

理学博士 牧野富太郎 創始 主幹 薬学博士 朝比奈泰彦

植 物 研 究 雜 誌

THE JOURNAL OF JAPANESE BOTANY

第 30 卷 第 2 號 (通卷第 325 號) 昭和 30 年 2 月發行

Vol. 30 No. 2 February 1955

Toshio HAMAYA*: Some taxonomical notes on Thymelaeaceae from Japan and the adjacent regions (1)

浜 谷 稔 夫*: ジンチョウゲ科雜記 (1)

1. On *Daphne* sect. *Mezereum* Spach.

In these regions five species have been described, namely *Daphne pseudo-mezereum*, *D. kamschatica*, *D. jezoensis*, *D. koreana* and *D. rebunensis*—these will be abbreviated hereafter as follows: *D. p.-mez.*, *D. kam.*, *D. jez.*, *D. kor.* and *D. reb.* respectively. Since Maximowicz distinguished the former three species in 1866, distinguishing characters have been found chiefly in the shape of leaves, the ratio between the length of a tube and a lobe of a calyx, and the position of stamens in the tube. Nakai divided *D. kor.* from the others with biennial leaves by its annual leaves. Tatewaki pointed out the shortness of tubes and the equal height of lower stamens and a stigma in a flower as characters to distinguish *D. reb.* from *D. jez.* Besides these, whether inflorescences are terminal or lateral was considered as one of important points to draw a line between *D. p.-mez.* and *D. jez.* by Ohwi. With regard to each of these characters and others, the author's observations are described below.

1. Flowers. a) The size and the sexuality: Of these five species the first three have been known as dioecious (Makino, Ill. Fl. Jap. 1949; Ohwi, 1953). The other two also seem no doubt to be so. Male and female flowers in a species are generally of different sizes, i. e. male flowers (the length of tubes 8-10 mm) are larger than female ones (4-6 mm); stamens in the male (1.5-2 mm long) likewise larger than the female (1-1.5 mm). And as ovaries

* Institute of Forest Botany, Faculty of Agriculture, University of Tokyo. 東京大学農学部森林植物学教室

in the females are larger in comparison with the length of tubes, their stigmas almost always reach the lower stamens.

Tatewaki's *D. reb.* must have been described on the basis of these female plants. The herbarium specimens (involving the type) lent to the author by Dr. Tatewaki through Prof. Inokuma show that almost all of them were female. One of them has larger male flowers. On the other hand, more southern *D. p.-mez.* and *D. jez.* have generally female flowers of the same size as they are. In addition, although the size of flowers shows somewhat variation in each species, the sex of them is easily distinguishable if the height of lower stamens and an ovary are considered at the same time.

b) The position of stamens: Upper stamens of *D. kam.* are inserted in the calyx-tube at the height of three fourths, while the others except *D. kor.* whose flower is not yet described and unseen by the author have the upper stamens half exposed, as Maximowicz described. All specimens of *D. reb.* belong to the latter.

c) The ratio between the length of the tube and the lobe: Maximowicz described as follows: in *D. p.-mez.* "laciniis.....dimidium tubum superantibus", in *D. jez.* "laciniis dimidium tubum aequantibus", and in *D. kam.* "laciniis dimidium tubum vix aequantibus" On the other hand, the author has observed as follows: in *D. kam.* the length of the lobe is from $\frac{1}{3}$ to $\frac{1}{2}$ of that of the tube, in the others the ratio varies from $\frac{1}{2}$ to 1. Normally, however, in *D. p.-mez.* it is near to $\frac{1}{2}$ and in *D. jez.* to 1. On this character, *D. reb.* is not different from *D. jez.*

