

Characters of *Melastoma tetramerum* and the Differences Between the Two Lines[©]

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INTRODUCTION

Melastoma tetramerum Hayata is endemic species of Chichi-jima Island included in Ogasawara Islands. This species is ranked in the category of Critically Endangered in Threatened Wildlife of Japan, Vascular Plants (2000) with native plants remaining only at Higashi-daira area (1 plant) and Higashi-kaigan area (40 to 50 plants). We think that ornamental use is one of the means for increasing the number of individuals under culture and investigated these potential characters of *M. tetramerum* and related species (including cultivars) classified to *Melastoma*, *Osbeckia*, and *Tibouchiana*.

Prominent Characters of *Melastoma tetramerum* and Related Species.

When considering leaf length and length/width values of leaves, *T. urvilleana* showed the largest value, *O. nepalensis* 'Himalayan Opal' showed the smallest value, and *M. tetramerum* occupied the middle position between the previous species. With flowering time, *M. candidum* var. *alessandrense* was earliest (May-June), *T. 'Côte d'Azur'* was latest, other species flowered long term from August, but flowering term of *M. tetramerum* was only 1 month. Flowering period per flower was only 1 day for all except *T. 'Côte d'Azur'*. *Melastoma tetramerum* has obvious differences when compared with other related species, those are tetramerous flowers and simple inflorescence. As a result, *M. tetramerum* blooms with fewer flowers than the other related species (Table 1).

Difference Between Two Lines of *Melastoma tetramerum*. The line from the Higashi-kaigan area has the following characters when compared with another line from Higashi-daira area: few flower buds, larger flower, foliaceous long calyces, sharp-cut petals, larger leaf, and longer internode. In those characters, few flower buds, larger leaf, and long internode showed that light condition is not fit for growth of this line.

CONCLUSION

Melastoma tetramerum has little merit compared with other taxa from the point of short flowering period and few flower buds. But, we think that it is possible to improve the horticultural value of this species by interspecific crossing and to investigate environmental conditions in culture, especially light condition.

Table 1. Prominent characters of *Melastoma tetramerum* and related species.

	Leaf length (mm)	Length/width	Flowering time	Inflorescence	Flowering period per flower	Diameter of flower (mm)	Petals no.	Calyx length (mm)
<i>Melastoma</i>								
<i>M. tetramerum</i> (Higashi-daira)	65.8	2.92	Aug.-Sept.	Simple	1 day	54.1	3.97	14.6
<i>M. tetramerum</i> (Higashi-kaigan)	89.3	3.12	Aug.-Sept.	Simple	1 day	60.2	4.13	29.2
<i>M. candidum</i> var. <i>allessandrensis</i>	99.3	2.26	May-June	Cyme	1 day	-	-	-
<i>Osbeckia</i>								
<i>O. nepalensis</i> ?	51.4	3.58	Oct.-Dec.	Cyme	1 day	43.1	4.91	11.2
<i>O. nepalensis</i> 'Himalayan Opal'	46.9	4.74	Sept.-Dec.	Cyme	1 day	48.1	4.90	9.9
<i>Tibouchiana</i>								
<i>T. urvilleana</i>	107.2	1.62	Aug.-Oct.	Cyme	1 day	82.3	5.14	15.7
<i>T.</i> 'Cote d'Azur'	49.2	2.18	Oct.-Dec.	Cyme	3-4 days	71.2	5.10	8.7