



***Drosera bracteosa*, a new species of *D.* section *Arachnopus* (Droseraceae) from Arnhem Land and the Roper Gulf region, Northern Territory, Australia**

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Introduction

Within the carnivorous plant genus *Drosera* L. (Droseraceae), the primarily northern Australian *D.* sect. *Arachnopus* Planch. (also informally known as the *D. indica* L. complex) is distinguished by its annual, stem-forming growth habit that comprises thread-like, narrowly linear-lanceolate leaves and well-expressed internodes (Lowrie 2014; Krueger *et al.* 2023). Stems, leaves, and inflorescences typically bear a large variety of different glands and trichomes that represent key distinguishing characters among species (Schlauer 2001; Lowrie 2014; Krueger & Fleischmann 2021; Krueger *et al.* 2023). While long considered to only contain a single, morphologically highly variable taxon (*D. indica*; e.g. Marchant *et al.* 1982; Susandarini *et al.* 2002), taxonomic revisions of the section in 2013 and 2014 recognised 11 species that, in addition to indumentum differences, are distinguished by petiole, stamen, and seed morphology (Barrett & Lowrie 2013; Lowrie 2014). More recently, two additional species of *D.* sect. *Arachnopus* were described from the Kimberley region in Western Australia, bringing the number of species in the section to 13 (Krueger & Fleischmann 2021; Krueger *et al.* 2023).

Abstract

Drosera bracteosa T.Krueger & A.Fleischm. is newly described and illustrated from Arnhem Land and the Roper Gulf region (Northern Territory). This annual species of *Drosera* L. sect. *Arachnopus* Planch. is notable for producing among the largest floral bracts known in the genus. Detailed comparisons with three morphologically similar species – *D. barrettiorum* Lowrie, *D. hartmeyerorum* Schlauer, and *D. finlaysonianae* Wall. ex Arn. – are provided, along with a distribution map and preliminary data on the new species' ecology and conservation status. New information regarding indumentum patterns in *D.* sect. *Arachnopus* is provided.

Keywords: carnivorous plants, sundews, Australian flora

During herbarium studies conducted as part of an amended description of *D. finlaysoniana* Wall. ex Arn. (Krueger & Fleischmann 2021), a collection comprising plants with unusually large floral bracts was encountered (C. Dunlop 2184, duplicates at K, NY, DNA, and HO; herbarium acronyms following Thiers 2025+). Krueger & Fleischmann (2021) tentatively treated the specimen C. Dunlop 2184 under *D. finlaysoniana*, but an additional note was provided stating ‘specimens with exceptionally large floral bracts’ (Krueger & Fleischmann 2021, p. 82).

In March 2023, two additional collections featuring unusually large bracts were encountered during studies at the Northern Territory Herbarium (DNA). It was found that these specimens represent a distinctive new species of *D. sect. Arachnopus* that, among several other unique characters distinguishing it from the habitually similar *D. finlaysoniana*, produces clusters of yellow-headed modified tentacles at the bases of its leaves and bracts. Within the section, this character is only paralleled in *D. barrettiorum* Lowrie and *D. hartmeyerorum* Schlauer, while the recently described *D. maanyaa-gooljoo* A.Fleischm. & T.Krueger produces a similar pattern with large trichomes rather than modified tentacles (see Krueger *et al.* 2023 for a detailed discussion on the morphology of these petiole base ‘emergences’). However, indumentum and floral characters clearly differentiate this new species from all known members of *D. sect. Arachnopus*. Following consultation with staff at DNA, the temporary phrase name ‘*D. sp. big bracts* (C.R.Dunlop 2184) T.Krueger’ was chosen for this undescribed taxon, referencing its unusually large bracts.

Fieldwork in East Arnhem Land in May 2024 by the first author (TK) permitted the gathering of photographs and new herbarium material, facilitating the formal description of this new species. Detailed comparisons with the morphologically similar *D. barrettiorum*, *D. hartmeyerorum*, and *D. finlaysoniana* are provided, as well as an illustration, field photographs, and a distribution map.