2. Leaves. a) The shape and the size: These characters are very variable in these species. Generally speaking, however, each species shows somewhat proper width of variation as follows: in *D. p.-mez.* leaves are 5-13 cm long, 1-3 cm wide, oblong-lanceolate to obovate-oblong, tips being acute to apiculately obtuse. In *D. kor.*, as Nakai described, generally longer (6-10 cm) and wider (2-3 cm) than *D. p.-mez.* And yet many examples of *D. p.-mez.* with the similar characters to *D. kor.* have been found in Japan, especially in mountain ranges and northern regions of its distribution. In *D. jez.* and *D. reb.* 3-8 cm long, 1-3.5 cm wide, obovate-oblong—generally the widest near the tip—, and tips vary from acute to apiculately obtuse, truncate or emarginate as the leaves grow. *D. jez.* sometimes shows the shape and the size very similar to *D. p.-mez.* especially in its southern ranges. Lastly in *D. kam.*, 3-5 cm long,

0.7-2 cm wide, oblong-oblongate or obovate-elliptic, tips apiculately acute or obtuse.

b) Lateral veins: The form of the lateral veins is worth to be a criterion dividing these species into two groups (fig. 1). In *D. p.-mez.* those near the base of the leaf are irregular and ramify earlier, and those near the tip make larger angles against the midrib. On the contrary, in *D. jez.*, *D. reb.* and *D. kam.* those near the base are regular and simpler up to their ends, and those near the tip make comparatively smaller angles. These characters seem to have relation to the shape of leaves partially. But the author is convinced that this dividing point is enough available

for almost all cases except very few intermediate examples. *D. kor.* and the above-mentioned cases of *D. p.-mez.* in mountain ranges are this exception, although they belong to the *D. p.-mez.*-form.

By the way, *D. kiusiana* Miquel (*D. jez.*-form) and *D. Miyabeana* Makino (*D. p.-mez.*-form) show the similar relation.

3. The growing habit: Except *D. kor.* according to Nakai, all species normally fall their leaves late in summer, as Hultén noted in his *Fl. Kamtsch. Adj. 1. Isl. 3: 140* (1929). And soon after leaf fall, terminal or axillary buds develop early in autumn; at first young inflorescences come out from them and then new leaves and shoots. The flowers stay without opening until they bloom in the next year. Twigs or shoots grow vigorously from the next spring, but sometimes hardly grow and so look like short shoots. In the latter case, the inflorescences seem to be terminal at first glance. There is no difference between *D. p.-mez.* and *D. jez.* in the position of the inflorescences. Moreover, the length of shoots can not be criteria to divide species, though generally they are larger in the southern species.

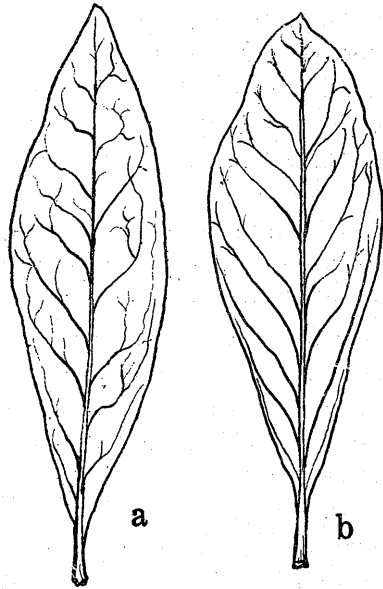


Fig. 1 The venation of *D. pseudo-mezereum* A. Gray (a) and *D. jezoensis* Maxim. (b). ($\times 1$).

This habit often becomes disorderly so far as the author has examined herbarium specimens of *D. p.-mez.* and *D. jez.* In these, before the old leaves fall, the new ones develop. And in the extreme cases—e. g. some plants of *D. jez.* from Shinano (Aug. 11, 1954, M. Furuse) and of *D. p.-mez.* from Mt. Futago in Chichibu (Jul. 22, 1954, S. Kurata), Mt. Kitadake etc.—new inflorescences and leaves are immediately formed at the tops of shoots without formation of buds, that is, fruits, old leaves, new inflorescences and new small leaves exist simultaneously on a plant. In these cases, as the growth in autumn is generally very slow, the inflorescences often look terminal. The description of Nakai's *D. kor.* pointed out that it was from Jun. to Aug. in Corea, where these kinds of materials collected, one of which shows a bud developing in Aug. In the most extreme case, a specimen of *D. p.-mez.* (Mt. Bukô in Chichibu, Apr. 29, 1934, K. Hisauchi) has flowers supposed to have come out in the last Sept. and small leaves developed from the same and other buds.

