Six new species of triggerplant (*Stylidium*: Stylidiaceae) from south-west Western Australia

Allen Lowrie[1] and Kevin F. Kenneally[2]

[1]6 Glenn Place, Duncraig, Western Australia 6023
[2]Science Publications Unit, Corporate Relations Division, Department of Conservation and Land Management, Locked Bag 104, Bentley Delivery Centre, Western Australia 6983

Abstract

Lowrie, A. and Kenneally, K.F. Six new species of triggerplant (*Stylidium*: Stylidiaceae) from south-west Western Australia. Nuytsia 11(2): 185-198 (1997). Six new *Stylidium* species from the south-west of Western Australia, *Stylidium burbidgeanum, S. glabrifolium, S. kalbarriense, S. torticarpum, S. tylosum* and *S. udusicola* Lowrie & Kenneally, are described and illustrated. Three of these species have conservation priority.

Introduction

Six miscellaneous new species of triggerplant (*Stylidium*: Stylidiaceae) from the south-west of Western Australia are described and illustrated. They belong to the following subgeneric and sectional classifications as devised by Mildbraed (1908): *Stylidium burbidgeanum* belongs to subg. *Nitrangium* Endl. sect. *Thyrsiformia* (Benth.) Mildbr.; *S. udusicola* belongs to subg. *Tolypangium* Endl. sect. *Despecta* Mildbr.; and *S. glabrifolium, S. kalbarriense* and *S. torticarpum* belong to subg. *Tolypangium* Endl. sect. *Saxifragoidea* Mildbr.

Taxonomy

Stylidium burbidgeanum Lowrie & Kenneally, *sp. nov.* (Figure 1)

S. neglecto Mildbr. affini sed foliis *c.* 15 mm longis, hypanthio *c.* 6 mm longo, sepalis 5 ad basim omnino discretis, corolla *c.* 11 mm lata, et appendicibus lateralibus labelli carentibus differt.

Typus: On Watheroo road, 2 km east of Brand Highway, Western Australia, 30° 21'S, 115° 30' E, 27 October 1989, *A. Lowrie* 296 (*holo*: PERTH 04431308; *iso:* MEL).

Creeping *perennial herb* with 2-4 (sometimes more) leafy major axes up to 6 cm long arising from bulb-like bases of the old tufts elevated up to 5 cm above the soil surface by wiry prop roots; lower leaves

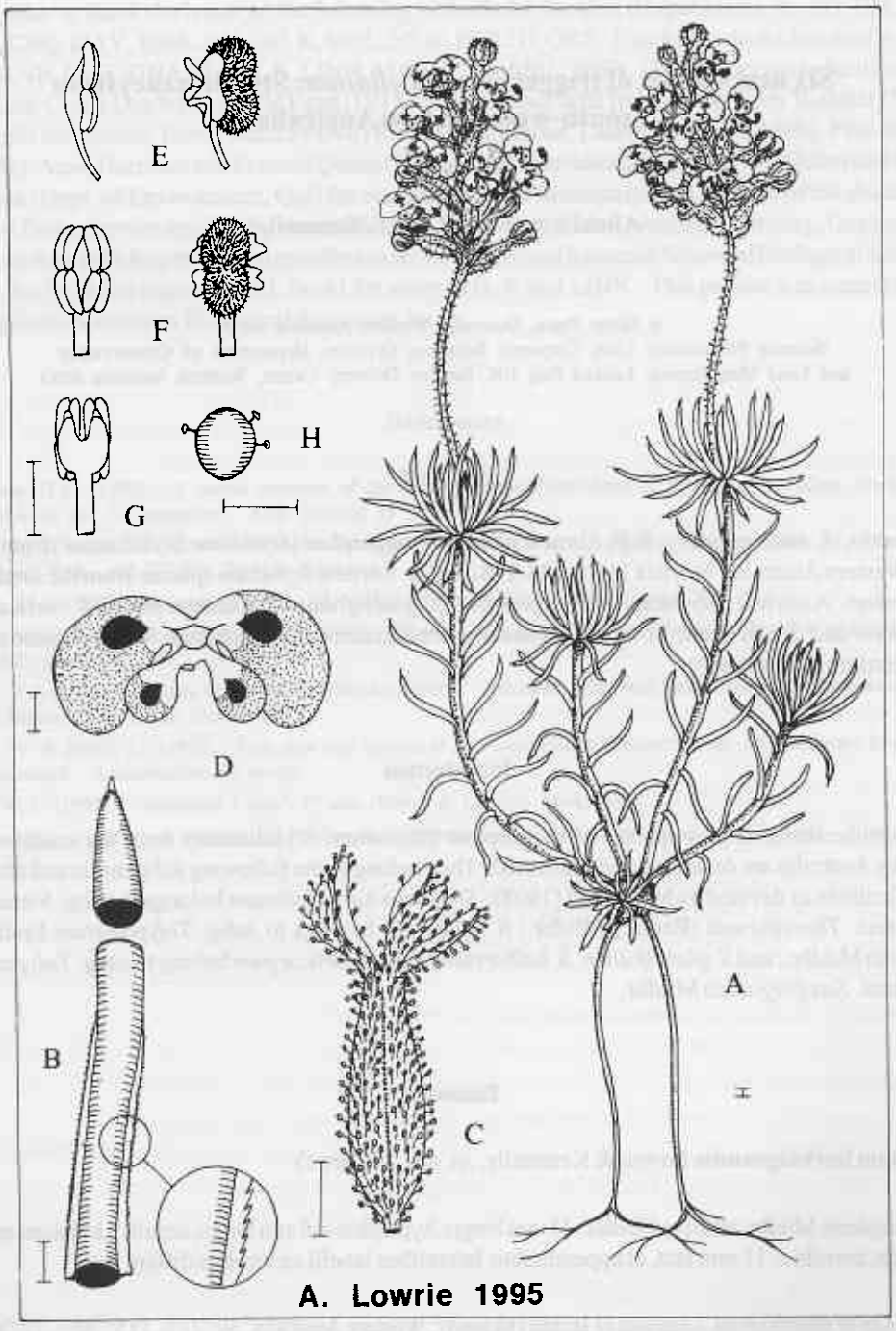

Figure 1. *Stylidium burbidgeanum* A - habit of flowering plant; B - leaf; C - hypanthium and sepals; D - corolla; E - lateral view of gynostemium tip (with stigma at right); F - front view of gynostemium tip (with stigma at right); G - back of gynostemium; H - labellum. Scale bar = 1 mm.

