SHORT COMMUNICATIONS

A new species of *Typhonium* (Araceae: Areae) from the West Kimberley, Western Australia

Typhonium Schott is a genus of about 40 species of East Asian and Australian geophytic, mostly saproentomophilous aroids, the largest genus of the eastern-hemispheric tribe Areae. *Typhonium* has been revised recently for Australia (Hay 1993) and *in toto* (Sriboonma 1994), with the subsequent addition of three new species in Australia (Hay 1996; Hay & Taylor 1997). Several further new species are also coming to light in Indochina (Dzu & Croat 1997; Hetterscheid, pers. comm.). Here we describe another new Australian species, bringing the total for Australia to 17, of which all but two are endemic. A key to Australian *Typhonium*, including this new species, will appear in the forthcoming treatment for "Flora of Australia" (Hay, in prep.).

Typhonium peltandroides A. Hay, M.D. Barrett & R.L. Barrett, *sp. nov.*

Typhonium alismifolium F. Muell. sens. lat. simulans, sed folii lamina elliptica, nervis numerosissimis striatis, inflorescentiae organis neutris clavulatis differt.

Typus: Grevillea Gorge on Beverley Springs Station, West Kimberley, Western Australia, 16°30'25"S, 125°20'E, 14 January 1996, *R.L. Barrett & M.D. Barrett* 700 (*holo:* PERTH (+ spirit); *iso:* NSW).

Deciduous *geophyte*; corm depressed globose, to 50 mm wide; foliage leaves 3 or 4 together, arising from parts of each of two modules of a sympodium, the later module subtended by a cataphyll *c.* 7 cm long; petiole 15–50 cm long, distinctly sheathing in lower 1/2 (sheath membranous, to 16 cm); leaf blade ovate to narrowly ovate, always simple, (8–)*14–34 x (3–)7–11.7 cm obtuse at base, apex acute to acuminate; midrib strongly prominent abaxially in the basal half; primary lateral veins *c.* 12 on each side of the midrib diverging at (20–)30–45 degrees, weakly differentiated from the secondary venation, secondary venation in turn rather weakly differentiated from the tertiary; all veins arising from midrib forming a closely striate pattern, ultimately running into a well-defined intramarginal vein 2–3 mm within the margin. *Inflorescence* among the leaves, terminal, preceded by leaves of the module bearing it and followed by more of the next module (this apparently sometimes terminated by a second flower in the same year); bloom smelling of decaying flesh; peduncle (6–)14–24 cm long, *c.* 5 mm diam., elevated *c.* 3–15 cm above soil surface. *Spathe* base green, strongly constricted at apex, broadly oblong, 1.6–2.5 x 1.2–2.7 cm; spathe limb greenish abaxially, entirely deep reddish-purple adaxially (yellowish flesh-coloured at constriction), ovate, (5–)9–12 x (3–)6–8 cm, recurved and spreading at base. *Spadix* slightly shorter than spathe; female zone *c.* 7 x 10 mm; interstice *c.* (12–)21 x 3.5 mm, with sterile organs on lower 4 mm, naked above; male zone *c.* (11–)18 x 7 mm; appendix narrowly conical, sessile, deep reddish-purple, 7.5–9.5 x 1.0–1.2 cm (at widest point), somewhat recurved, base asymmetric, oblique in profile. *Pistils c.* 50, plagioscopic, obovate, *c.* 3 x 1.5 mm, ovary unilocular and uniovulate. *Sterile organs* filiform, slightly clavate at tips, tangled and twisted in all directions, 8–15 mm long. *Male flowers* cream, becoming apricot with pollen. *Fruiting spathe* base persistent and enclosing berries, green, *c.* 2.5 x 2.5 cm. *Seeds* brown, orbicular, slightly laterally compressed with many longitudinal furrows and pits, *c.* 5 x 4.5 mm. (Figure 1)

* all dimensions in parentheses from a cultivated plant (*M.D. Barrett* 599).

