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NEW SPECIES IN THE FAMILY EPACRIDACEAE

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ABSTRACT

Three Tasmanian endemic species from the Epacridaceae are considered. Specific status has been given to *Monotoca scoparia* var. *submutica* and a new variety, *Monotoca submutica* var. *autumnalis*, is described. In addition, descriptions for two recently discovered species, *Cyathodes pendulosa* and *Epacris navicularis*, are included.

DESCRIPTIONS

Monotoca submutica (Benth.) S.J. Jarman, comb. et stat. nov.

BASIONYM: *Monotoca scoparia* R. Br. var. *submutica* Benth., Fl. Austral. 4 : 231.
HOLOTYPE: Mt. La Perouse, Tasmania, C. Stuart, 1868 (K).

An erect, compact shrub, 1 - 3 m high, or sometimes a small tree up to 6 m high, branchlets puberulent, plants usually dioecious. Leaves suberect, elliptical to oblong or obovate, 6 - 12 mm long, 2 - 3.5 mm wide, flat or slightly convex with the margin scarcely recurved, upper surface green, lower surface glaucous, apex obtuse with a short callous point, petiole distinct, c. 1 - 1.5 mm long. Flowers axillary, often solitary but also in short spikes of 2 - 4 flowers, pedicel usually recurved with a variable number of bracts (2 - 7). Sepals broadly ovate, c. 1 mm long, ciliate. Corolla white but quickly turning yellow-white when removed from the plant, tube c. 1 mm long, equal in length to the calyx, lobes longer than the tube. Anthers half exerted on male flowers, absent on female flowers. Ovary unilocular. Disk of 5 lobes. Drupe spherical or oval, orange or yellow, 2 - 4 mm deep.

Flowering time: September - October.

Distribution and Habitat: Endemic to Tasmania. *M. submutica* is widespread in southern and western Tasmania, growing in subalpine forests, where it is usually a low to medium shrub, or in wet sclerophyll associated with rainforests where it forms a small tree. A more robust form than typical *M. submutica* is known from Freycinet Peninsula on the east coast.

Comments: *Monotoca submutica* differs from *M. scoparia* in habitat, habit, flowering time (excepting var. *autumnalis*), leaf shape and size, and in having corolla lobes longer than the tube.

Monotoca submutica (Benth.) S.J. Jarman var. *autumnalis* S.J. Jarman, var. nov.

Frutex humilis laxis 15 - 40 cm altus. Folia patentia late ovata - late elliptica, lamina 3 - 6 mm longa 2 - 4 mm lata.

HOLOTYPE: L. Nicholls, Mt. Field, Tasmania, R.K. Crowden and S.J. Jarman, 7.3.73 (Tasmanian State Herbarium, HO).

A low open shrub, 15 - 40 cm high. Leaves spreading, broadly ovate to broadly elliptical, lamina 3 - 6 mm long, 2 - 4 mm wide.

Flowering time: February - April.

New Species In The Family Epacridaceae

Distribution and Habitat: At present, this species is known only from subalpine forest on Mt. Field where it forms part of the low shrubbery beneath *Eucalyptus coccoifera* and *E. johnstonii*. It is known from the L. Webster track and from around L. Nicholls and Beattie's Tarn.

Comments: A distinct separation in flowering and fruiting times occurs between this variety and typical *Monotoca submutica*. Other differences between the two are mostly a matter of degree, but these have a cumulative effect so that no difficulty is experienced in recognising the two taxa in the field.

Cyathodes pendulosa S.J. Jarman, sp. nov.

Frutex humilis erectus 0.5 - 1 m altus similis habitu *Cyathodi divaricati* secus caulem fasciculatum, ramulis pubescentes, plantae plerumque dioeciae. Folia alterna et laxa in caulibus primariis autem conferta et saepe petiolis tortis aspectu disticho in caulibus brevibus lateralibus, 3 - 8 mm longa, 0.5 - 1.5 mm lata, lamina reflexa vel patens convexa, margo scaberulus, apex protractus in acumen tene pungens, supra viridia subtus glauca et striata venis 3 - 5 in ramulis parallelis; petiolus brevis circa 1 mm longus. Flores solitarius terminales raro axillaris penduli, pedicellus 2 - 4 mm longus. Bractae ciliatae imbricatae bracta suprema longitudine $\frac{1}{2}$ calycem aequans. Sepalia c. 2 mm longa elliptica apice rotundato. Corolla alba glabra 3 - 4 mm longa, lobi tubo breviores. Antherae semi-inclusae. Discus 5-lobus vel e squamis 5. Ovarium 5-loculare. Fructus drupaceus 5 - 9 mm profundus 7 - 12 mm in diametro ruber vel roseus.