scattered along the major axis; upper leaves in a terminal tuft, each with a small apical (not sharp) projection. *Leaves* linear, 5-15 (mostly 10-12) mm long, 1-1.2 mm wide, terete in the upper part, semiterete in the lower part with margins hyaline, minutely serrate, non-mucronate at first, becoming mucronate at anthesis. *Inflorescence* a dense spike, to 5 cm high (including the scape), densely covered with long and short glandular hairs; bracts, linear, 3-4 mm long; bracteoles 2-2.5 mm long. *Hypanthium* lanceolate, figure 8-shaped in section, sessile, *c.* 6 mm long, *c.* 1.8 mm wide at the base, *c.* 1 m wide at the apex, covered with dense glandular hairs. *Sepals* 5, all free to the base, *c.* 2 mm long. *Corolla* predominantly pink, lobes laterally paired; anterior lobes obovate, *c.* 2.5 mm long, *c.* 1.5 mm wide; posterior lobes obovate, curved, *c.* 5.5 mm long, *c.* 2.7 mm wide; abaxial surface very pale pink, sparsely glandular. *Throat* and petal bases white, with a purple mark between the white and the pink zones of each corolla lobe; appendages absent. *Labellum* boss attached to the base of the corolla tube sinus, round, *c.* 0.8 mm long, *c.* 0.7 mm wide, without basal appendages, margins near the base with a few glandular hairs. *Gynostemium c.* 5 mm long; anthers green with grey pollen, with a few short marginal translucent-white moniliform hairs; stigma elliptic, cushioned, *c.* 1.1 mm long, *c.* 0.6 mm wide. *Capsule c.* 7 mm long. *Seeds* unknown.

Other specimen examined. WESTERN AUSTRALIA: South end of Banovich Rd, first creek crossing *c.* 2.5 km N of the Jurien Bay road, 30° 12' S, 115° 12' E, 27 Nov. 1988, *A. Lowrie s.n.* (PERTH).

Distribution and habitat. Known from two regions of south-western Australia, Kalbarri National Park and the area from Badgingarra and Mt Lesueur north-east to the Green Head road. Grows in loamy soil on winter-wet creek margins and adjacent watersheds and in white silica sand in winter-wet depressions.

Flowering period. October-November.

Conservation status. This species occurs in two widely separated regions, neither of which is under threat.

Etymology. The epithet, *burbidgeanum* is in honor of Dr Allan Burbidge, Principal Research Scientist, CALM, who first discovered this species north-east of Mt Lesueur.

Affinities. The nearest relative to *Stylidium burbidgeanum* is *S. neglectum* Mildbr. From *S. neglectum*, *S. burbidgeanum* differs in having leaves *c.* 15 mm long, hypanthum *c.* 6 mm long, 5 sepals all free to the base, corolla *c.* 11 mm wide, and labellum without lateral appendages.

Stylidium glabrifolium Lowrie & Kenneally, *sp. nov.* (Figure 2)

S. lineato Sond. affinis sed foliis et scapis glaberrimis differt.

Typus: On Great Northern Highway, between Bindoon and New Norcia [precise locality withheld], Western Australia, 26 October 1991, *A. Lowrie* 429 (*holo:* PERTH 04452437; *iso*: MEL).

Perennial herb; rhizome short, often supporting more than one leafy rosette; leaves deciduous during dormancy but a central compact cluster of small fleshy scale-like juvenile leaves is retained. *Leaves* basal, appressed to the soil, elliptic-spathulate, narrowing into a petiole, thin coriaceous, striate with flabellate venation; lamina 6-18 (mostly *c.* 10) mm long, 5-9 (mostly *c.* 8) mm wide, margins very finely hyalined translucent-white, not scarious; petiole linear, *c.* 8 mm long. *Inflorescence* an unbranched raceme, 19-40 cm high (including the scape); scape with appressed alternate linear bracts 3-6 mm long,

