



119 LENTIBULARIACEAE¹

Miguel F de Salas²

Small annual or perennial carnivorous herbs, terrestrial of wet substrates, epiphytic or aquatic, the latter rooted in their substrate or free floating with fully submerged photosynthetic organs. Leaves or photosynthetic stolons rosetted and crowded, or alternate, sometimes reduced. Inflorescence terminal or axillary, single-flowered or racemose. Flowers bisexual, zygomorphic. Calyx persistent, 4–5 lobed, or cleft into an upper and a lower lip. Corolla sympetalous, bilabiate and spurred. Stamens 2; anthers unilocular, fused to the corolla. Carpels 2, fused, forming a compound unilocular ovary with a free central placenta; style very short, bilobed, the upper lobe reduced. Fruit a capsule. Seeds numerous, minute, reticulate and without endosperm.

A cosmopolitan family of three currently recognised genera (Jobson *et al.* 2003), although a total of five have been commonly accepted in the past (Cronquist 1981), containing 281 species, of which one genus and 65 species occur in Australia, 7 of these in Tasmania. Lentibulariaceae are placed inside the Lamiales (Stevens 2001 onwards), and is closely allied to the Scrophulariaceae (Cronquist 1981).

Synonymy: Pinguiculaceae, Utriculariaceae

1 UTRICULARIA

Utricularia L., Sp. Pl. 1: 18 (1753).

Synonymy: Polypompholyx, Lehm., Bot. Zeitung (Berlin) 2: 109 (1844). Pleiochrasia (Kamiénsky) Bernhart, Mem. New York Bot. Gard. 6: 52 (1916).

Annual or perennial herbs, aquatic, terrestrial or epiphytic (not in Australia). Habit stoloniferous or rosulate or free-floating, mostly small and delicate; vegetative parts not clearly differentiated into organs, with plants consisting of stoloniferous vegetative growth that is modified into parts that act functionally as roots, stems, leaves and small bladders, the latter used to trap fauna from water and soil. Root-like rhizoids present in terrestrial species (in Tas.), descending into the substrate. Main underground, vegetative, axial stolon of indeterminate length, glabrous (in Tas.). Leaves rosulate or alternate from stolons, or reduced. Inflorescence axillary or terminal, single flowered or racemose, glabrous (in Tas.), pedunculate, bracteate. Flowers 1–10, pedicellate, bracteolate. Calyx glabrous, 2–4(–5, but not in Tas.) lobed, or 2-lipped and the sepals free. Corolla bilabiate, with a forward-pointing spur.

A cosmopolitan genus of 214 species, 65 of which occur in Australia, 7 of these in Tasmania. *Utricularia* are commonly found in and around permanent or ephemeral water bodies and seasonally or continually wet ground. Aquatic species reproduce vegetatively through the formation of winter resting buds known as turions, which are resistant to both freezing and desiccation.

Key references: Taylor (1989)

The vegetative size of an individual terrestrial *Utricularia* plant is difficult to estimate. Underground stolons can be 10–15 cm deep and are exceedingly fragile, and thus determining their length is difficult. Intact, full

² Tasmanian Herbarium, Tasmanian Museum & Art Gallery, PO Box 5058, UTAS LPO, Sandy Bay, TAS 7005, Australia.





¹ This work can be cited as: de Salas MF (2019). Lentibulariaceae, version 2019:1. In MF de Salas (Ed.) *Flora of Tasmania Online*. 8 pp. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery: Hobart). https://flora.tmag.tas.gov.au/treatments/lentibulariaceae/

length, underground stolons are almost invariably never collected. Because of this, no stolon length measurements are provided in the individual descriptions, except for aquatic species (which can be measured). Well preserved flowers, pressed so that the parallel ridges which extend distally on the lower corolla lobe are clearly visible, are needed to confidently identify specimens of the *U. dichotoma* species complex: *U. dichotoma*, *U. monanthos*, *U. uniflora*, and *U. barkeri*. Spirit collections or collections that combine properly pressed and spirit specimens are ideal. Good notes on flower colour (or colour-correct photographs) and the three-dimensional arrangement of the corolla parts, particularly the parallel ridges, are essential for correct identification of species in the *U. dichotoma* complex.