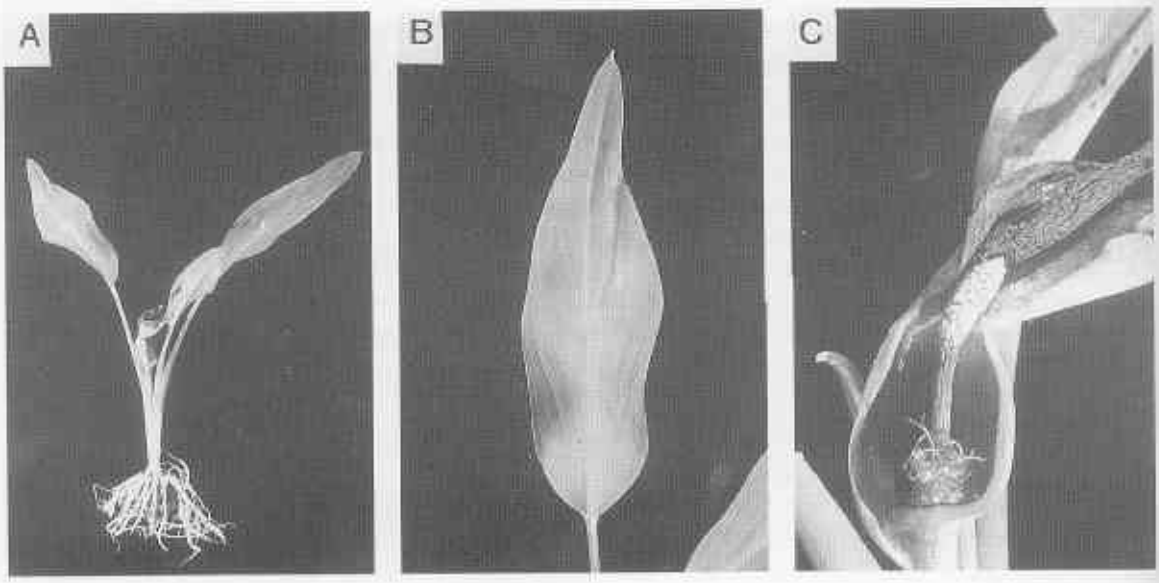

Figure 1. *Typhonium peltandroides* A – whole plant, B – leaf, C – base of spathe and spadix.

Other specimens examined. WESTERN AUSTRALIA: locality as for type, *R.L. Barrett & M.D. Barrett* 340 & 913 (both PERTH); cult. Kings Park & Botanic Garden, ex type locality, *M.D. Barrett* 599 (PERTH).

Distribution. Known only from Grevillea Gorge in the Synnott Range on Beverley Springs Station in the West Kimberley where it is known to occur in small pockets along the gorge. A large group of *c.* 80 plants occurs amongst vine thicket below an ephemeral waterfall, while another large group of *c.* 20 plants grows amongst spinifex on sheltered rock ledges near the top of the gorge; scattered plants occur amongst *Triodia* on sheltered rock ledges on the gorge rim.

Habitat. In shallow sand amongst rough sandstone, either in vine thicket (with *Alstonia linearis* Benth., *Diospyros* sp. and *Geodorum neocaledonicum* Schltr.) or amongst *Triodia* clumps on sides of a gorge.

Flowering period. Late December to January. Fruits mid January to March. The flowering spathe base is usually full of beetles.

Conservation status. CALM Conservation Codes for Western Australian Flora: Priority One. Only one population of less than 200 plants is known. Further searches for this species in likely habitat in the adjacent Salvoni Gorge system failed to produce any further populations.

Etymology. The specific epithet alludes to the resemblance of the leaf venation to that of the North American genus *Peltandra* (Araceae: Peltandreae), in which the venation is also striate with a pronounced intramarginal vein. The choice of epithet is unrelated to Croat's (1998: 66) mistaken assertion that one of us (A.H.) thought another Australian species of *Typhonium*, *T. mirabile* (A. Hay) A. Hay (Tiwi Islands), was actually a species of *Peltandra*.

Affinity. The new species is clearly allied to *T. alismifolium* F. Muell., a species which Hay (1993) treated provisionally as a rather widely circumscribed complex in need of further resolution. *Typhonium alismifolium* has a wide distribution from north-eastern Queensland to Central Australia, and has recently been recorded, as a very robust variant, from near Oodnadatta, South Australia (Hay, in prep.). In spite of the wide circumscription of *T. alismifolium*, the new element combines wide geographical disjunction from that species with differing leaf shape (reduced, though nevertheless distinct posterior lobes are always present in *T. alismifolium*) and, more significantly, highly distinctive striate leaf venation. This venation pattern is unique in the genus (though approached in the north-west Australian *T. liliifolium* F. Muell. which differs qualitatively in its shoot architecture) and it forms the principal basis for recognizing the new element as a discrete species segregated from that complex. Inflorescence structure is similar to that of *T. alismifolium* in the more western parts of its range (sessile appendix), but the neuter organs at the base of the sterile zone are slightly clavate in *T. peltandroides*, and apparently not so in *T. alismifolium*.

Acknowledgements

A.H. thanks PERTH for the loan and donation of cited specimens to NSW.

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