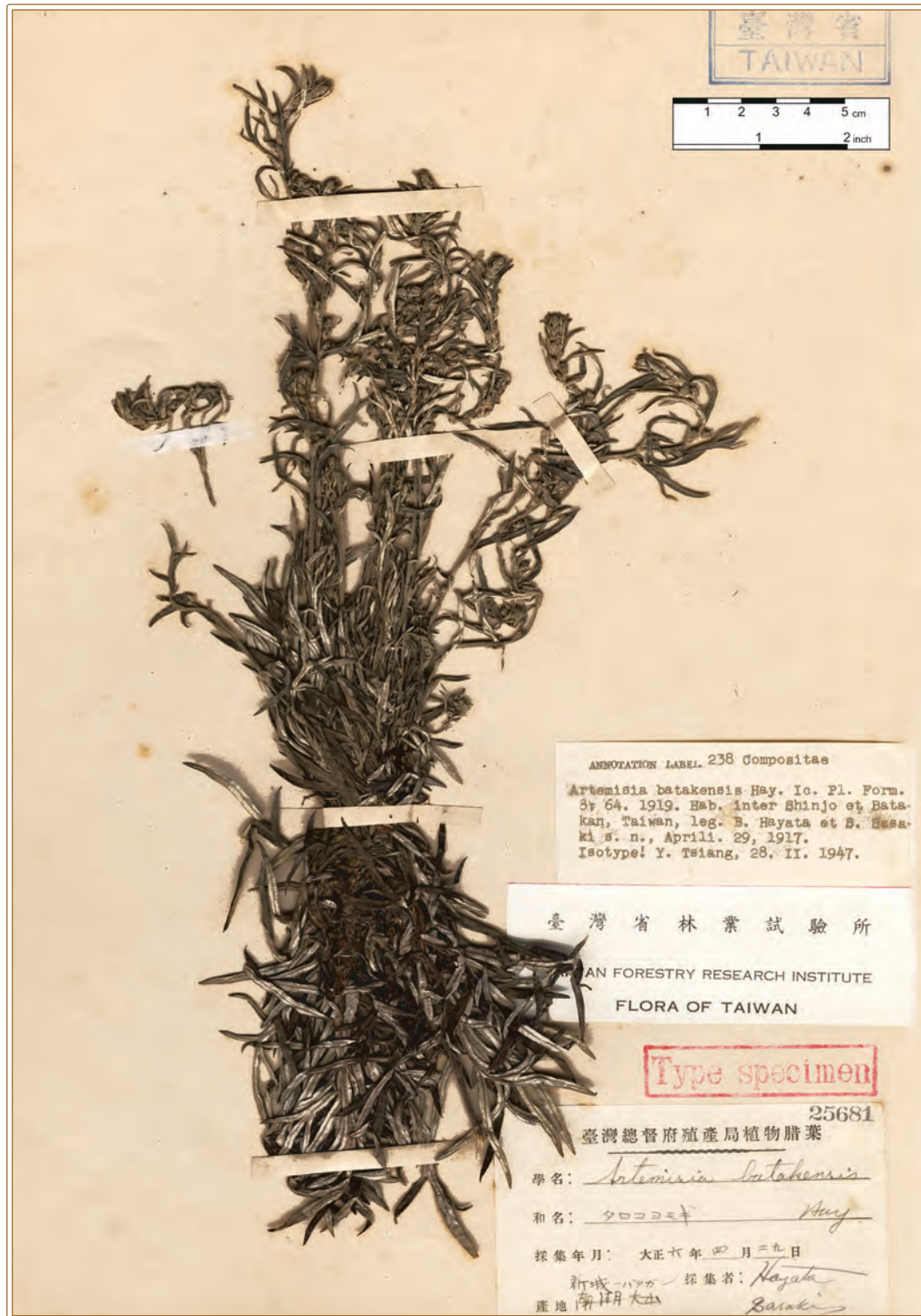


Anaphalis transnokoensis Sasaki, Trans. Nat. Hist. Soc. Formos. 20(108):166. 1930b. Syntype. Taiwan, Taichun, Mt. Noko. E. Matsuda s. n., 6 Aug 1919 (TAIF 25665).



Anaphalis transnokoensis Sasaki, Trans. Nat. Hist. Soc. Formos. 20(108):166. 1930b. Syntype. Taiwan, Mt. South Peak of Kiraisyu-zan.¹⁾ S. Sasaki s. n., 24 Aug 1929 (TAIF 28509).

¹⁾ Mt. South Peak of Kiraisyu-zan, 10,000 ft. above the sea level (Sasaki 1930b).



Artemisia batakensis Hayata, Icon. Pl. Formos. 8:64. 1919. Type. Taiwan, inter Shinjo et Batakan. B. Hayata et S. Sasaki s. n., 29 Apr 1917¹⁾ (TAIF 25681).

¹⁾ Apr 1917 (Hayata 1919).