HOLOTYPE: Foothills of Ben Lomond, Tasmania, R.K. Crowden and S.J. Jarman, 16.6.1976 (Tasmanian State Herbarium, HO).

A small erect shrub, 0.5 - 1 m high, resembling *C. divaricata* in habit, with branches clustered along the stem, the branchlets pubescent, plants usually dioecious. Leaves alternate and loose on primary stems but crowded and often with the petioles twisted, appearing distichous, on short lateral branches, blade reflexed or spreading, entire, convex, the margin minutely scabrous, 3 - 8 mm long, 0.5 - 1.5 mm wide, apex tapering to a fine pungent point, upper surface green, lower surface glaucous and striate with 3 - 5 parallel unbranched veins, petiole c. 1 mm long. Flowers solitary, terminal, rarely axillary, nodding, pedicels 2 - 4 mm long. Bracts imbricate, ciliolate, the uppermost c. half the length of the calyx. Sepals elliptical with rounded apex, c. 2 mm long, ciliolate. Corolla white, glabrous, 3 - 4 mm long, lobes shorter than the tube. Anthers half exserted. Disk of 5 scales or lobes. Ovary 5-locular. Fruit a drupe, 0.5 - 0.9 mm deep, 0.7 - 12 mm in diameter, pink or red.

Flowering time: May - July

Distribution and Habitat: Endemic to Tasmania. *C. pendulosa* was collected from the south-eastern foothills of Ben Lomond (N.E. Tasmania) where it grows among rocks and boulders in open Eucalypt forest (*Eucalyptus delagatensis*). Accompanying Epacrid species include *Cyathodes parvifolia* and *C. glauca*. The range of its distribution in Tasmania has not been fully determined but it is known from at least three other locations in the north-east, i.e. St. Patricks Head, the L. Leake Road and near Mt. Puzler.

Comments: *C. pendulosa* appears closest to *C. divaricata* and *C. parvifolia* but it differs from both in a number of characters. It resembles *C. divaricata* in habit, forming an open shrub with short branches in annual clusters along the stems. The leaves are small and closely resemble those of *C. parvifolia*. The flowers are white with glabrous lobes similar to *C. parvifolia* but are larger attaining the size and shape of *C. divaricata* flowers. The fruit shape and size are similar to those of *C. divaricata*.

S.J. Jarman and R.K. Crowden

C. pendulosa was first brought to our attention by Mr. R. Shepherd (Department of Lands, Hobart).

Epacris navicularis S.J. Jarman, sp. nov.

Frutex humilis ramosissimus ad 0.5 m altus, caules novelli pubescentes, caules veteres scabri cicatricibus procumbentibus foliorum. Folia conferta imbricata quinquefaria navicularia 2.5 - 3.5 mm longa circa 1 mm lata crassa concava, subtus carinata, apex acutus vel acuminatus acumine brevi incurvo, margo ciliolatus; petiolus brevis latus. Flores solitari ad apicem ramorum axillares subsessiles. Bracteae et sepalia late lanceolata ad ovata-elliptica acuta vel acuminata ciliolata; sepalia circa 3 - 3.5 mm longa. Corolla alba campanulata, tubus lobis et calyce breviores. Stamina filamentis antheris fere aequilongibus. Discus e squamis 5. Ovarium 5-loculare, ovuliis multis, stylus tubo aequilongus.

HOLOTYPE: Mt. Sprent, Tasmania, R.K. Crowden, J.A. Hills and S.J. Jarman, 8.2.1977 (Tasmanian State Herbarium, HO).

A small much branched shrub up to 0.5 m in height, young stems pubescent, old stems rough with raised leaf scars. Leaves crowded, imbricate, in 5 ranks, ovate-elliptical, 2.5 - 3.5 mm long, c. 1 mm wide, thick, concave, the lower surface keeled, apex acute or acuminate with a short incurved point, margin ciliolate; petiole short, broad. Flowers solitary, axillary at the tips of the branches forming short terminal heads. Bracts and sepals broadly lanceolate to ovate elliptical, acute or acuminate, ciliolate, sepals 3 - 3.5 mm long. Corolla white, campanulate, the tube shorter than the lobes and the calyx. Stamens with filaments as long as the anthers. Disk of 5 broad scales. Ovary 5-locular, with numerous ovules; style as long as the tube.

Flowering time: January - March.

Distribution and Habitat: Endemic to Tasmania and known only from Mt. Sprent on the Wilmot Range, south-west Tasmania (c. 1040 m alt.). It occurs in exposed alpine heathlands.

Comments: Closest affinities are with *Epacris petrophila* from which *E. navicularis* differs in leaf shape, the persistence of crowded raised leaf scars and the presence of longer sepals and style.

It may be separated from all *Epacris* species by the 5-ranked arrangement of the leaves.

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