Methods

Morphological measurements were taken from herbarium specimens at DNA and PERTH, as well as from living plants studied in East Arnhem Land in May 2024. A Northern Land Council Work Permit (#149057) was obtained by TK to facilitate fieldwork in East

Arnhem Land. Fresh herbarium material was collected under a Northern Territory Wildlife Permit (#74433) and deposited at DNA.

For microscopic study of the leaf abaxial indumentum and the modified tentacles, fresh leaves of cultivated specimens of *D. barrettiorum* and *D. hartmeyerorum* (seed obtained from the late Allen Lowrie, Perth) and dried herbarium material of *D. bracteosa* (specimen T. Krueger 63 and Z. Madycki, leaf fragments of which were sent to M for analyses via the Scientific Exchange System) were used.

The distribution map was prepared with DIVA-GIS v.7.5 (Hijmanns *et al.* 2012) using the geospatial data for Australia provided from the program’s website. The resulting image was further labelled and photographically enhanced using Photoshop v.6 (Adobe Com, USA).

Taxonomy

Drosera bracteosa T.Krueger & A.Fleischm., sp. nov.

Drosera sp. big bracts (C.R.Dunlop 2184) T.Krueger [Northern Territory Herbarium 2023, FloraNT – Northern Territory flora online. Department of Land Resource Management. Accessed 27 May 2025].

Type: AUSTRALIA. Northern Territory, Dalywoi [Daliwuy] Bay, c 10km. SSE of Yirrkala, 21.v.1996, I. Cowie 6961 (holo: DNA D0127235!; iso: MEL0295393A photo!).

Differential diagnosis: *Drosera bracteosa* is distinguished from the morphologically similar *D. hartmeyerorum* Schlauer (contrasting characters in parentheses) by its petiolate leaves with petiole 2–5 mm long (leaves sessile or rarely shortly petiolate with petiole up to 3 mm long), yellow-headed modified tentacles in clusters of 1–4 at lamina base, with smaller modified tentacles present throughout lamina (yellow-headed modified tentacles only found at lamina base in clusters of 4–15), broadly ovate, deeply cupped bracts 2.0–4.0 mm long and 1.5–3.2 mm wide (bracts ovate, shallowly cupped, 1.2–2.0 mm long, 0.5–1.2 mm wide), and green to light orange stems with green leaves (leaves and stems usually reddish).

Annual herb, 9–24 cm tall including inflorescence. *Stem* upright or ascending, self-supporting, unbranched, terete, up to 13 cm tall, 0.7–1.8 mm in diameter, yellowish green, turning light orange with

age; internodes 1–5 mm long; stem and scape covered with stalked, secretory capitate trichomes 0.1–0.4 mm long, each comprising a uni- or biseriate translucent white or red stalk and flattened gland head secreting a translucent mucilage droplet c. 0.1 mm in diameter. *Leaves* filiform, 4–11 active (mucilage-producing) leaves present during anthesis, 3–7 cm long in flowering-size specimens, yellowish green, vernation circinate; *petiole* (i.e. the almost tentacle-free basal part of the leaf) linear, (1–)2–5 mm long, adaxial surface glabrous except for 1–2 carnivorous tentacles on each margin near the base, abaxial surface covered with minute, translucent, sessile, hemispherical trichomes c. 0.05 mm in diameter; *lamina* narrowly linear-lanceolate with acuminate tip, c. 3–7 cm long, 1.2–1.8 mm wide at its greatest width near petiole, adaxial surface covered with stalked, carnivorous, secretory capitate glands (tentacles) bearing translucent white or reddish-pink stalks and radially symmetric, red-tipped gland heads; tentacles mostly 0.6–1.5 mm long, but exceedingly long-stalked towards lamina apex (longest tentacles up to 5 mm); adaxial lamina base (near petiole) bearing a cluster of 1–4 modified tentacles with reddish multicellular stalks 0.5–0.8 mm long and yellow, broadly ellipsoid, moriform heads 0.3–0.4 mm long and 0.2–0.3 mm wide; smaller modified tentacles of the same type (stalks 0.2–0.3 mm long, heads 0.1–0.3 mm long and c. 0.1–0.2 mm wide) also sparsely present along whole adaxial lamina surface amongst the carnivorous tentacles; abaxial lamina surface margins covered with long-stalked, biseriate, secretory capitate trichomes up to 0.8 mm long; abaxial lamina surface additionally covered with minute, translucent, sessile, hemispherical trichomes c. 0.05 mm in diameter. *Inflorescences* 1–5, each forming a 5–14-flowered, bracteate scorpioid cyme (rarely branched); peduncle, rachis and pedicel indumentum identical to stem indumentum; *scape* 8–19 cm tall including peduncle when fully developed (fruiting), yellowish green; *peduncle* terete, ascending vertically ($\pm$ parallel to stem axis even in old inflorescences), 3–8 cm long, 0.6–1.0 mm in diameter; fruiting pedicels spaced by 2–17(–22) mm; *pedicels* terete, often concaulescent respective to their supporting bract, straight at anthesis, becoming more or less arcuate or reflexed in fruit (arcuated horizontally/slightly downwards from rachis, then sharply curving upright near seed capsule; pedicels of unfertilised flowers pendulous), 5–18 mm long at