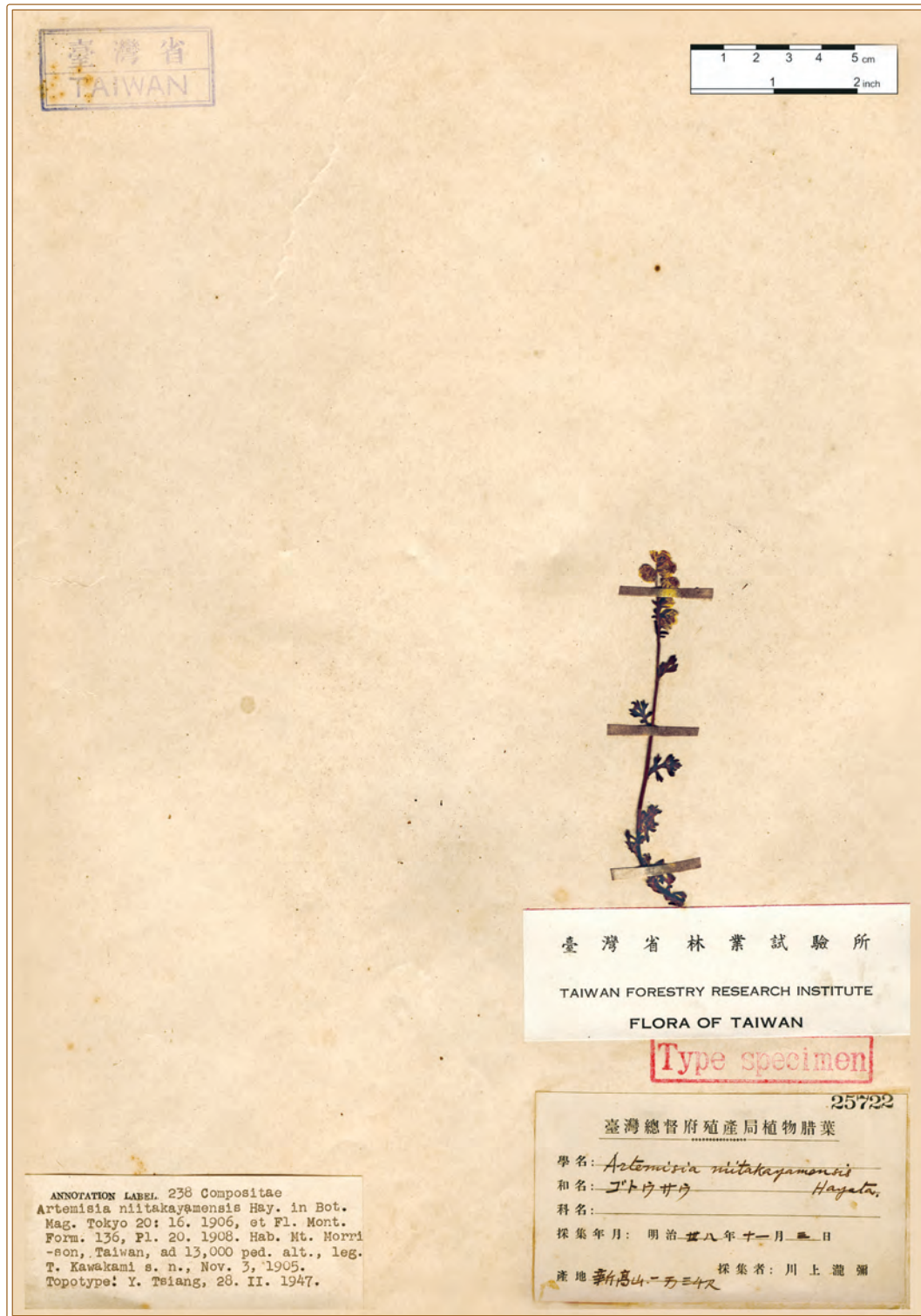


Artemisia morrisonensis Hayata, Icon. Pl. Formos. 8:63. 1919. Syntype.¹⁾ Taiwan, Morrison, ad 10,000 ped. alt.²⁾ T. Kawakami et U. Mori 2043, 19 Oct 1906³⁾ (TAIF 25718).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Morrison;

³⁾ Collector and collection date unrecorded (Hayata 1919).



ANNOTATION LABEL. 238 Compositae
Artemisia nitakayamensis Hay. in Bot.
 Mag. Tokyo 20: 16. 1906, et Fl. Mont.
 Form. 136, Pl. 20. 1908. Hab. Mt. Morri-
 -son, Taiwan, ad 13,000 ped. alt., leg.
 T. Kawakami s. n., Nov. 3, 1905.
 Topotype: Y. Tsiang, 28. II. 1947.

臺灣省林業試驗所
 TAIWAN FORESTRY RESEARCH INSTITUTE
 FLORA OF TAIWAN

Type specimen

25722

臺灣總督府殖產局植物腊葉

學名: *Artemisia nitakayamensis*
 和名: *ゴトウサウ* Hayata.
 科名:

採集年月: 明治廿八年十一月三日

產地: 新竹高山一五三ノ又 採集者: 川上瀧彌

Artemisia nitakayamense Hayata, Bot. Mag. Tokyo 20:16. 1906. Type.¹⁾ Taiwan, in Monte Morrison, ad 13,000 ped. alt.²⁾ T. Kawakami s. n.,³⁾ 3 Nov 1905 (TAIF 25722).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ in Monte Morrison, ad 13,094 ped.;

³⁾ Leg. S. Nagasawa (No. 621.) T. Kawakami et G. Nakahara (Hayata 1906).



Artemisia niitakayamense Hayata, Bot. Mag. Tokyo 20:16. 1906. Topotype.¹⁾ Taiwan, in Monte Morrison, ad 13,000 ped. alt.²⁾ T. Kawakami et U. Mori 2282, 20 Oct 1906³⁾ (TAIF 25723).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ in Monte Morrison, ad 13,094 ped.;

³⁾ Leg. S. Nagasawa (No. 621.) T. Kawakami et G. Nakahara, 3 Nov 1905 (Hayata 1906).