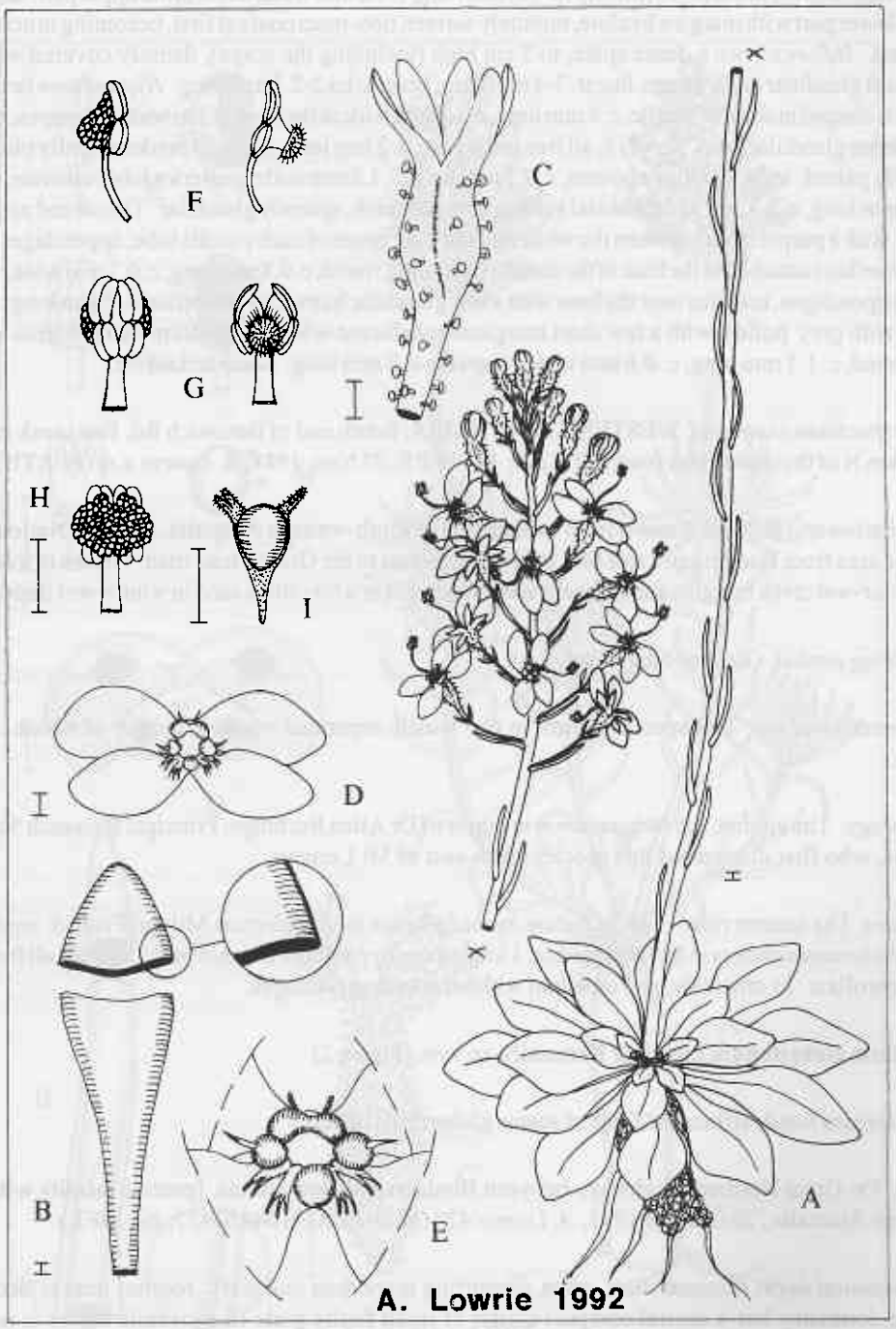

Figure 2. *Stylidium glabrifolium* A - habit of flowering plant; B - leaf; C - hypanthium and sepals; D - corolla; E - throat appendages, enlarged; F - lateral view of gynostemium tip (with stigma at right); G - front view of gynostemium tip (with stigma at right); H - back of gynostemium; I - labellum. Scale bar = 1 mm.

glabrous; bracts, linear, 2.5-4 mm long, glabrous; pedicels 8-14 (mostly 8-10) mm long, distally glandular; bracteoles narrowly ovate, 1-2 mm long, glabrous. *Hypanthium* clavate, *c.* 2 mm long, *c.* 1.5 mm diam. at anthesis, with sparse glandular hairs. *Sepals* 5, all free to the base, elliptic, obtuse, *c.* 3 mm long, glabrous. *Corolla* predominantly pale yellow fading quickly to creamy white, lobes laterally paired; anterior lobes elliptic, *c.* 6.3 mm long, *c.* 3 mm wide; posterior lobes elliptic, *c.* 6 mm long, *c.* 3 mm wide; abaxial surface colouring similar to adaxial surface, glabrous. *Throat* pale green, appendages 6, *c.* 0.7 mm long, entire and bi- (sometimes tri-) furcate, blackish maroon, reddish at base, with 3 mound-like silvery appendages with a yellow margin; bordering the throat near the labellum but hidden by the gynostemium in the set position is a smooth pale green swelling. *Labellum* boss attached to the base of the corolla tube sinus, pale green, ovate, *c.* 0.8 mm long, *c.* 0.7 mm wide; basal appendages yellow, *c.* 0.3 mm long, papillose; apical point yellow, *c.* 0.7 mm long; corolla tube *c.* 1 mm long. *Gynostemium* *c.* 6 mm long; anthers pale yellow, pollen yellow; stigma *c.* 0.5 mm diam., mushroom-like, *c.* 0.5 mm long. *Capsule* unknown. *Seeds* unknown.

Distribution and habitat. Known only from the type location north of Bindoon in south-western Australia. Grows in clayey sand amongst small, scattered flat granitic alluvial rocks in a watershed surrounded by laterite soils and *Eucalyptus wandoo* forest.

Flowering period. October.

Chromosome number. n = 14 (*A. Lowrie* 429).

Conservation status. CALM Conservation Codes for Western Australian Flora: Priority Two. This species is only known from one small location bordering a rehabilitated gravel pit on a flora reserve.

Etymology. From the Latin *glabri* - glabrous and *folium* - leaf, in reference to the smooth leaves.

Affinities. The nearest relative to *Stylidium glabrifolium* is *S. lineatum* Sond. From *S. lineatum*, *S. glabrifolium* differs by having glabrous leaves and scape, hypanthium with sparse glandular hairs, entire and bi- (sometimes tri-) furcate blackish-maroon throat appendages, and 3 mound-like silvery light-reflecting appendages.

Notes. The pale yellow flowers of *Stylidium glabrifolium* bear throat appendage projections as well as silvery mirror-like mounds. Similar mirror-like mounds have also been discovered in *S. squamellosum* DC., *S. cymiferum* Lowrie & Carlquist and *S. tylosum*.

The mirror-like mounds are convex and so reflect sunlight regardless of the sun's position throughout the day. The sunlight reflection signals are further enhanced by flashing as the flowers quiver even in the lightest breeze. The glistening mounds contain no nectar but act as a ruse to entice any flying insects that might act as pollinators. This deception is not without reward as nectar is available to the pollinator within the corolla tube. This nectar reward ensures the pollinator is deceived more than once, permitting cross-pollination.

Stylidium kalbarriense Lowrie & Kenneally, *sp. nov.* (Figure 3)

S. macrocarpo (Benth.) Erickson and Willis affini sed mucrone unguiformi ad apicem foliorum adultorum affixo, marginis lateralibus laevibus albis, carina minute serrata, sepalis glandulosis, stigmate duplo-tumidiformi, capsula glandulosa nec leviter convoluta differt.