1. 1:	Plant aquatic and free-floating Plant terrestrial, or aquatic but not free-floating	1 U. australis 2	
2. 2:	Calyx of four lobes; corolla lower lip consisting of three deeply notched lobes, always pink Calyx of two lobes; corolla lower lip entire or shallowly lobed, purple to mauve, or pink, rarely white	6 U. tenella 3	
3. 3:	Peduncle bearing sterile bracts below the first flower Peduncle without sterile bracts	4 U. lateriflora 4	
4. 4:	Upper corolla lip deeply notched, plant lacking stolons, with all leaves and traps arising from th short stem at the base of the peduncle Upper corolla lip truncate or emarginate, plant stoloniferous, with leaves and traps arising from the nodes	ne 7 U. violacea n 5	
5. 5:	Lower corolla lip with only two central yellow ridges that do not project distally below the ridge on either side Lower corolla lip with three central yellow ridges which project distally below the level of the surrounding ridges	es 3 U. uniflora 6	
6. 6:	Inflorescence less than 4 cm tall, 1–2 flowered; corolla less than 10 mm long Inflorescence 10–50 cm tall, (1–)2–3(–many) flowered; corolla more than 12 mm long	5 U. monanthos 7	
7. 7:	Bracts attached near their middle, with upper and lower lobes approximately of equal length. Corolla upper lobe pale mauve, flecked with purple Bracts attached near their gibbous base. Corolla uniformly purple (rarely white)	8 U. barkeri 2 U. dichotoma	
1 Utricularia australis R.Br., Prodr. Fl. Nov. Holland. 430 (1810)Yellow			
Utricularia flexuosa Vahl, Enum. Pl. [Vahl] 1: 198 (1804).			

Illustrations: Taylor, Kew Bull. 18: fig. 71 (1964, as Utricularia vulgaris); Aston, Aquat. Pl. Austral., 101, fig. 38 (1973); Sainty and Jacobs, Waterplants of New South Wales, 276, 278 (1981); Taylor, Fl. S. Austral. [J.M. Black] ed. 4, 3: 1323, fig. 607A (1986); Taylor, Gen. Utricularia, 602, fig. 184 (1989); Rowe & Brown, Fl. New South Wales 3: 599 (1992); Jeanes, Fl. Victoria 4: 550, fig. 106a (1999).

Perennial, free floating aquatic herb. Vegetative stolons 15–50 (–100) cm long, 0.3–1.0 mm diam., terete, glabrous; internodes (4–)5–11(–16) mm long. Turions present, dark olive green, globose, 2–10 mm diameter. Leaves alternate, 10–25(–35) mm long, divided into two primary segments, each segment repeatedly pinnately divided into filiform segments, ultimately dividing into minute, acute, alternating antrorse segments, giving the alternate leaves a whorled appearance. Bladders attached laterally near the base of the photosynthetic stolons, ovoid, 0.5–2.5(–3.5) mm long. Inflorescence ± erect, racemose, bearing 4–10 flowers; peduncle filiform, terete, 10–30 cm long; sterile bracts 1(–3) in the upper half of the peduncle; fertile bracts with base auriculate, approximately circular; pedicels filiform, terete, 15–30 mm long, erect at anthesis, later spreading. Calyx lobes 2, subequal, ovate, 3–4 mm long, the apex of the upper lobe rounded, that of the lower emarginate. Corolla yellow, with reddish lines and spots, 10–20 mm long; lower lip reniform, up to 18 mm wide; upper lip narrower, broadly ovate; spur broadly conical, much shorter than the

corolla, slightly curved with apex obtuse. Capsule (not seen in Tas.) globose, c. 4 mm in diameter. Flowering Dec.-Feb. Fruiting very rarely seen (in Tas.), approximately one month after flowering.

Tas. (BEN, FUR, TNM, TSE, TWE); all Australian states, Asia, Africa, Europe. In Tasmania, uncommon in freshwater wetlands and slow moving water, in areas that have standing water during their summer growing season, recorded from sea level to c. 450 m. It reproduces vegetatively by turions, formed in late March through to April.