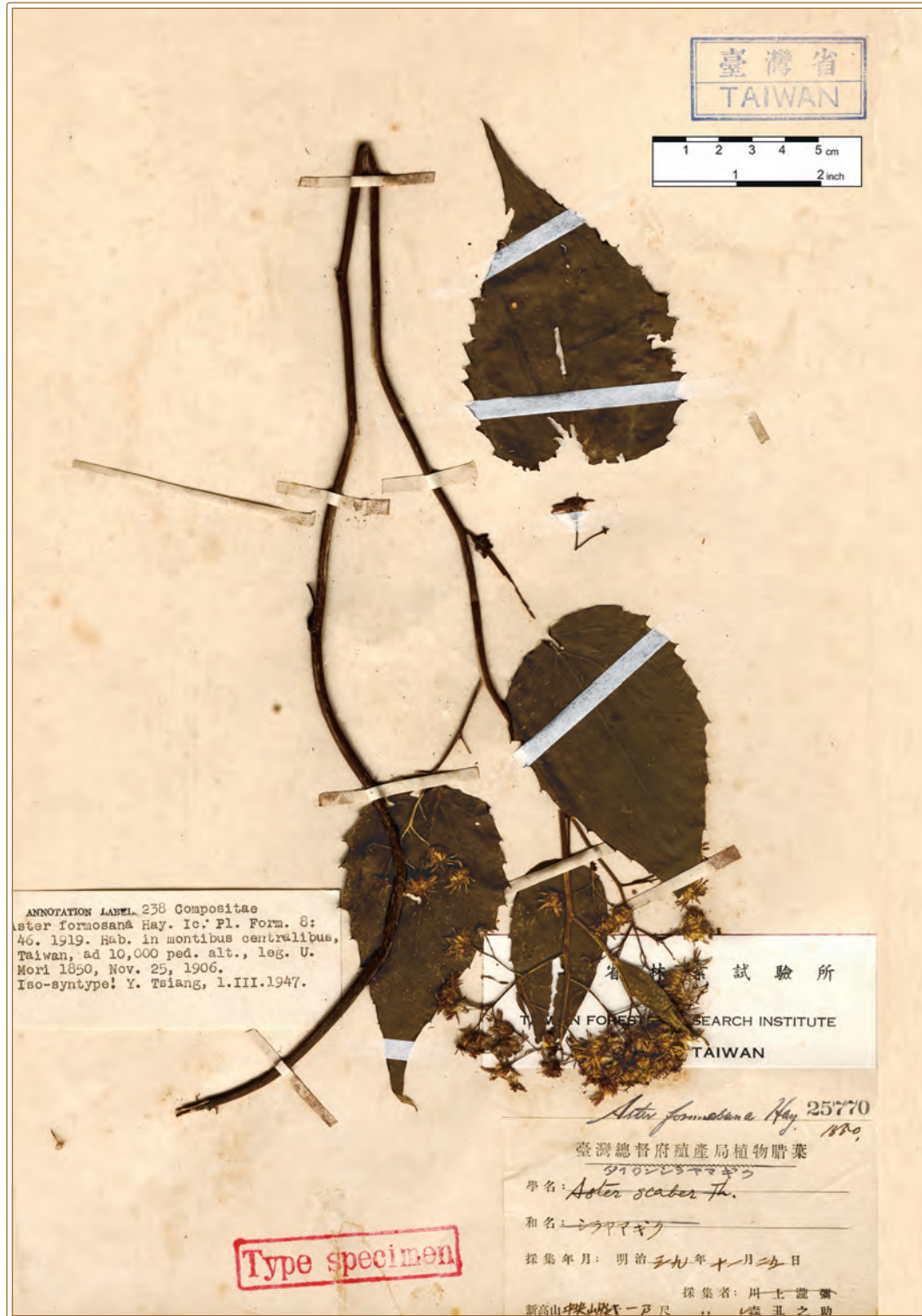
Artemisia oligocarpa Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):137, pl. 21. 1908. Syntype. Taiwan, in monte Morrison, ad 13,000 ped. alt.¹⁾ T. Kawakami et U. Mori 2140, 18 Nov 1906²⁾ (TAIF 25727).

¹⁾ in monte Morrison, ad 12,000 ped. alt.;

²⁾ Nov 1906 (Hayata 1906).



Artemisia somai Hayata, Icon. Pl. Formos. 8:64, pl. 8. 1919. Type. Taiwan, Arisan, Tozan. *T. Soma* s. n., Dec 1915 (TAIF 25730).



Aster formosana Hayata, Icon. Pl. Formos. 8:46. 1919. Type.¹⁾ Taiwan, Morrison, in Montibus Centralibus, ad 10,000 ped. alt. U. Mori 1850, 25 Nov 1906 (TAIF 25770).

¹⁾ Hayata (1919) did not cite any specimen; but Sasaki (1930a) listed it as a type.



Aster formosana Hayata, Icon. Pl. Formos. 8:46. 1919. Type.¹⁾ Taiwan, in Montibus Centralibus, ad 9,000 ped. alt. U. Mori s. n., 12 Dec 1908 (TAIF 25771).

¹⁾ Hayata (1919) did not cite any specimen; but Sasaki (1930a) listed it as a type.