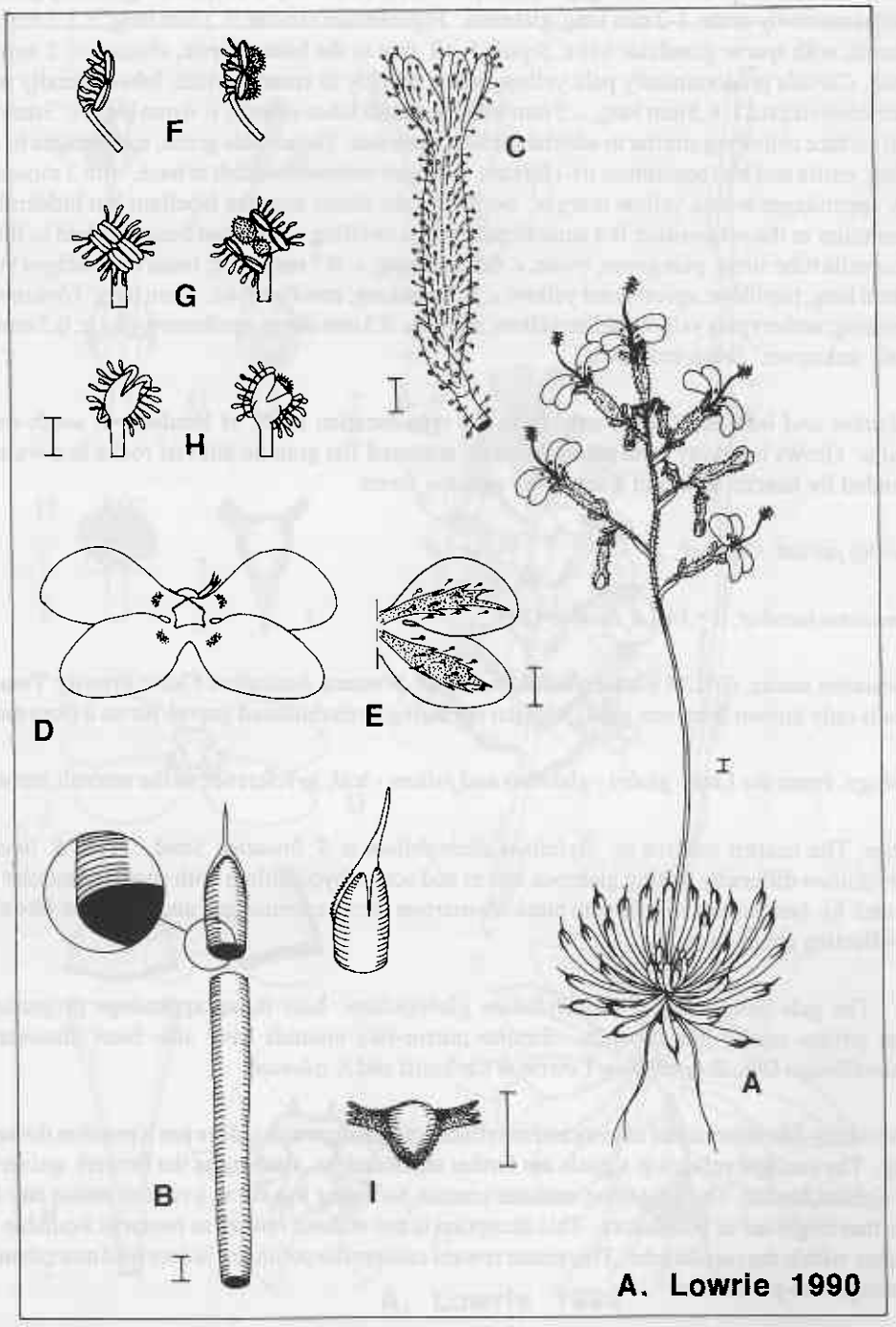

Figure 3. *Stylidium kalbarriense* A - habit of flowering plant; B - leaf, enlarged section left, enlarged lateral view of leaf tip, mucro and 3-lobed claw-like attachment, right; C - hypanthium and sepals; D - corolla; E - abaxial surface of corolla; F - lateral view of gynostemium tip (with stigma at right); G - front view of gynostemium tip (with stigma grown out, right); H - back of gynostemium (with stigma at right); I - labellum. Scale bar = 1 mm.

Typus: 20 km east of Kalbarri, on Ajana-Kalbarri road, south side of road, Western Australia, 27° 46' S, 114° 18' E, 4 September 1992, *A. Lowrie* 638 (*holo*: PERTH 04452445; *iso*: MEL).

Perennial herb; stem short; leaves in a basal tuft at soil level or elevated above the soil surface by prop roots 1-1.5 cm long. *Leaves* oblanceolate, 1-4.5 (mostly 2.5-3) cm long, terete in section, 1-1.7 mm wide, with a white mucro 1 mm long, subterminally attached, becoming claw-like in adult leaves by its 2 smooth lateral white hyaline margins and a minutely serrate keel. *Inflorescence* 1-4, the central inflorescence dominant and up to 12 cm high (including the scape), when more than one arising from the basal tuft of leaves; lateral inflorescences when present of a lesser height; scape glabrous; inflorescence glandular, of cymose branches with 2-3 flowers; bracts linear with an apical mucro, 2-3 mm long. *Hypanthium* lanceolate, pedicellate, 6.5-10 mm long, *c.* 1.2 mm wide, figure 8-shaped in section, glandular. *Sepals* 5, all free to the base, 2-2.5 mm long. *Corolla* predominantly white, lobes laterally paired, anterior lobes obovate-elliptic, *c.* 3.8 mm long, *c.* 2.3 mm wide; posterior lobes obovate, *c.* 4 mm long, *c.* 2.3 mm wide; abaxial surface of each lobe white with a distinctive dark red wine-coloured and glandular oblanceolate serrate margined zone along the mid vein. *Throat* white, bordered by reddish marks; appendages absent. *Labellum* boss attached to the base of the corolla tube sinus, green, ovate, *c.* 0.7 mm long, *c.* 0.7 mm wide; basal appendages dark red, *c.* 0.6 mm long, *c.* 0.3 mm wide, distally 3-lobed, papillose, margins and apex dark red, beard-like, papillose, corolla tube *c.* 1.5 mm long. *Gynostemium* *c.* 9.5 mm long; anthers green; pollen white, with marginal translucent-white moniliform hairs; stigma a double dome-like projection, *c.* 1 mm long, *c.* 0.4 mm wide. *Capsule c.* 1.5 cm long, not twisted at maturity. *Seeds* orange, *c.* 0.5 mm long.

Other specimen examined. WESTERN AUSTRALIA: Murchison Gorge, 30 Aug. 1984, *R. Bates* 3894 (PERTH); Kalbarri, 15 Aug. 1966, *R. Erickson s.n.* (PERTH); Kalbarri-Adjana Rd, 8 Sep. 1966, *R. V. Smith* 66/375 (MEL, PERTH); on the road to The Loop, Kalbarri National Park, 8 Aug. 1990, *A. Lowrie s.n.* (PERTH).