The author consequently considers that the growing habit in this section is very irregular as *Wikstroemia retusa* in Ryukyu is sometimes deciduous and sometimes evergreen and that *D. kor.* distinctly belongs to *D. p.-mez.* But the author is not assured of whether this habit is individual or by special case in that year, though he thinks the latter more possible. On the other hand, if we consider the facts that the bud scales are homologous with the normal leaves and that the leaves do likely remain in the condition of the scales such as we observe frequently in *D. odora* Thunberg, these variations will be easily understood. To ascertain more accurately this conclusion, of course, it is needful by all means to research flowers of Corean plants, to try to cultivate plants from Mt. Bukô and the other places, and to examine european *D. Mezereum* L., a species having annual leaves and precocious flowers. In addition, plants from Manchuria, Amur and Ussuri have to be studied. Although Nakai wrote about the existence of *D. kor.* in there, the author supposes rather its possibility of *D. kam.*

A key to species.

- a. The ratio of the length between the tube and the lobe of the calyx $\frac{1}{2}$ to 1, the upper stamens half exposed.
- b. The lateral veins irregular and worsely developed, the ratio near to $\frac{1}{2}$, bloom from Dec. to Mar.*D. p.-mez.*
- b. The lateral veins, regular and better developed, the ratio near to 1,

bloom from Apr. to May.*D. jez.*

a. The ratio $\frac{1}{8}$ to $\frac{1}{2}$, the upper stamens entirely included in the tube,
bloom from Jun. to Jul.*D. kam.*

1. ***Daphne pseudo-mezereum*** A. Gray, Bot. Jap. 404 (1859); Hara, Enum. Sperm. Jap. 3: 233 (1954).—*D. kamschatica* auct. non Max., Nakai, Fl. Sylv. Kor. 2: 180 (1911)—*D. koreana* Nakai in Jour. Jap. Bot. 18: 880 et 890 (1937); Kitagawa, Lineam. Fl. Mansh. 325 (1939).

Distr. Central and Southern Japan, southwards from Kantô district; Quelpaert; Corea.

In central Honsyu this reaches 1500 m above the sea level. The author has not found any wild plants of this species in Ohwu district except an abnormal example from Fukushima, Prov. Iwashiro (Nat. Mus. Sci. No. 24211). So he is supposing a boundary line between the next species in the distribution.

2. ***D. jezoensis*** Maxim. ex Regel, Gartenfl. 34 (1866).—*D. pseudo-mezereum* auct. non A. Gray, Tanaka et al., Yûyô-shokubutsuzusetsu, 2: no. 502 (1891), ad distr. Echigo.—*D. rebunensis* Tatewaki in Jour. Sapp. Soc. Agr. For. 34: 90 (1941)—*D. kamschatica* var. *jezoensis* (Maxim.) Ohwi, Fl. Jap. 802 (1953), comb. nud.; in Bull. Sci. Mus. Tokyo, 33: 80 (1953); Hara, l. c. 231 (1954)—*D. kamschatica* var. *rebunensis* (Tatew.) Hara, l. c.: 231 (1954).

Distr. Northern Honsyu, northwards from Echigo and Shinano; Hokkaidô; Isl. Rishiri and Rebun; Isl. Kaiba; Southern Sagalin (Kami-kiminai 上喜美内).

3. ***D. kamschatica*** Maxim., Prim. Fl. Amur. 237 (1859); in Regel, Gartenfl. 34 (1866); Hara, l. c.: 231 (1954).