Aster formosana Hayata, Icon. Pl. Formos. 8:46. 1919. Type.¹⁾ Taiwan, Morrison, ad 7,500 ped. alt. S. Sasaki s. n., 26 Oct 1909 (TAIF 25773).

¹⁾ Hayata (1919) did not cite any specimen; but Sasaki (1930a) listed it as a type.



ANNOTATION LABEL, 236 Compositae
Aster morrisonensis Hay. Ic. Pl. Form.
 8: 48. 1919. Hab. in monte Morrison,
 Taiwan, ad 11,000 ped. alt., leg. S.
 Sasaki s. n., Oct. 9, 1909.
 Isotype: Y. Tsiang, l. III. 1947.

Aster morrisonensis Hay.

臺灣總督府殖產局植物腊葉
 學名: *Aster truncatus* Roth.
 和名: ヤマアザミ ニヒクヤマダノギク
 採集年月: 明治四十年十月九日
 採集者: 川上瀧雄
 産地: 新竹山一ノノ 佐々木露一

Aster morrisonensis Hayata, Icon. Pl. Formos. 8:48. 1919. Type. Taiwan, Monte Morrison, ad 11,000 ped. alt. S. Sasaki s. n., 9 Oct 1909¹⁾ (TAIF 25809).

¹⁾ Oct 1909 (Hayata 1919).



Aster rufopappus Hayata, Icon. Pl. Formos. 8:47, f. 26-3. 1919. Type.¹⁾ Taiwan, Byoritu, Sansaho. S. Sasaki s. n., 30 Apr 1909²⁾ (TAIF 25832).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1919).



Aster scaberrimus Hayata, Icon. Pl. Formos. 8:49. 1919. Type.¹⁾ Taiwan, in Montibus Centralibus, ad 10,000 ped. alt.²⁾ U. Mori 2206, 27 Nov 1906³⁾ (TAIF 25838).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ in Monte Morrison;

³⁾ Leg. T. Kawakami et U. Mori, Oct 1906 (Hayata 1919).



Aster scaberrimus Hayata, Icon. Pl. Formos. 8:49. 1919. Type.¹⁾ Taiwan, in Monte Morrison, ad 8,000 ped. alt.²⁾ T. Kawakami et U. Mori s. n., 16 Nov 1906³⁾ (TAIF 25841).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ in Monte Morrison;

³⁾ Oct 1906 (Hayata 1919).



ANNOTATION LABEL 238 Compositae
Bidens tripartita Linn. var. *shimadai*
 (Hay.) Yam. in Journ. Soc. Trop. Agr. 8:
 271. 1936. (B. S. Hay. Ic. 8: 60, f. 28
 1919) Hab. Shichiseizan, Taiwan, leg. Y.
 Shimada s. n., Sept. 23, 1916.
 Type! Y. Tsiang, l. II. 1947.

臺灣省林業試驗所
 TAIWAN FORESTRY RESEARCH INSTITUTE
 FLORA OF TAIWAN

Type specimen!

No. 25889

臺灣總督府中央研究所林業部植物腊葉
 FLORA OF FORMOSA
 HERBARIUM GOVERNMENT OF FORMOSA
 (Department of Forestry, Government Research Institute)

Bidens shimadai Hayata.

採集年月日: 大正六年九月二十三日
 Date:

產地: 七股山
 Locality:

採集者: 新田忠平
 Collector:

Bidens shimadai Hayata, Icon. Pl. Formos. 8:60, f. 28. 1919. Type (part). Taiwan, Shichiseizan. Y. Shimada s. n., 23 Sept 1916¹⁾ (TAIF 25889).

¹⁾ Sept 1916 (Hayata 1919).



Carpesium acutum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):133. 1908. Syntype. Taiwan, Toroku, Washa. T. Kawakami et U. Mori 1937, 14 Nov 1906¹⁾ (TAIF 26017).

¹⁾ Nov 1906 (Hayata 1908).



Carpesium acutum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):133. 1908. Syntype. Taiwan, in montibus Morrison, ad 8,000 ped. alt. *T. Kawakami et U. Mori* 1991, 18 Oct 1906¹⁾ (TAIF 26018).
¹⁾ Oct 1906 (Hayata 1908).



Chrysanthemum morii Hayata, Icon. Pl. Formos. 8:61. 1919. Type.¹⁾ Taiwan, Naitaroko.²⁾ U. Mori s. n., Nov 1914³⁾ (TAIF 26069).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Taito: Chakan;

³⁾ Jan 1908 (Hayata 1919).



Chrysanthemum morii Hayata, Icon. Pl. Formos. 8:61. 1919. Type.¹⁾ Taiwan, Naitaroko.²⁾ *U. Mori* s. n., Nov 1914³⁾ (TAIF 26070).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Taito: Chakan;

³⁾ Jan 1908 (Hayata 1919).