2 Utricularia dichotoma Labill., Nov. Holl. Pl. 1: 11 (1805)

Fairy's aprons, Bladderwort

Utricularia dichotoma Labill. var. dichotoma, sensu G.Bentham, Fl. Austral. 4: 529 (1867); Utricularia billardieri F.Muell., Fragm. (Mueller) 6: 161 (1868) [nom. illeg.] nom. superfl.; Pleiochrasia dichotoma (Labill.) Barnhart, Mem. New York Bot. Gard. 6: 53 (1916). Utricularia oppositiflora R.Br., Prodr. Fl. Nov. Holland. 430 (1810). Utricularia speciosa R.Br., Prodr. Fl. Nov. Holland. 430 (1810); Utricularia linearifolia Benj., Linnaea 20: 306 (1847). Utricularia dichotoma var. typica Domin, Biblioth. Bot. 22(89): 1155 (1929). Utricularia moorei F.E.Lloyd, Vict. Naturalist 53: 107 (1936).

Illustrations: Curtis, The Student's Flora of Tasmania 3: 535 (1967); Willis, Fuhrer & Rotherham, Field Guide to the Flowers & Plants of Victoria: 124, fig 166 (1975); Taylor, Fl. S. Austral. [J.M. Black] ed. 4, 3: 1323, fig. 607B (1986); Taylor, Gen. Utricularia: 109, fig. 10 (1989); Rowe & Brown, Fl. New South Wales 3: 600 (1992); Kirkpatrick, Alpine Tasmania, 113, fig 50f (1997); Jeanes, Fl. Victoria 4: 550, fig. 106i (1999); Cameron, A guide to flowers and plants of Tasmania, ed. 3: 73, fig. 166 (2000); Whiting et al., Tasmania's Natural Flora, ed. 1, 256 (2004); Corrick & Fuhrer, Wildflowers of Victoria: 127, fig. 448 (2008)

Perennial, terrestrial stoloniferous herb, occasionally an affixed aquatic herb or growing as an annual. Underground vegetative stolons terete, to 0.8 mm diameter. Rhizoids simple, capillary, arising from stolon nodes, to 5 cm long, 0.1-0.5 mm diameter. Leaves petiolate, entire, mostly arising from underground stolon nodes, some rosulate; lamina variable in shape and size, ovate-spathulate with rounded apex and 2-4 mm long (in terrestrial specimens), to linear-lanceolate with acute apex and 2-4 cm long when growing under water, 1-2 mm wide in both growth habits, tapering indistinctly into petiole. Traps at stolon junctions, stalked, 1-3(-4) mm in diameter. Inflorescence erect, normally solitary, single flowered or racemose, bearing (1-)2-3(-9) flowers commonly in an opposite pair, or one or more whorls of 3; peduncle terete, (3.5-)5-21(-32) cm high, 0.5-1.5 mm diameter; sterile bracts absent; fertile bracts and bracteoles similar, 1.5-2.0 mm long, attached near the base, narrowly oblong to ovate, base ± gibbous, apex obtuse to acute; pedicels erect, filiform, up to 15 mm long. Calyx lobes 2, unequal, the upper circular or broadly ovate, the lower narrower with bifid apex, 2-5 mm long, often tinted the same colour as the corolla. Corolla dark purple to violet, rarely white, (5-)6-13(-18) mm long, (7-)9-17(-20) mm wide; upper lip constricted in the middle, with a blunt apex, or slightly emarginate; lower lip spreading horizontally or angled at a plane 45° to the peduncle, rounded to slightly 3lobed, with three conspicuous yellow ridges that protrude distally beyond surrounding, parallel, purple ones; corolla spur cylindrical, scarcely curved or straight, apex blunt to obtuse, shorter than and diverging at approximately a right angle from the lower corolla lobe. Capsule globose, c. 4 mm diameter. Seeds obovoid, 0.5 mm long. Flowering and fruiting Nov.-Apr., opportunistically throughout the year outside Tas.

