

Jin MURATA^{1,*} and Nobushige KATO²: Typification of *Balanophora japonica* and *B. nipponica* (*Balanophoraceae*)

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Summary: Lectotypes are designated for *Balanophora japonica* Makino and *B. nipponica* Makino (*Balanophoraceae*).

Tomitaro Makino described *Balanophora japonica* Makino in 1902 (Makino 1902) and then *B. nipponica* Makino in 1909 (Makino 1909b). In the monograph of *Balanophora* J.R.Forst. & G.Forst. by Hansen (1972), *B. nipponica* was treated as a synonym of *B. japonica*. *Balanophora yakushimensis* Hatus. & Masam. was described in 1971 (Hatusima 1971) but Hansen (1972) did not treat this species. In the recent Japanese floras and related taxonomic papers, these are recognized as three separate species (Murata 1990, 2006, 2017) but lectotypification has not been made for *B. japonica* and *B. nipponica*. Based on examination of the relevant literature and herbaria we designate lectotypes for these species.

In the protologue of *B. japonica*, Makino (1902) cited specimens as follows but did not designate the holotype (numbers are provided here for the convenience of indication): “Hab. Prov. Tosa (①T.Makino!, ②T.Yoshinaga!, ③I.Nakamura!, ④M.Fudzita!); Prov. Idzu (⑤S.Okubo!); Prov. Higo (⑥M.Murakami!, ⑦T.Kawakami!); Prov. Hyuga (⑧Y.Tanaka!); Prov. Etchu ⑨ [collector ?]; Prov. Shimotsuke (⑩T.Uchiyama!); Amami-Oshima (⑪T.Uchiyama!)”. He also cited a previous publication by Ito (1888), as *B. dioica* R.Br.,

with its Plate V (figs. 5, 6). In due course the above numbered entities and the Plate V (figs. 5, 6) of Ito (1888) are original materials of *B. japonica*. The entities ① (from two local places) and ⑤ were cited in the Catalogue of Plants in the Herbarium (Imperial University 1886). We examined the main herbaria of Makino’s specimens, in TI and MAK, and found only a part of entity ① in TI, but other entities are missing. The entity ① consists of three duplicate specimens collected by Makino from Tosa Province in 1884. We designate one of the specimens (TI00082326, Fig. 1) as lectotype. It is notable that the Plate V (figs. 5, 6) of Ito (1888) might be based on the same gathering as the lectotype. Judging from the collection locality, entity ⑤, ⑨ and ⑩ are considered to be *B. nipponica* and ⑨ and ⑩ were moved to *B. nipponica* by Makino (1909a). The entity ⑪ is considered to be *B. yakushimensis*.

In the protologue of *B. nipponica*, Makino (1909b) cited specimens as follows “Hab. Prov. Shimotsuke: Nikko (T.Uchiyama!; S.Kusano!)” Ikaho (M.Kamiya!); Prov. Sado (G.Wanatabe!), but did not designate the holotype. These entities are considered to be original materials together with the Plate III (Fig. 2) in the protologue. The entities Nikko (S.Kusano) and Ikaho (M.Kamiya) were noted to be alcohol-preserved specimens (Makino 1909b). It is not certain whether the entities ⑨ and ⑩ of Makino (1902) correspond to any of the specimens cited here, but they are also

References

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邑田 仁¹, 加藤 僖重²: ツチトリモチとミヤマツチトリモチ (ツチトリモチ科) のレクトタイプ指定

ツチトリモチ *Balanophora japonica* Makino とミヤマツチトリモチ *B. nipponica* Makino のレクトタイプを指定した。ツチトリモチの原発表 (1902 年) では、少なくとも 11 点の標本と、伊藤篤太郎が 1888 年に *Balanophora dioica* R.Br. として *The Journal of the Linnean Society, Botany* に発表した図が引用されており、これらが原資料と考えられる。東京大学標本室 (TI) と東京都立大学牧野標本館 (MAK) を調べたところ、現存する標本は TI の 1 点 (重複標本 3 枚) のみであったので、そのうちの 1 枚 (TI00082326) をレクトタイプに指定した。ミヤマ

ツチトリモチの原発表 (1909 年) については、現存する引用標本が 1 点も見つからなかったため、原発表に含まれる図 (植物学雑誌 23 巻 Plate III) をレクトタイプに指定した。なお、標本産地から、ツチトリモチのシクタイプにはミヤマツチトリモチとヤクシマツチトリモチ *B. yskushimensis* Hatus. & Masam. が含まれていると考えられる。

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