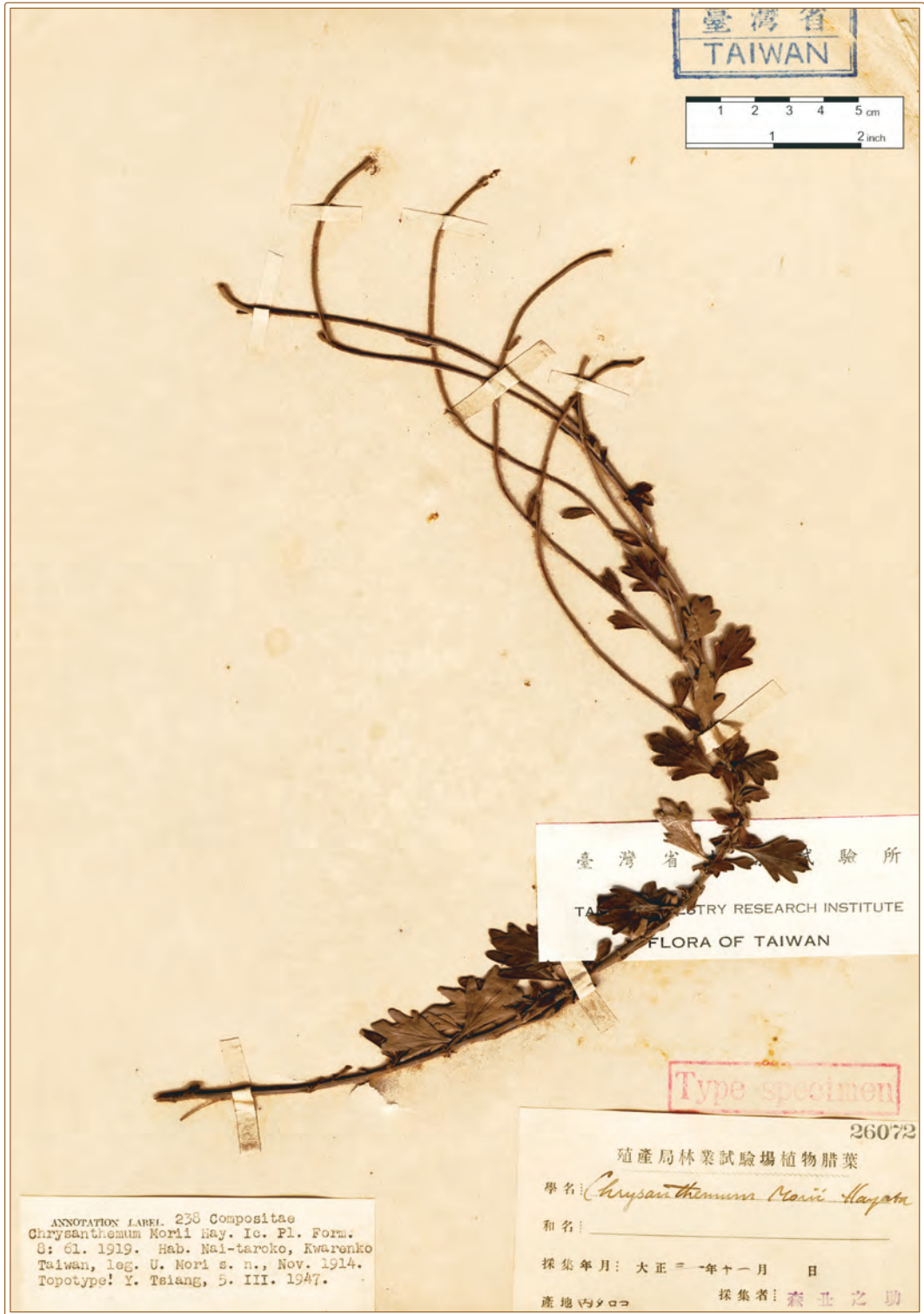


Chrysanthemum morii Hayata, Icon. Pl. Formos. 8:61. 1919. Type.¹⁾ Taiwan, Naitaroko.²⁾ *U. Mori* s. n., Nov 1914³⁾ (TAIF 26071).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Taito: Chakan;

³⁾ Jan 1908 (Hayata 1919).



Chrysanthemum morii Hayata, Icon. Pl. Formos. 8:61. 1919. Type.¹⁾ Taiwan, Naitaroko.²⁾ *U. Mori* s. n., Nov 1914³⁾ (TAIF 26072).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Taito: Chakan;

³⁾ Jan 1908 (Hayata 1919).



Cirsium kawakamii Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):159. 1911. Type. Taiwan, in monte Morrison, ad 10,000 ped. alt.¹⁾ *T. Kawakami et U. Mori* 2279, 20 Oct 1906²⁾ (TAIF 26101).

¹⁾ in monte Morrison;

²⁾ Oct 1905 (Hayata 1911).



ANNOTATION LABEL 238 Compositae
Cirsium morii Hay. Ic. Pl. Form. 8: 70.
 1919. Hab. Chakankei, Taito, Taiwan,
 leg. U. Mori s. n., Jan. 16, 1908.
 Isotype! Y. Tsiang, S. III. 1947.

臺灣省林業試驗所
 TAIWAN FORESTRY RESEARCH INSTITUTE
 FLORA OF TAIWAN
 Type specimen

26112
 臺灣總督府植物腊葉
Cirsium morii Hayata
 採集年月: 1908年一月十七日
 產地: 台東行山溪 採集者: 森田之助

*Cirsium*¹⁾ *morii* Hayata, Icon. Pl. Formos. 8:70. 1919. Type (part). Taiwan, Taito, Chakankei. *U. Mori* s. n., 16 Jan 1908²⁾ (TAIF 26112).
¹⁾ *Cirsium*;
²⁾ Jan 1908 (Hayata 1919).



Crepis formosana Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):163. 1911. Type. Taiwan, Takao, Hoduan.¹⁾ G. Nakahara 825, Feb 1906 (TAIF 26151).