Tas. (BEL, FUR, KIN, TCH, TNM, TNS, TSE, TSR, TWE); also Vic, NSW, SA, Qld., WA. Widespread and locally abundant in the margins of permanent or seasonal wetlands, such as lake and creek edges, roadside ditches and freshwater coastal lagoons, often emergent from water up to 30 cm deep. Found from sea level to c. 1,200 m. *Utricularia dichotoma* is a complex and highly variable species, many forms of which have been described as separate taxa. In the broad sense, *U. dichotoma* includes *U. monanthos* Hook.f. (Reut and Fineran 1999), as well as *U. novae-zelandiae* Hook.f. from New Zealand. In Tasmania, *U. dichotoma* often grows sympatrically with *U. monanthos* without intermediate forms, so both are here treated as distinct species.

3 Utricularia uniflora R.Br., Prodr. Fl. Nov. Holland. 431 (1810) Utricularia dichotoma var. uniflora (R.Br.) Benth. Fl. Austral. 4: 529 (1868). Single bladderwort

Illustrations: Blombery, What Wildflower is that? 278, fig. 734 (1973, as U. dichotoma); Taylor, Gen. Utricularia, 120, fig. 14 (1989); Rowe & Brown., Fl. New South Wales 3: 601 (1992); Jeanes, Fl. Victoria 4: 550, fig. 106d (1999);

Perennial, terrestrial stoloniferous herb. Underground, branched capillary stolons to 0.2 mm diameter. Rhizoids simple, capillary, 0.1 mm diameter and a few mm long. Leaves petiolate, entire, arising from nodes in the underground stolon; lamina obovate with rounded apex, 1-nerved, 4–8 mm long 1–2 mm wide. Traps few, arising from the stolon nodes, stalked, 0.8–1.5 mm diameter. Inflorescence erect, solitary, with a single flower or rarely an opposite pair, (5–)10–20(–30) cm high, peduncle terete, 0.5 mm diameter, glabrous; sterile bracts absent, fertile bracts and bracteoles c. 3 mm long, narrowly ovate with apex acute and rounded base. Flowers pedicellate, pedicels erect, capillary, terete 0.2–1.0 cm long and 0.1–0.2 mm diameter. Calyx lobes 2, unequal, ovate or broadly ovate, 3–6 mm long, the upper with apex rounded, the lower shorter with apex truncate to emarginate. Corolla pink or mauve or lilac, rarely white, 5–10 mm long, 8–14 mm wide; upper lip constricted in the middle, with emarginate apex; lower lip deltoid, entire or shallowly 3-lobed, sometimes with the sides reflexed; central pair of yellow ridges extending distally from lower corolla throat exactly the same length as surrounding parallel ridges; corolla spur cylindrical, straight, at a right angle to the lower lip, apex rounded. Capsule globose, c. 3mm diameter. Seeds obovoid to ellipsoid, 0.3–0.4 mm long. Flowering and fruiting Dec.–Mar.

Tas. (TWE, TSR); also Vic., NSW, Qld. Widespread but local in wet areas in the western half of the state, to c. 500 m a.s.l. It seems to tolerate shadier locations than *U. dichotoma*, but is less commonly found in standing water. *Utricularia uniflora* resembles *U. dichotoma* in many aspects, but its flowers are more commonly in pink hues (*U. dichotoma* flowers are usually distinctly purple), and easily differentiated by the yellow ridges extending from the corolla throat, of which there are three in *U. dichotoma*, longer than the surrounding ridges, and only two in *U. uniflora*, which extend only as long as the surrounding ones. Because Bentham (1869, p.529) considered this species to be a variety of *U. dichotoma*, single-flowered specimens of *U. dichotoma* (which are common) have historically been misclassified as *U. dichotoma* var. *uniflora*, causing some taxonomic confusion when the taxon was restored to a valid species by Taylor (1989, p. 119).