Distribution and habitat. Occurs in the Kalbarri National Park region of south-western Australia, on pale yellow sandy soils in heathland.

Flowering period. August-September.

Conservation status. Common in Kalbarri National Park and not under threat.

Etymology. The epithet, *kalbarriense* refers to the Kalbarri region where this species occurs.

Affinities. The nearest relative to *Stylidium kalbarriense* is *S. macrocarpum* (Benth.) Erickson & Willis. From *S. macrocarpum*, *S. kalbarriense* differs by having glandular sepals, all free to the base, the stigma a double dome-like projection and the capsule glandular and not twisted.

Stylidium torticarpum Lowrie & Kenneally, *sp. nov.* (Figure 4)

Species capsula matura valde torsiva congeneribus diversa.

Typus: South end of Banovich Rd, 0.1 km south of the creek crossing, Mt Lesueur region, Western Australia, 18 October 1991, *A. Lowrie* 414 (*holo*: PERTH 04452461; *iso:* MEL).

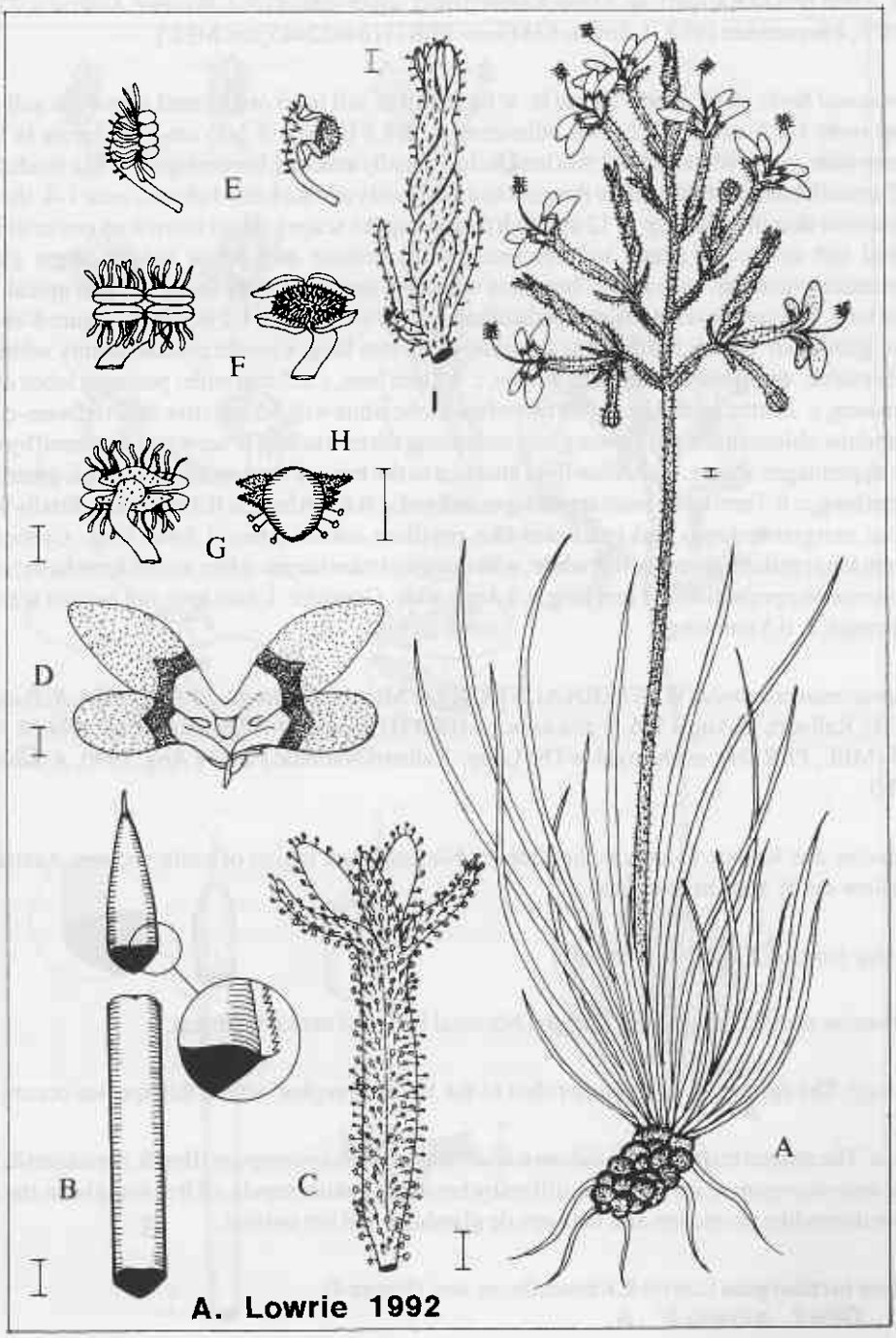

Figure 4. *Stylidium torticarpum* A - habit of flowering plant; B - leaf; C - hypanthium and sepals; D - corolla; E - lateral view of gynostemium tip (with stigma at right); F - front view of gynostemium tip (with stigma at right); G - back of gynostemium; H - labellum; I - seed capsule showing the 360° twisting at maturity. Scale bar = 1 mm.

Perennial herb; rhizome short, thick and densely leafy. *Leaves* basal, narrowly linear, 3-10 (mostly 9) cm long, 1-1.5 mm wide, triangular in section; margins hyaline white and minutely serrate; apex with a red mucro *c.* 0.5 mm long. *Inflorescence* up to 20 cm high (including the scape), rose-coloured, densely glandular hairy throughout, simple only at tip but otherwise composed of cymose branches with 2-3 flowers; bracts, linear, 4-8 mm long. *Hypanthium* linear, sessile, *c.* 9 mm long, *c.* 1.2 mm diam, and not twisted at anthesis, densely covered with glandular hairs. *Sepals* 5, all free to the base, *c.* 3 mm long. *Corolla* predominantly pale or dark pink, lobes laterally paired; anterior lobes obovate, *c.* 4.5 mm long, *c.* 2.5 mm wide; posterior lobes oblanceolate, *c.* 5.5 mm long, *c.* 2.5 mm wide; abaxial surface pink, white at the base, glandular. *Throat* white, without appendages, bordered by a very dark pink margin. *Labellum* boss attached to the base of the corolla tube sinus, ovate, *c.* 1 mm long, *c.* 0.8 mm wide; basal appendages *c.* 0.5 mm long, papillose, margins towards the apex provided with a few glandular hairs, corolla tube *c.* 1.5 mm long. *Gynostemium* c. 9 mm long; anthers grey with blue-grey pollen, with marginal translucent-white moniliform hairs; stigma elliptic, cushion-like, *c.* 1.5 mm long, *c.* 1 mm wide. *Capsule* slightly twisted when juvenile, markedly twisted at maturity. *Seeds* dark brown, *c.* 0.8 mm long, minutely tuberculate.