¹⁾ Takao (Hayata 1911).



Erigeron morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):126. 1908. Type.¹⁾ Taiwan, in montis Morrison.²⁾ T. Kawakami et U. Mori s. n., 20 Oct 1906³⁾ (TAIF 26291).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ in summam montis Morrison;

³⁾ Leg. T. Kawakami et U. Mori, Oct 1906, (No. 2247) (Hayata 1908).



Erigeron morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):126. 1908. Type.¹⁾ Taiwan, in montis Morrison, ad 12,000 ped. alt.²⁾ T. Kawakami et U. Mori 2246, 20 Oct 1906³⁾ (TAIF 26292).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ in summam montis Morrison;

³⁾ Leg. T. Kawakami et U. Mori, Oct 1906, (No. 2247) (Hayata 1908).



Eupatorium gracillimum Hayata, Icon. Pl. Formos. 3:124. 1913. Type (part).¹⁾ *s. loco.*²⁾ *B. Hayata s. n.*, 3 June 1912³⁾ (TAIF 26370).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Koshun: Kuraru *et* Kusukusu;

³⁾ Leg. *B. Hayata et S. Sasaki*, June 1912 (Hayata 1913).



Eupatorium quasitripartitum Hayata, Icon. Pl. Formos. 8:44. 1919. Syntype.¹⁾ Taiwan, Taihoku, Hokuto. T. Kawakami et G. Nakahara s. n., Feb 1907²⁾ (TAIF 26332).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1919).



Gnaphalium lineare Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):131, pl. 19. 1908. Syntype. Taiwan, in monte Morrison, 10,000 ped. alt.¹⁾ T. Kawakami et U. Mori 1995, 19 Oct 1906²⁾ (TAIF 26449).

¹⁾ in monte Morrison;

²⁾ Oct 1906 (Hayata 1908).



Gnaphalium morii Hayata, Icon. Pl. Formos. 8:58. 1919. Syntype.¹⁾ Taiwan, Nanto, Toroko-Banti.²⁾

U. Mori s. n., June 1909³⁾ (TAIF 26457).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Taroko;

³⁾ Collection date unrecorded (Hayata 1919).



Gynura flava Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):138. 1908. Syntype. Taiwan, in monte Morrison, ad 6,500 ped. alt. T. Kawakami et U. Mori 2012, 24 Oct 1906¹⁾ (TAIF 99681).

¹⁾ Oct 1906 (Hayata 1908).



Laggera angustifolia Hayata, Icon. Pl. Formos. 8:54. 1919. Syntype.¹⁾ Taiwan, Nanto. T. Kawakami 4886, Nov 1906²⁾ (TAIF 26686).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Collector and collection date unrecorded (Hayata 1919).



Laggeta angustifolia Hayata, Icon. Pl. Formos. 8:54. 1919. Syntype.¹⁾ Taiwan, Niitakayama, ad 10,000 ped. alt.²⁾ T. Kawakami et U. Mori 2114, 20 Nov 1906³⁾ (TAIF 26689).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Niitakayama;

³⁾ Collector and collection date unrecorded (Hayata 1919).



Leontopodium microphyllum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):127, pl. 17. 1908. Type.¹⁾ Taiwan, in monte Morrison, ad 13,000 ped. alt.²⁾ T. Kawakami et U. Mori s. n., 20 Oct 1906³⁾ (TAIF 26701).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ in monte Morrison, ad 12,000 ped. alt.;

³⁾ Leg. T. Kawakami et U. Mori, Oct 1906, (No. 246) (Hayata 1908).



Ligularia nokozeanensis Yamam., Suppl. Icon. Pl. Formos. 4:22. 1928. Type. Taiwan, In monte Nokozean. E. Matsuda s. n., 7 Aug 1919¹⁾ (TAIF 26723).

¹⁾ Aug 1919 (Yamamoto 1928).



Picris morrisonensis Hayata, Icon. Pl. Formos. 8:72, f. 29. 1919. Syntype.¹⁾ Taiwan, in montibus centralibus.²⁾ T. Kawakami et U. Mori 2204, 27 Nov 1906³⁾ (TAIF 26785).

¹⁾ Cited in *Picris hieracioides* auct. non Linn.:Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):43. 1908.

²⁾ in montibus centralibus, ad 10,000 ped. alt.;

³⁾ Dec 1906 (Hayata 1908).



Picris morrisonensis Hayata, Icon. Pl. Formos. 8:72, f. 29. 1919. Syntype.¹⁾ Taiwan, in montibus centralibus, ad 10,000 ped. alt. T. Kawakami et U. Mori 2204, 27 Dec 1906²⁾ (TAIF 26786).

¹⁾ Cited in *Picris hieracioides* auct. non Linn.: Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):43. 1908.

²⁾ Dec 1906 (Hayata 1908).



Picris morrisonensis Hayata, Icon. Pl. Formos. 8:72, f. 29. 1919. Syntype.¹⁾ Taiwan, in Monte Morrison, ad 10,000 ped. alt. *U. Mori* 2294, 25 Nov 1906²⁾ (TAIF 26789).

¹⁾ Cited in *Picris hieracioides* auct. non Linn.:Hayata, J. Coll. Sci. Imp. Univ. Tokyo 25(19):43. 1908.

²⁾ Leg. *T. Kawakami et U. Mori*; Nov 1906, (No. 2294) (Hayata 1908).