4 Utricularia lateriflora R.Br., Prodr. Fl. Nov. Holland. 431 (1810)

Tiny bladderwort

Illustrations: Taylor, *Fl. S. Austral*. [J.M. Black] ed. 4, 3: 1323, fig. 607C (1986); Taylor, *Gen. Utricularia*, 181, fig. 40 (1989); Rowe & Brown, *Fl. New South Wales* 3: 600 (1992); Jeanes, *Fl. Victoria* 4: 550, fig. 106f (1999);

Small perennial stoloniferous herb. Underground vegetative stolons few, deep, filiform, to 0.2–0.4 mm diameter. Rhizoids few, simple, capillary, up to 0.2 mm diameter, 2 cm long. Leaves few, petiolate, entire, arising from the underground stolon; lamina narrowly obovate; apex rounded, up to 5 cm long and 0.5 mm wide. Traps numerous, arising from the stolons, rhizoids and petioles, stalked, ovoid, up to 0.7 mm diameter. Inflorescence erect, normally solitary but sometimes 2–3 together, racemose, bearing 1–4(–10) alternate flowers; peduncle angular, (1–)2–9(–16) cm long, 0.3–0.6 mm diameter; sterile bracts numerous; fertile bracts ovate to narrowly ovate, 1 mm long; bracteoles longer and linear. Flowers distant; pedicels erect, filiform, 0.5 mm long. Calyx lobes 2, subequal, c. 2 mm long, the upper elliptic, the lower ovate. Corolla pale lilac to mauve, occasionally white, 3–6(–8) mm long, 3–6 mm wide; upper lip truncate or emarginate; lower lip inflated, approximately circular; corolla spur conical, apex bidentate, curved forwards and normally as long as or slightly longer than the lower corolla lip. Capsule globose, 2–3 mm long. Flowering and fruiting (Oct.–)Nov.–Mar.(–May), opportunistically throughout the year outside Tas.

Tas. (BEL, FUR, KIN, TNM, TNS, TSE, TSR, TWE); also Vic., SA, NSW, Qld. Common in lowland localities to c. 500 m, usually in wet sandy and peaty soils, though it can tolerate seasonally dry conditions. A form with a single, terminal flower, which is wider and overall larger than normal, and resembles *U. simplex* (a species only found in WA), is common in the Bass Strait islands and the West Coast, and has previously been misidentified in Tasmania as *U. violacea*. The easiest way to discriminate *U. violacea* and *U. lateriflora* is by the presence of sterile bracts on the peduncle below the lowermost flower in *U. lateriflora*, but not in any other terrestrial *Utricularia* in Tasmania.

5 Utricularia monanthos Hook.f., Bot. Antarct. Voy. III. (Fl. Tasman.) 1: 299 (1857) Mountain bladderwort

Illustrations: Taylor, Gen. Utricularia, 118, fig. 13 (1989); Rowe & Brown, Fl. New South Wales 3: 601 (1992); Jeanes, Fl. Victoria 4: 550, fig. 106h (1999); Corrick & Fuhrer, Wildflowers of Victoria, 127, fig. 449 (2008).

Very small perennial stoloniferous herb, terrestrial or sometimes in running or stagnant water, or as a floating mat. Underground vegetative stolons capillary, branching, up to 0.5 mm diameter. Rhizoids simple, capillary, tapering down from 0.2 mm diameter. Leaves rosulate and arising from underground stolon nodes, petiolate; lamina spathulate to very narrowly elliptic; apex rounded, up to 3 cm long and 1 mm wide. Traps on stolons only, globose, numerous, stalked, 1–5 mm long. Inflorescence erect, solitary, bearing a single flower or an opposite pair; peduncle 1–4(–6) cm high, 0.5–1.0 mm diameter, terete; sterile bracts absent, fertile bracts and bracteoles narrowly ovate with apex acute, 1.5 mm long; pedicels 2–5 mm long, erect, filiform. Calyx lobes 2, unequal, the upper 3 mm long, broadly oblong, the lower broader and shorter. Corolla purple to violet, rarely white, 5–10 mm long, 4–8 mm wide; upper lip constricted in the middle, apex emarginate; lower lip rounded, angled c. 45° to the ground, apex entire or very slightly 3-lobed, with three parallel yellow ridges that extend distally from the corolla throat, and reach beyond the limit of the surrounding ridges (which are concolorous with the lower corolla lobe); corolla spur broadly conical with an obtuse apex, shorter than the lower corolla lip. Capsule globose, 2.5–4.0 mm in diameter. Seeds obovoid, c. 0.5 mm long. Flowering Dec.–Mar., fruits maturing 3–4 weeks later.