Other specimens examined. WESTERN AUSTRALIA: Cockleshell Gully, 15 Nov. 1946, *C.A. Gardner* 8410 (PERTH); S end of Banovich Rd, 0.1 km S of creek crossing, Mt Lesueur region, 18 Oct. 1991, *A. Lowrie* 419 [in fruit] (PERTH); 3 km N on Banovich Rd from Jurien Rd, 27 Oct. 1989, *A. Lowrie s.n.* (PERTH); Arrowsmith River crossing on Robb Rd, 6.7 km E of Brand Highway, Shire of Three Springs, 28 June 1996, *A. Lowrie s.n.* (PERTH); *c.* 0.5 km N of Limpfield Farm gate, a few km E of Mazza Road on Marchagee Track, Herschell Range, Shire of Coorow, 30 Oct. 1996, *M. Hancock s.n.* (PERTH).

Distribution and habitat. Endemic to south-western Australia. Known only from two locations in the Mt Lesueur region on winter-wet creek margins and adjacent watersheds in red loam soil, one location in the Herschell Range east of Mt Lesueur, and one location along the Arrowsmith River north of Eneabba.

Flowering period. October.

Chromosome number. Stylidium torticarpum is a polyploid with n = 28 (*A. Lowrie* 414), compared to n = 14 (*A. Lowrie* 279) in *S. ricae*.

Conservation status. CALM Conservation Codes for Western Australian Flora: Priority Two. This species is known from two populations in the Mt Lesueur region, one location in the Herschell Range, and one location on the Arrowsmith River, all of which are not under threat.

Etymology. From the Latin *torti* - twisted and *carpum* - fruit, in reference to the markedly twisted seed capsule.

Affinities. The nearest relative to *Stylidium torticarpum* is *S. ricae* Carlquist. *S. torticarpum* differs from *S. ricae* in chromosome number and in the following morphological characters: leaves linear rather than oblanceolate, not channelled but triangular in sectional view, minutely serrate; inflorescence with cymose branches rather than simple; sepal apex obtuse rather than acute; and capsule markedly twisted *c.* 360° rather than slightly twisted *c.* 90°.

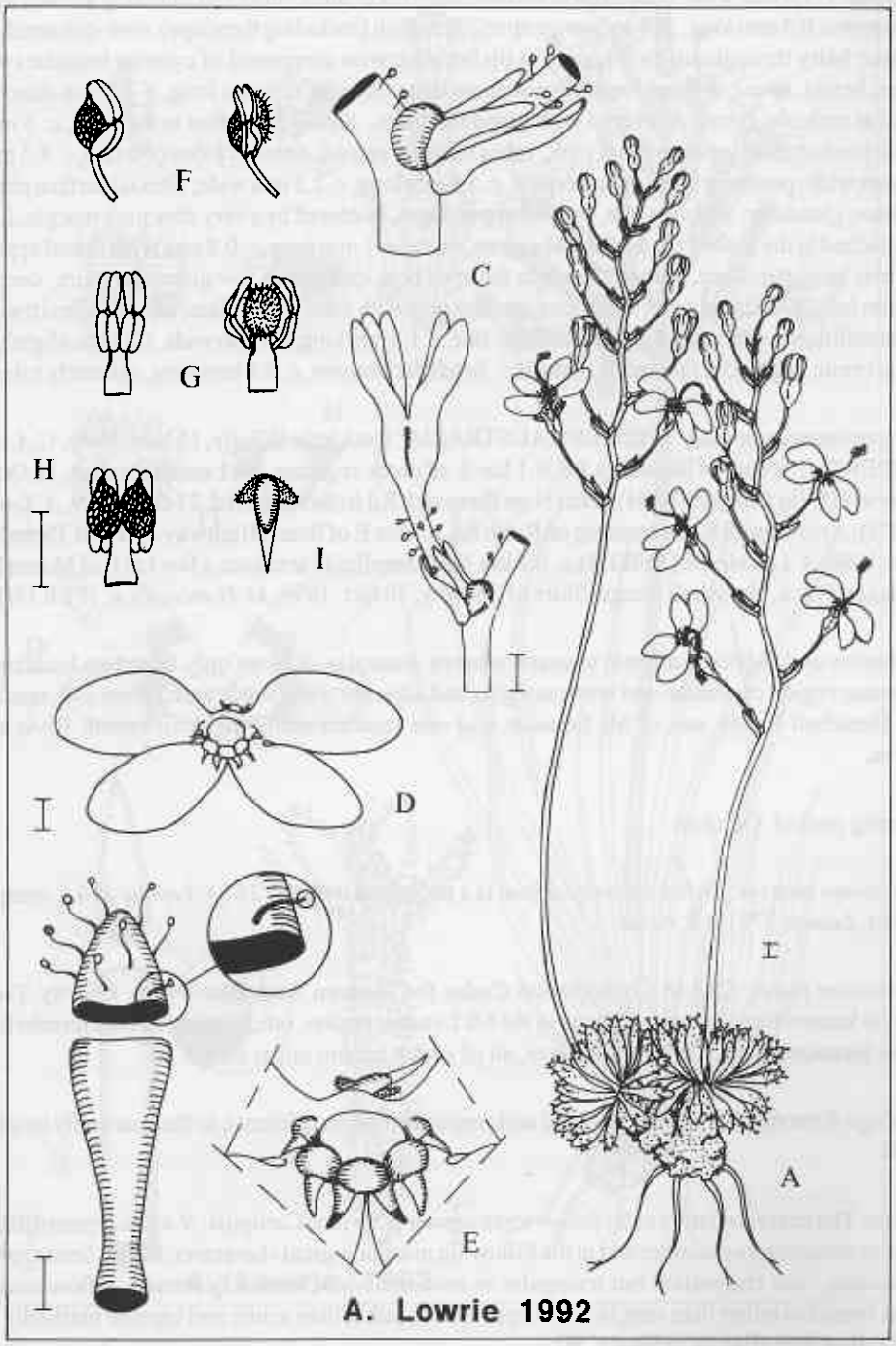

Figure 5. *Stylidium tylosum* A - habit of flowering plant; B - leaf; C - hypanthium, sepals and attachment to the scape, with enlargement (above) of bract, bacteoles and mound-like swelling at the base of the pedicel; D - corolla; E - throat appendages, enlarged; F - lateral view of gynostemium tip (with stigma at right); G - front view of gynostemium tip (with stigma at right); H - back of gynostemium; I - labellum. Scale bar = 1 mm.