Distr. Hokkaidô (?); Kurile: Isl. Shikotan; Isl. Kaiba; Sagalin (?); Kamtschatka; Ussuri (?); Amur (?).

The herbarium specimen from Is. Kaiba has no flower, but its leaves seem to show the character of this species.

日本及びその周辺地区のジンチョウゲ属オニシバリ節には5種が記載されている。これらは何れも正常習性として晩夏落葉し、初秋直ちに頂芽又は腋芽から花序及び新条・新葉を開出する。従つて開花時の花序は明らかに新条基部に側生する。しかし主に枝の伸びるのは春・夏である。ところがしばしば旧葉の落ちる前に頂芽を作らずに（作ることもある）新花序と新葉を出したり、或は花序だけ出て新葉は翌春まで出ない例もある。

オニシバリではその分布北限近くや中部山地にあるものにこの例が多い。チョウセンナニワヅはオニシバリのこのような型のもので中井先生手記のその標本には普通のオニシバリ型のものもある。

これらは恐らくすべて雌雄異株で、雄花が大きく雌花が小さい。雌花は萼筒が短い割に子房が大きいため開花時殆ど常に下部雄蕊に柱頭が接する。レブンナニワヅはナニワヅの雌株に基き記載されたものと思う。

更に萼片と萼筒の長さの比が種によつて異なる。オニシバリは $\frac{1}{2} \sim 1$ で $\frac{1}{2}$ に近く、ナニワヅは $\frac{1}{2} \sim 1$ で 1 に近い。カムチャツカナニワヅは $\frac{1}{3} \sim \frac{1}{2}$ で、これのみは又上部雄蕊も全く萼筒内 ($\frac{3}{4}$ の高さ) にかくれる。

最後にオニシバリとナニワヅ・カムチャツカナニワヅを分つ重要な区別点は葉の側脈の形である。第1図に示す如く、前者は葉の基部寄りのものが発達悪く不規則に曲折するが、後二者ではよく発達しスムーズにのびる。チョウセンナニワヅは一見中間的であるが、オニシバリに近いといえる。

従つてオニシバリ、ナニワヅ、カムチャツカナニワヅ (又はカラフトナニワヅ) の3種を認めることができる。

○チシマオドリコ (久内清孝) Kiyotaka HISAUCHI: *Galeopsis bifida*

イタチヅソまたキバナノクマルバナの名で知られている *Galeopsis bifida* Boenninghausen はだいたい中部の北部から北方で採集されていて、日光などでは早くから知られていて当然日本のフロラに仲間入りをしているが、最近これが千葉県津田沼町旧兵舎あとに出てきた。この場合この草は本来日本にあつたものに原因せず、原氏の日本種子植物集覧にもあるように本来のものとは別に外来したものと思う。そこで考えなければならぬことは、フロラを扱う場合である。この草ばかりでなく外にも従来から日本にあつたが、近年入つたものもあることである。津田沼の場合の如きは明かに外来品である。そうしてこの草は米国でも外来品として扱われているところから見ると、どうも世界をまたにかけているらしい。津田沼のはニワトリの飼料に混じて来たらしく、これと共にノムラサキが混つていたところから判断してこの草の故郷が推定できる。一応記録しておく。尤もこれが果して *G. bifida* であるか *G. tetrahit* との雑種であるか私にはわからない。

□春山行夫: *花の文化史* 新書版 205 頁 中央公論社, 昭和 29 年 12 月発行 サフラン, スイセン, 三色スミレ, ハギなど 16 項の栽培, 渡来, 故事, 逸話などを記した読物。行文流暢, 面白いが, 植物学的な誤り若干。¥ 120 (F. M.)

□石井勇義: *園芸大辞典* 第 5 巻 470 頁 誠文堂新光社, 昭和 30 年 1 月発行, 項目ひとつも, 内容充実, あと 1 巻で完結が待たれる。¥ 1000 (F. M.)