Saussurea formosana Hayata, Icon. Pl. Formos. 8:69. 1919. Type.¹⁾ Taiwan, Arisan, Karapin. *S. Sasaki s. n.*, 18 Jan 1912²⁾ (TAIF 26826).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Leg. *B. Hayata*, Jan 1912 (Hayata 1919).



Senecio angustifolius Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):154. 1911. Syntype. Taiwan, in monte Morrison, ad 8,500 ped. alt. T. Kawakami et U. Mori 2072, 18 Oct 1906¹⁾ (TAIF 26848).

¹⁾ Oct 1906 (Hayata 1911).



Senecio angustifolius Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):154. 1911. Syntype. Taiwan, in monte Morrison, ad 8,500 ped. alt. T. Kawakami et U. Mori 2072, 18 Oct 1906¹⁾ (TAIF 26849).
¹⁾ Oct 1906 (Hayata 1911).



Senecio crataegifolia Hayata, Icon. Pl. Formos. 8:67. 1919. Type. Taiwan, Montibus centralibus. U. Mori et S. Kato s. n.,¹⁾ Dec 1909 (TAIF 26852).

¹⁾ Leg. U. Mori et S. Nakai (Hayata 1919).



Senecio kuanshanensis C. I. Peng & S. W. Chung, Bot. Bull. Acad. Sin. 43:155. 2002. Isotype. Taiwan, Kaohsiung Hsien, Taoyuan Hsiang, Yushan National Park, from '3026 Lodge' to Kuanshan, elev. ca. 3,300 m. K. F. Chung 1022, accompanied by Y. Kita, C. C. Chen, et S. J. Moore, 20 Aug 1998 (TAIF 308567).



Senecio morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):155. 1911. Type. Taiwan, in monte Morrison, ad 10,000 ped. alt. T. Kawakami et U. Mori 2270, 20 Oct 1906¹⁾ (TAIF 26860).

¹⁾ Oct 1906 (Hayata 1911).



Senecio morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):155. 1911. Type. Taiwan, in monte Morrison, ad 10,000 ped. alt. *T. Kawakami et U. Mori* 2270, 20 Oct 1906¹⁾ (TAIF 26861).

¹⁾ Oct 1906 (Hayata 1911).



Senecio morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):155. 1911. Type. Taiwan, in monte Morrison, ad 10,000 ped. alt. T. Kawakami et U. Mori 2270, 20 Oct 1906¹⁾ (TAIF 26862).
¹⁾ Oct 1906 (Hayata 1911).



Senecio morrisonensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):155. 1911. Type.¹⁾ Taiwan, Kagi, in monte Morrison.²⁾ T. Kawakami et U. Mori s. n., 20 Oct 1906³⁾ (TAIF 26864).

¹⁾ Sasaki (1930a) listed it as a type.

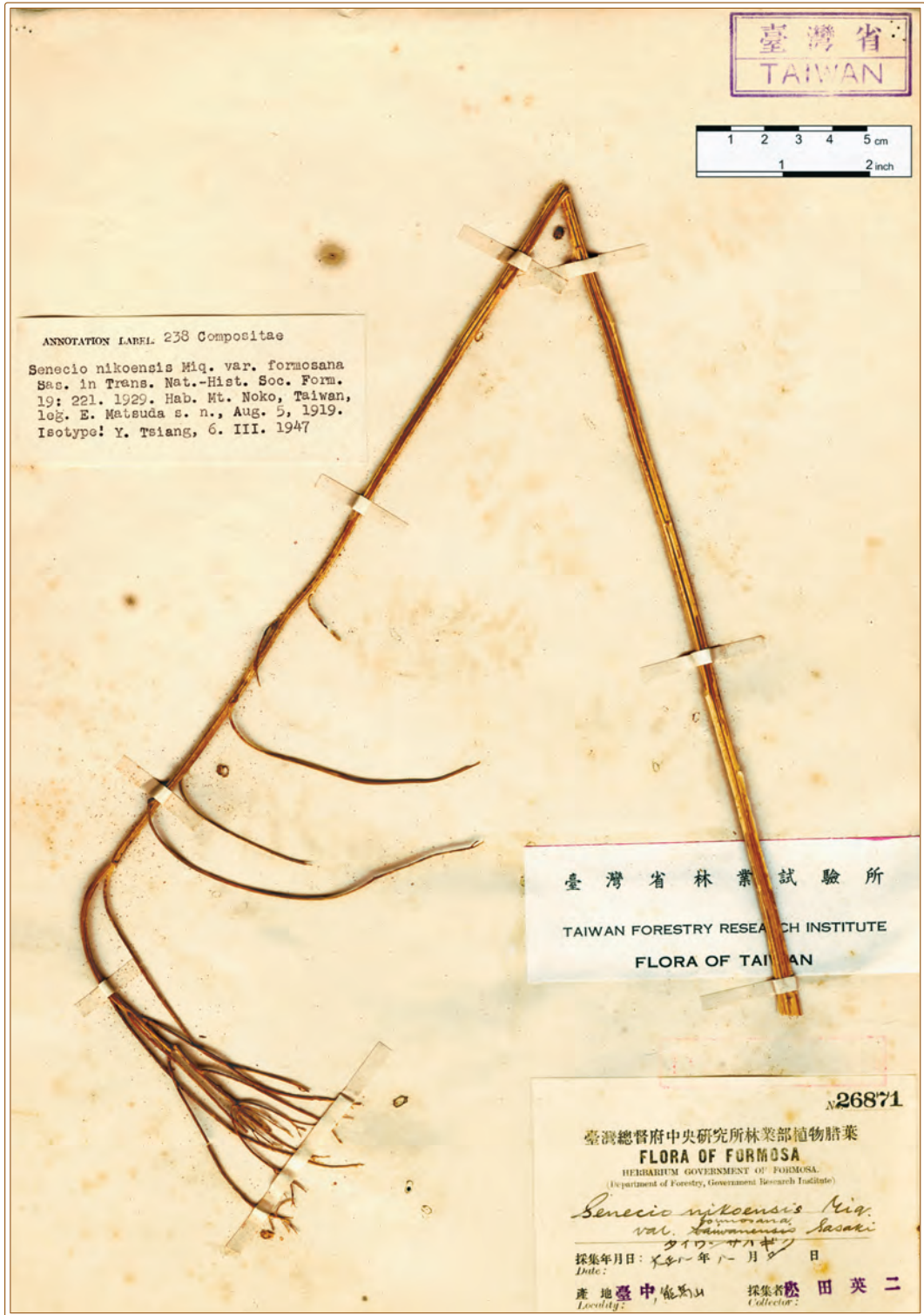
²⁾ in monte Morrison, ad 10,000 ped. alt.;