Stylidium tylosum Lowrie & Kenneally, *sp. nov.* (Figure 5)

S. cymifero Lowrie & Carlquist affini sed plantis parvis, inflorescentia racemosa florum pedicellatorum alternorum constata, corollae appendicibus faucis 6 tumulis argentiis 6, bracteis et bracteolis una aggregatis supra tumulum ad basim pedicelli positis, appendicibus labelli differt.

Typus: Moodiarrup Rd West, 2.1 km east of Gibbs Road, east of Moodiarrup, Western Australia, 33° 36' S, 116° 47' E, 31 October 1994, *A. Lowrie* 1082 (*holo:* PERTH 04452488; *iso*: MEL).

Perennial herb; stem short, single or branched; leaves basal and rosette. *Leaves* oblanceolate, petiolate, 4.5-8 mm long, 0.8-1.8 mm wide, oblong in section, with a few glandular hairs on the adaxial surface. *Inflorescence* solitary, a raceme of alternate flowers; scape and inflorescence glabrous (except for a few scattered glands on the pedicels); bracts *c.* 1.5 mm long; bracteoles *c.* 1 mm long, grouped together and located on a large mound-like swelling (visible in live specimens only) at the base of the pedicel. *Hypanthium* turbinate, tube shorter than the sepals, 1.5-2 mm long, *c.* 1.1 mm wide, glabrous. *Sepals* 5, all free to the base, 2-3 mm long. *Corolla* yellow, lobes laterally paired; anterior lobes obovate, *c.* 5.5 mm long, *c.* 3 mm wide; posterior lobes obovate-elliptic, *c.* 5 mm long, *c.* 2.5 mm wide; abaxial surface of each lobe yellow with a little purple staining (appearing brown) blotched along the midvein, glabrous. *Throat appendages* 6, the longest *c.* 0.7 mm long, horn-like, dark yellow, the tips often brown, with 3 large silver coloured light -reflecting mounds. *Labellum* boss attached to the base of the corolla tube sinus, yellow, narrowly ovate, *c.* 0.7 mm long, *c.* 0.3 mm wide; basal appendages yellow, *c.* 0.2 mm long, *c.* 0.2 mm wide, apical point *c.* 0.5 mm long; corolla tube shorter than the sepals. *Gynostemium c.* 5.5 mm long, anthers black with yellow pollen; stigma cushion-like. *Capsule* unknown. *Seeds* unknown.

Other specimens examined. WESTERN AUSTRALIA: On private property *c.* 1 km diagonally in from the corner of Knight and Washpool Roads, *c.* 9 km N of the Porongurup Range, 34° 35' S, 117° 51' E, 21 Oct. 1991, *P. Mann s.n.* (PERTH).

Distribution and habitat. Endemic to south-western Australia. Known only from one collection in the Moodiarrup region and another collection *c.* 170 km to the south-east in the Porongurup region. Grows in sandy clay in watershed run-off areas from granite outcrops.

Flowering period. October-November.

Conservation status. CALM Conservation Codes for Western Australian Flora: Priority One. This species is only known from two populations, one in the Moodiarrup region on public land, the other in the Porongurup region on private property. Neither one is currently under threat.

Etymology. From the Greek *tylos* - lump or swelling, in reference to the large mound-like swelling at the base of the pedicel.

Affinities. The nearest relative to *Stylidium tylosum* is *S. cymiferum* Lowrie & Carlquist. *S. tylosum* is distinguished from *S. cymiferum* by its smaller plants; inflorescence a raceme of alternate flowers; corolla throat appendages 6 with 3 silver-coloured mounds; bract and bracteoles grouped together, located on a large mound-like swelling at the base of the pedicel (visible in live specimens only); and labellum having basal appendages.