Tas. (BEL TCH TSE TSR TWE); also Vic., NSW, New Zealand. Sea level to c. 1,200 m. Mostly a highland species, found growing in very wet environments, such as the edges of alpine lakes, bogs and seeps, and also roadside ditches; *Utricularia monanthos* can grow as a floating mat on stagnant water. It can occasion-ally be found in lowland situations in the western half of Tasmania. There is some degree of uncertainty about the taxonomic placement of this plant; it is traditionally considered a distinct species from *Utricularia dichotoma*, and in Tasmania the two often grow sympatrically and remain distinct without clear intermediate forms. However, recent taxonomic and molecular analyses have suggested that *U. monanthos* (and the closely related *U. novae-zelandiae* from New Zealand) are genetically indistinguishable from, and should be considered synonymous with *U. dichotoma* (Reut & Fineran 1999; Reut & Fineran 2000; Reut & Jobson 2010).

6 Utricularia tenella R.Br., Prodr. Fl. Nov. Holland. 432 (1810)

Pink bladderwort

Vesiculina tenella (R.Br.) Raf., Fl. Tellur. 4: 109 (1838); Polypompholyx tenella (R.Br.) Lehm., Bot. Zeitung (Berlin) 2: 109 (1844). Tetralobus pusillus A.DC., Prodr. (DC.) 8: 667 (1844). Polypompholyx exigua F.Muell., Hooker's J. Bot. Kew Gard. Misc. 8: 203 (1856).

Illustrations: Taylor, Fl. S. Austral. [J.M. Black] ed. 4, 3: 1323, fig. 607D (1986); Taylor, Gen. Utricularia: 81, fig. 1 (1989); Jeanes, Fl. Victoria 4: 550, fig. 106c (1999); Wheeler, Marchant & Lewington, Flora of the South West 2: 653 (2002); Whiting et al., Tasmania's Natural Flora, ed. 1, 256 (2004); Corrick & Fuhrer, Wildflowers of Victoria: 128, fig. 450 (2008)

Very small annual rosulate herb. Underground vegetative stolons absent. Rhizoids capillary, simple, 0.1–0.2 mm diameter and up to 1 cm. long. Leaves petiolate, entire, exclusively rosulate; lamina narrowly obovate, 0.3–1.0 cm long and 0.5–1.5 mm wide; apex rounded. Traps numerous, from the peduncle base, long stalked and ovoid, 1.0–1.2 mm long. Inflorescence erect, solitary or 2–3 together, racemose with 1–3 flowers; peduncle (1.5–)2.5–6(–8) cm tall, 0.3–0.7 mm diameter, filiform and terete; sterile bracts absent, fertile bracts and bracteoles similar, ovate with apex obtuse to subacute, 0.5–1.0 mm long; pedicels erect, filiform, 1–4 mm long. Calyx 4-lobed, lobes slightly unequal, 1.5 mm long, the upper obovate-oblong with rounded apex, the lower ovate with apex emarginate. Corolla pink, 3–6(–7) mm long and wide; upper lip deeply divided into 2 acute lobes; lower lip deeply divided into 3 oblong to linear lobes with rounded apices; corolla spur cylindrical to narrowly conical, straight or slightly curved forward, apex rounded. Capsule globose, 1.5–2.0 mm diameter. Seeds globose, c. 0.3 mm diameter. Flowering Sep.–Nov., fruiting a month later.

Tas. (FUR, KIN); also Vic., SA, WA. A rare herb of limited distribution in the Bass Strait islands and the far northeast, it can be locally abundant within its range. Grows predominantly in wet sandy and peaty soils in heath at low altitudes, up to approximately 100 m.