³⁾ Leg. T. Kawakami et U. Mori, Oct 1906, (No. 2270) (Hayata 1911).



Senecio nikoensis Miq. var. *formosana* Sasaki, Trans. Nat. Hist. Soc. Formos. 19:221. 1929. Type. Taiwan, Taichun, Mt. Noko. E. Matsuda s. n., 5 Aug 1919¹⁾ (TAIF 26870).

¹⁾ Aug 1919 (Sasaki 1929).



Senecio nikoensis Miq. var. *formosana* Sasaki, Trans. Nat. Hist. Soc. Formos. 19:221. 1929. Type. Taiwan, Taichun, Mt. Noko. E. Matsuda s. n., 5 Aug 1919¹⁾ (TAIF 26871).

¹⁾ Aug 1919 (Sasaki 1929).



Senecio nikoensis Miq. var. *formosana* Sasaki, Trans. Nat. Hist. Soc. Formos. 19:221. 1929. Type. Taiwan, Taichun, Mt. Noko. E. Matsuda s. n., 5 Aug 1919¹⁾ (TAIF 26872).

¹⁾ Aug 1919 (Sasaki 1929).



ANNOTATION LABEL. 238 Compositae
Senecio campestris A. DC.; Sas. Cat.
 Governm. Hb. 521. 1930. (*S. taitoensis*
 Hay. Mat. Fl. Form. 156. 1911) Hab. Tai-
 to, Taruko, Taiwan, leg. G. Nakahara
 691, Jan. 1906. Isotype of *S. t.* Hay.
 Y.Tsiang, 6. III. 1947.

臺灣總督府中央研究所林業部植物腊葉
 FLORA OF FORMOSA
 GOVERNMENT HERBARIUM OF FORMOSA, JAPAN.
 (Department of Forestry, Government Research Institute)

Senecio taitoensis Hayata

採集年月日: 日曆一九〇六年一月 日

產地: 台東, 塔羅科 採集者: 中原源 浩

Senecio taitoensis Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):156. 1911. Type. Taiwan, Taito, Taroko.¹⁾ G. Nakahara 691, Jan 1906 (TAIF 26888).

¹⁾ Taito: Taruko (Hayata 1911).



Senecio tashiroi Hayata, Icon. Pl. Formos. 8:68. 1919. Type. Taiwan, Montibus centralibus. U. Mori s. n., 15 Apr 1910¹⁾ (TAIF 26891).

¹⁾ Apr 1910 (Hayata 1919).



臺灣省
TAIWAN

1 2 3 4 5 cm
1 2 inch

臺灣省林業試驗所
TAIWAN FORESTRY RESEARCH INSTITUTE
FLORA OF TAIWAN
Type specimen
Compa

26962
臺灣總督府殖產局植物腊葉
學名: *Sphaeranthus suberiflorus*
Hayata
和名: アマハナサウ
See Hayata Icon Pl. Formos. VIII (1919) 255-262
採集年月: 大正 年 月 日
採集者: 中泉源次
產地 小琉球嶼

ANNOTATION LABEL 238 Compositae
Sphaeranthus africanus Linn. var. *suberiflorus* (Hay.) Yam. in Journ. Soc. Trop. Agr. 9: 91. 1937. (S. s. Hay. Ic. 8: 55, f. 27. 1919) Hab. Sholiukiuto, leg. G. Nakahara s. n., s. d.
Isotype: Y. Tsiang, 6. III. 1947.

Sphaeranthus suberiflorus Hayata, Icon. Pl. Formos. 8:55, pl. 7, f. 27. 1919. Type.¹⁾ Taiwan, Sholiukiuto. G. Nakahara s. n., s. d. (TAIF 26962).

¹⁾ Sasaki (1930a) listed it as a type.



Vernonia kawakamii Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1):149. 1911. Type.¹⁾ Taiwan, Koshun.²⁾ *T. kawakami* s. n., July 1906³⁾ (TAIF 27037).

¹⁾ Sasaki (1930a) listed it as a type.

²⁾ Koshun: Garanbi;

³⁾ Collection date unrecorded (Hayata 1911).



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