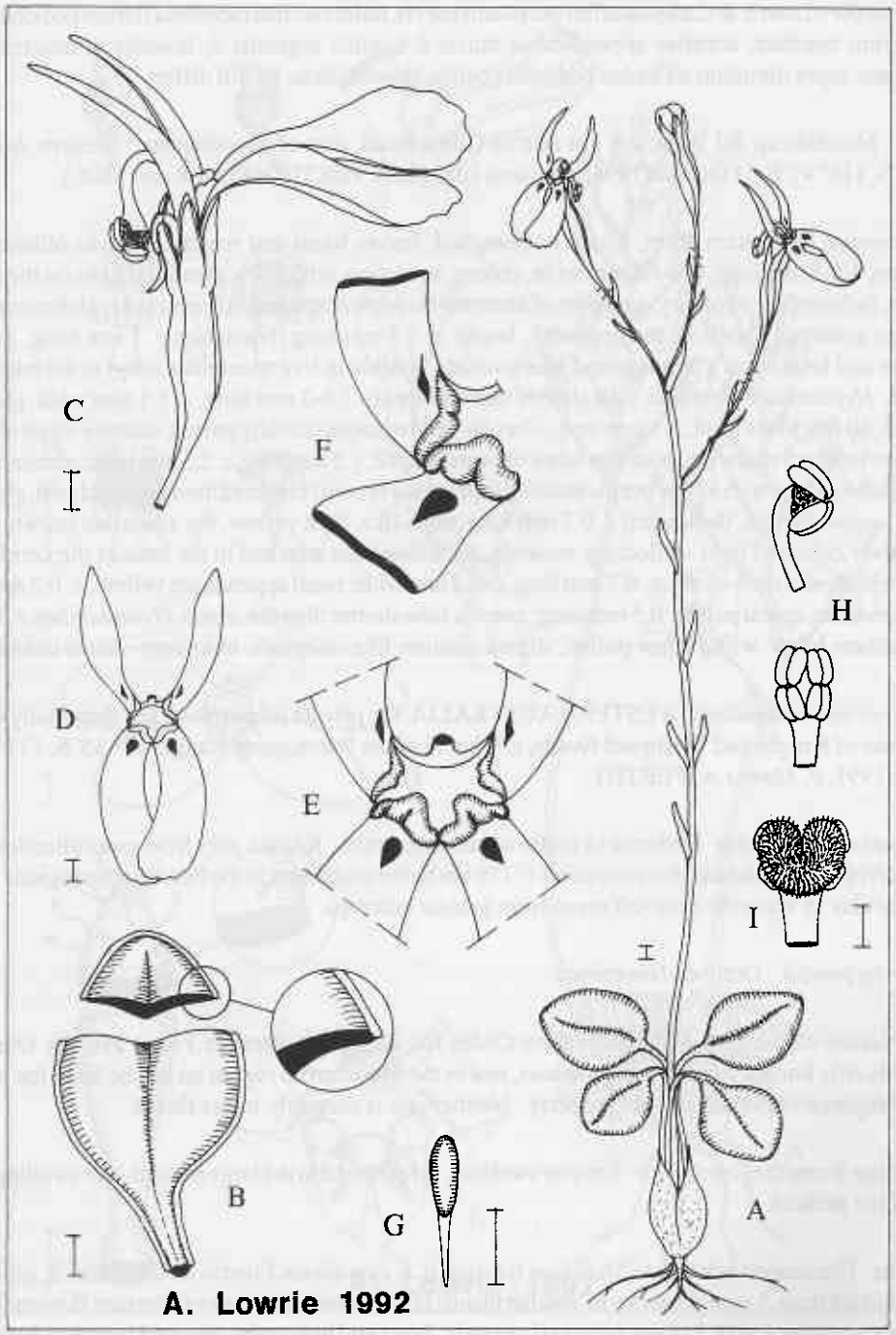

Figure 6. *Stylidium udusicola* A - habit of flowering plant; B - leaf; C - lateral view of flower; D - corolla; E - throat appendages; F - throat appendages, enlarged; G - labellum; H - lateral view above and front view below of gynostemium tip; I - front view of gynostemium tip (with stigma grown out). Scale bar = 1 mm.

Stylidium udusicola Lowrie & Kenneally, *sp. nov.* (Figure 6)

S. petiolari Sond. affini sed scapo infra inflorescentiam bractiis ornato, appendicibus faucis 4, V-shaped, tumuloideis differt.

Typus: On the corner of Richardson Rd and Great Northern Highway, north-east of Miling, Western Australia, 30° 29' S, 116° 26' E, 28 September 1991, *A. Lowrie* 337 (*holo*: PERTH 04452518; *iso*: MEL).

Bulbous *perennial herb* with ephemeral upper parts; bulb covered with brown scale-like papery sheaths; leaf petioles arising from the bulb apex appressed for much of their length to the base of the scape below the soil, leaves on the soil surface basal and rosetted. *Leaves* broadly ovate, fleshy, petiolate; lamina *c.* 6.5 mm long, *c.* 5.5 mm wide, hyaline on margin, *c.* 0.5 mm thick and gull-winged in section. *Inflorescence* solitary, slightly racemose (including scape) up to 12 cm long; scape glabrous, bearing 1-5 (mostly 2-3) bracts *c.* 3 mm long; pedicels glandular; floral bract *c.* 3 mm long; bracteoles *c.* 2 mm long. *Hypanthium* elliptic, *c.* 4 mm long, *c.* 1.5 mm wide, glabrous. *Sepals* 5, all free to the base, subulate, glabrous with a fine marginal translucent-white hyaline, *c.* 2.8 mm long. *Corolla* white blushed pink with small reddish marks near the throat, lobes vertically paired; anterior lobes oblanceolate, slightly falcate but remaining erect (not bent towards or over each other like *S. petiolare* Sond.), *c.* 6.5 mm long, *c.* 1.3 mm wide; posterior lobes oblong-falcate, *c.* 7 mm long, *c.* 2.5 mm wide, often cruciate, abaxial surface of each lobe white, reddish along the midvein. *Throat appendages* 4, yellowish-white, those on the posterior lobes larger, V-shaped-undulate, mound-like, *c.* 0.5 mm high. *Labellum* boss attached to the base of the corolla tube sinus, reddish, narrowly ovate, *c.* 1 mm long, *c.* 0.4 mm wide, without basal appendages; apical point *c.* 1 mm long; corolla tube shorter than the sepals. *Gynostemium c.* 8 mm long, anthers blackish brown, pollen purple, stigma almost double cushion-like. *Capsule* unknown. *Seeds* unknown.

Other specimens examined. WESTERN AUSTRALIA: Dewar's Pool-Bindoon road, 19.5 km E of Great Northern Highway, 31° 16' S, 116° 20' E. 14 Sep. 1991, *A. Lowrie* 306 (PERTH); Banovich Rd, near creek crossing *c.* 2 km N of Jurien road, 30° 12' S, 115° 12' E, 23 Sep. 1990, *A. Lowrie* 276 (PERTH); *c.* 20 km E of Kalbarri, 27° 46' S, 114° 18' E, 4 Sep. 1992, *A. Lowrie* 633 (PERTH).

Distribution and habitat. Known from four areas in south-western Australia: Dewar's Pool, Miling, Mt Lesueur region and east of Kalbarri. A distance of *c.* 560 km separates the southernmost and northernmost populations of this species. Grows in clayey sand in winter-wet depressions; in red loam on creek margins; and on seepage areas on granite outcrop aprons.

Flowering period. September-October.

Conservation status. A common species and not under threat.

Etymology. From the Latin *udus* - wet and *cola* - dweller in reference to this species preferred habitat.

Affinities. The nearest relative to *Stylidium udusicola* is *S. petiolare* Sond. *S. udusicola* is distinguished from *S. petiolare* (in parenthesis) by its scape below the inflorescence bearing bracts (bracts on scape absent); throat appendages 4, V-shaped-undulate, mound-like (throat appendages 8, 6 tooth-like and 2 small bumps); and leaf lamina broadly ovate, (lamina narrowly elliptic).

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