7 Utricularia violacea R.Br., Prodr. Fl. Nov. Holland. 431 (1810)

Illustrations: Taylor, Fl. S. Austral. [J.M. Black] ed. 4, 3: 1323, fig. 607E (1986); Taylor, Gen. Utricularia, 107, fig. 9 (1989); Jeanes, Fl. Victoria 4: 550, fig. 106g (1999); Wheeler, Marchant & Lewington, Flora of the South West 2: 652 (2002);

Very small annual, terrestrial rosulate herb. Underground vegetative stolons absent. Rhizoids numerous, simple, capillary, 0.2 mm diameter and c. 1 cm long. Leaves petiolate, entire, rosulate, narrowly linearcuneate, up to 1.2 cm long and 0.5 mm wide, 1-nerved; apex rounded. Traps numerous, from the stem, obliquely ovoid, mostly stalked, 1–2 mm long. Inflorescence erect, solitary or up to 4 together, single flowered; peduncle terete, 2–5 cm long, 0.3–0.5 mm diameter; sterile bracts absent, fertile bracts and brac-teoles similar, c. 1.5 mm long, ovate to narrowly ovate, apex acute, antapex rounded; pedicel filiform, narrowly winged, 1–4 mm long. Calyx lobes 2, subequal, 1.5–2.5 mm long, circular to broadly ovate. Corolla violet with a yellow part in the centre of the lower lip and three darker violet lines, 4–8 mm long and wide; upper lip constricted near the middle, the top strongly bilobed with rounded lobes; lower lip shallowly to markedly 3-lobed, the mid lobe wider. Corolla spur cylindrical with a conical base, c. twice as long as the lower lip; apex rounded or slightly emarginate. Capsule globose, 1.5–2.0 mm diameter. Seeds ovoid, c. 0.3 mm long. In Tasmania only seen flowering in Oct., elsewhere in its range Sep.–Dec.

Tas. (FUR); Also Vic., SA., WA. In Tasmania, known only from Flinders Island. It grows in peat, sand or clay in wet soils and swamps near the coast.

8 Utricularia barkeri R.W.Jobson., Telopea 15: 127-142 (2013)

Illustrations: Jobson, Telopea 15 134, fig. 3; 137, figs e, f (2013).

Perennial, terrestrial stoloniferous herb. Underground vegetative stolons few, filiform, unbranched, to 0.5 mm diameter and 100 mm long. Rhizoids simple, capillary, from the base of peduncle and from stolon nodes, to 2 cm long, 0.2-0.4 mm diameter. Leaves few, petiolate, entire, some arising from the base of the peduncle, and one or two from stolon internodes; lamina linear to narrowly obovate, 3-12 mm long and 0.2-0.6 mm wide, with a single nerve, apex rounded, sometimes subulate. Traps at base of the stalk and stolon nodes, stalked, 1-2 mm long. Inflorescence erect, solitary, bearing one flowers in an opposite pair, sometimes 2 or 3; peduncle terete, 8-25 cm long, 0.5-1.5 mm diameter; sterile bracts absent; fertile bracts and bracteoles similar, c. 1.1 mm long, attached near the middle, upper and lower parts approximately of equal length, upper narrowly oblong to ovate, lower truncate; pedicels erect, filiform, up to 3-7 mm long. Calyx lobes 2, almost equal, the upper ovate with apex rounded, c. 2.5 mm long and wide, the lower ovate with apex truncate, c. 2.5 mm long and wide. Corolla mauve, 5-12 mm long, upper lip constricted in the middle, apex rounded or emarginate; lower lip spreading horizontally or angled at a plane 45° to the peduncle, rounded to noticeably 3-lobed, with three conspicuous yellow ridges that don't protrude distally beyond surrounding, parallel, purple ones; corolla spur cylindrical, straight, apex emarginate, shorter than and diverging at approximately a right angle from the lower corolla lobe. Capsule globose, 3.0-3.5 mm diameter. Seeds obovoid, 0.5 mm long. Flowering Nov.-Jan., fruiting approximately a month later.

Tas. (FUR, KIN, TWE); also Vic, SA. Occasional in the western half of the state at lower altitudes, known only from a few collections and recently described in 2013. It is closely related to *U. dichotoma*, and can be distinguished from that species by its mauve corolla, purple-flecked upper corolla lobe, and the shape of its bracts. These are attached near the middle with approximately equal-sized halves in *U. barkeri*, and attached near the base with a gibbous lower lobe in *U. dichotoma*.

