

POSTER 2

A Comparative-Study of *Pinguicula ramosa* MIYOSHI and *P. variegata* TURCZ.
Ecology and Morphology

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Pinguicula ramosa MIYOSHI and *P. variegata* TURCZ., both classified in the subgenus *Temnoceras*, are considered to be distinct species (Casper, 1966). Even though there are some morphological differences between the two species, Ernst (1961) considered that the former was a 'form' of the latter species. In 1997, the authors studied the little-known species *P. variegata* in habitat on the Russian island of Sakhalin. The ecological and morphological differences between *P. ramosa* and *P. variegata* are discussed.

Ecology. *P. ramosa*, an extremely rare Japanese endemic species, is confined to the Nikko Mts., at an altitude of between 1,500 and 2,000 m (4,500-6,000 feet), and grows upon wet vertical or overhanging rocks. This species usually occurs as scattered individual plants. *P. variegata*, widely distributed across eastern Russia, grows in bogs and wet grassland, and often forms colonies of up to 20 plants.

Morphology. Both species are very small perennial rosette herbs. A very clear morphological difference between the two species can be seen in the flower stalks. The flower stalks of *P. ramosa* are often branching, hence the Latin name (*ramosa* = branching), i.e. Y- or Ψ-shape, and the length is usually not more than 8 cm. *P. variegata*, on the other hand, has a single straight flower stalk reaching up to 13 cm. The flower colour of the two species is similar being pale reddish/purple to white. However, the corolla of *P. variegata* is slightly larger and the corolla lobes are longer in comparison to *P. ramosa*. The central lobe of *P. variegata* (6-7 × 4-5 mm) is wider than that of *P. ramosa* (3.5-5 × 2.5-4 mm), and has a single large yellow spot, while that of *P. ramosa* has two small yellow spots. The spur of *P. variegata* is sometimes longer and only slightly thicker (4-5 × 1.5-2 mm) than that of *P. ramosa* (3-5 × 0.8-1 mm). The calyx of *P. ramosa* is clearly divided into 3 upper lobes and 2 lower lobes, but that of *P. variegata* is radially symmetric. The leaf-blade of *P. ramosa* is ellipsoidal to oblong (10-15 × 5-10 mm), bright yellowish green, while that of *P. variegata* is orbicular (5-7 mm), tinged with dark red. *P. ramosa* forms short petioles, but *P. variegata* forms long underground petioles, which sheathe the base of the flower stalk. The numbers of chromosomes, 2n=18 in *P. ramosa* (Yoshimura, 1973) and 2n=64 in *P. variegata* (Zhukova and Tikhonova, 1971), shows a great difference. Although a taxonomically close relationship has been pointed out, many differences can likewise be seen between the two species. Ernst (1961) suggested that *P. ramosa* was a 'form' of *P. variegata*, without having seen any flowers of *P. ramosa*. The authors consider that *P. ramosa* made its speciation at a relatively early evolutionary stage.

References

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POSTER 3

Nepenthes - from Carnivory to Myrmecophyty

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