REFERENCES

ALA (Atlas of Living Australia) http://www.ala.org.au/

APC (Australian Plant Census) https://biodiversity.org.au/nsl/services/apc

APNI (Australian Plant Name Index) https://biodiversity.org.au/nsl/services/apni

AVH (Australia's Virtual Herbarium) (Council of Heads of Australasian Herbaria) http://avh.chah.org.au/

Violet bladderwort

Bentham G (1869) Lentibularieae. Flora Australiensis 4 523-533.

Cronquist A (1981) An Integrated System of Classification of Flowering Plants. (Columbia University Press: New York)

Curtis WM (1967) 72. Lentibulariaceae. The Student's Flora of Tasmania 3 534-537.

IPNI (International Plant Name Index) http://www.ipni.org or http://www.us.ipni.org

- Jobson RW, Playford J, Cameron KM, Albert VA (2003) Molecular phylogenetics of Lentibulariaceae inferred from plastid *rps*16 intron and *trnL*-F DNA sequences: Implications for character evolution and biogeography. *Systematic Botany* **28**(1), 157–171.
- NVA (Natural Values Atlas) (Department of Primary Industries and Water: Hobart) https://www.naturalvaluesatlas.tas.gov.au/
- Reut MS, Fineran BA (1999) An evaluation of the taxonomy of *Utricularia dichotoma* Labill., *U. monanthos* Hook.f., and *U. novae-zelandiae* Hook.f. (Lentibulariaceae). *New Zealand Journal of Botany* **37**(2), 243–255.
- Reut MS, Fineran BA (2000) Ecology and vegetative morphology of the carnivorous plant Utricularia dichotorna (Lentibulariaceae) in New Zealand. New Zealand Journal of Botany **38**(3), 433–450.
- Reut MS, Jobson RW (2010) A phylogenetic study of subgenus *Polypompholyx*: a parallel radiation of *Utricularia* (Lentibulariaceae) throughout Australasia. *Australian Systematic Botany* **23**(3), 152–161.

Stevens PF (2008) Angiosperm Phylogeny Website. Version 9, June 2008. http://www.mobot.org/MOBOT/research/APweb

Taylor P (1989) The genus Utricularia - a taxonomic monograph. (Royal Botanic Gardens, Kew: London)

NOTE: Web addresses can and do change: a list of current web addresses is maintained in the web version of this treatment on the *Flora of Tasmania Online* website at http://flora.tmag.tas.gov.au/

INDEX

В	
Bladderwort	3
F	
Fairy's aprons	3
L	
Lamiales	1
Lentibulariaceae	1
Μ	
Mountain bladderwort	4
Р	
Pinguiculaceae	1
Pink bladderwort	5
Pleiochrasia	1
Pleiochrasia dichotoma	3
Polypompholyx	1
Polypompholyx exigua	5
Polypompholyx tenella	5
S	
Scrophulariaceae	1
Single bladderwort	3
т	
Tetralobus pusillus	5
Tiny bladderwort	4
U	
Utricularia	1, 4

Utricularia australis	2
Utricularia barkeri	2, 6
Utricularia billardieri	3
Utricularia dichotoma	2, 3, 4-6
Utricularia dichotoma var. dichotoma	3
Utricularia dichotoma var. typica	3
Utricularia dichotoma var. uniflora	
Utricularia flexuosa	2
Utricularia lateriflora	4
Utricularia linearifolia	3
Utricularia monanthos	2, 3, 4, 5
Utricularia moorei	3
Utricularia novae-zelandiae	3, 5
Utricularia oppositiflora	3
Utricularia simplex	4
Utricularia speciosa	3
Utricularia tenella	5
Utricularia uniflora	2, 3, 4
Utricularia violacea	4, 6
Utricularia vulgaris	2
Utriculariaceae	1
V	
Vesiculina tenella	5
Violet bladderwort	6
Y	
Yellow bladderwort	2