anthesis and in fruit, 0.2–0.5 mm in diameter. *Bracts* broadly ovate, strongly cupped (adaxially concave), longitudinally curved, sessile or on stalk up to 1.5 mm long, margins entire or irregularly crenulate, apex obtuse or acute, (1.5–)2.0–4.0 mm long, (1.1–)1.5–3.2 mm wide, yellowish green with reddish base or dark reddish throughout, adaxial surface basally with 4–5 modified tentacles with yellow, moriform heads (corresponding to those found at lamina base), abaxial surface sparsely covered with translucent white, short-stalked capitate glands; bracts conspicuous and persistent in fruit. *Flowers* 8–13 mm in diameter. *Sepals* 5, lanceolate to elliptic, persistent, basally adnate, margins entire, with acute (rarely obtuse or acuminate) apex, 1.9–3.5(–4.0) mm long, 1.0–1.5(–1.8) mm wide, abaxial surface and margins covered with translucent white, short-stalked capitate glands. *Petals* 5, narrowly obovate, apical margin entire to slightly irregularly crenulate, 4.0–6.5 mm long, (2.0–)2.4–3.1 mm wide, pale pink. *Stamens* 5, alternipetalous, narrowly deltoid, slightly S-shaped, 1.8–2.7 mm long, 0.5–0.7 mm wide; filaments very narrowly deltoid, 1.6–2.0 mm long, 0.2–0.3 mm wide, white; anthers bithecate; connective slightly dilated with rounded, swollen white apex protruding above the thecae, 0.5–0.9 mm long, 0.3–0.5 mm wide, white; pollen yellow. *Ovary* with 3 fused carpels, subglobose, shallowly 3-lobed in outline, 0.9–1.2 mm in diameter, yellowish green, glabrous. *Styles* 3, each basally divided into 2 entire style-arms; style-arms flagelliform, terete, arcuately curved upwards with stigmas curled inwards, 2.2–3.0 mm long (including stigmatic portion), c. 0.1 mm in diameter, translucent white, glabrous; *stigmas* 1.0–1.6 mm long, 0.1–0.2 mm in diameter, translucent white, papillate. *Seeds* numerous, broadly ellipsoidal, 310–380 μ m long, 200–250 μ m wide, black, testa surface isodiametrically reticulate. Figures 1–3; 4a, e, i.

Additional specimens examined: NORTHERN TERRITORY.

Groote Eylandt, east side of swamp, circa 49km SE of Angurugu, 17.vi.2021, I.D. Cowie 14851 and D.L. Lewis (BRI [n.v.], DNA D0286839!, MEL2543718 photo!, MO photo!); Little Ck. [Creek] Crossing, 162m [miles] E. [of] Stuart Hwy on Borrooloola Rd., 4.vi.1971, C. Dunlop 2184 (DNA A0030987!, HO photo!, K!, NY photo!); [the label of the DNA specimen mentions another duplicate distributed to L, however the specimen could not be traced back at L!]; Binydjarrja (Daliwuy Bay), 22.5 km SE of Nhulunbuy, 6.v.2024, T. Krueger 63 and Z. Madycki (DNA D0292246!, PERTH!).

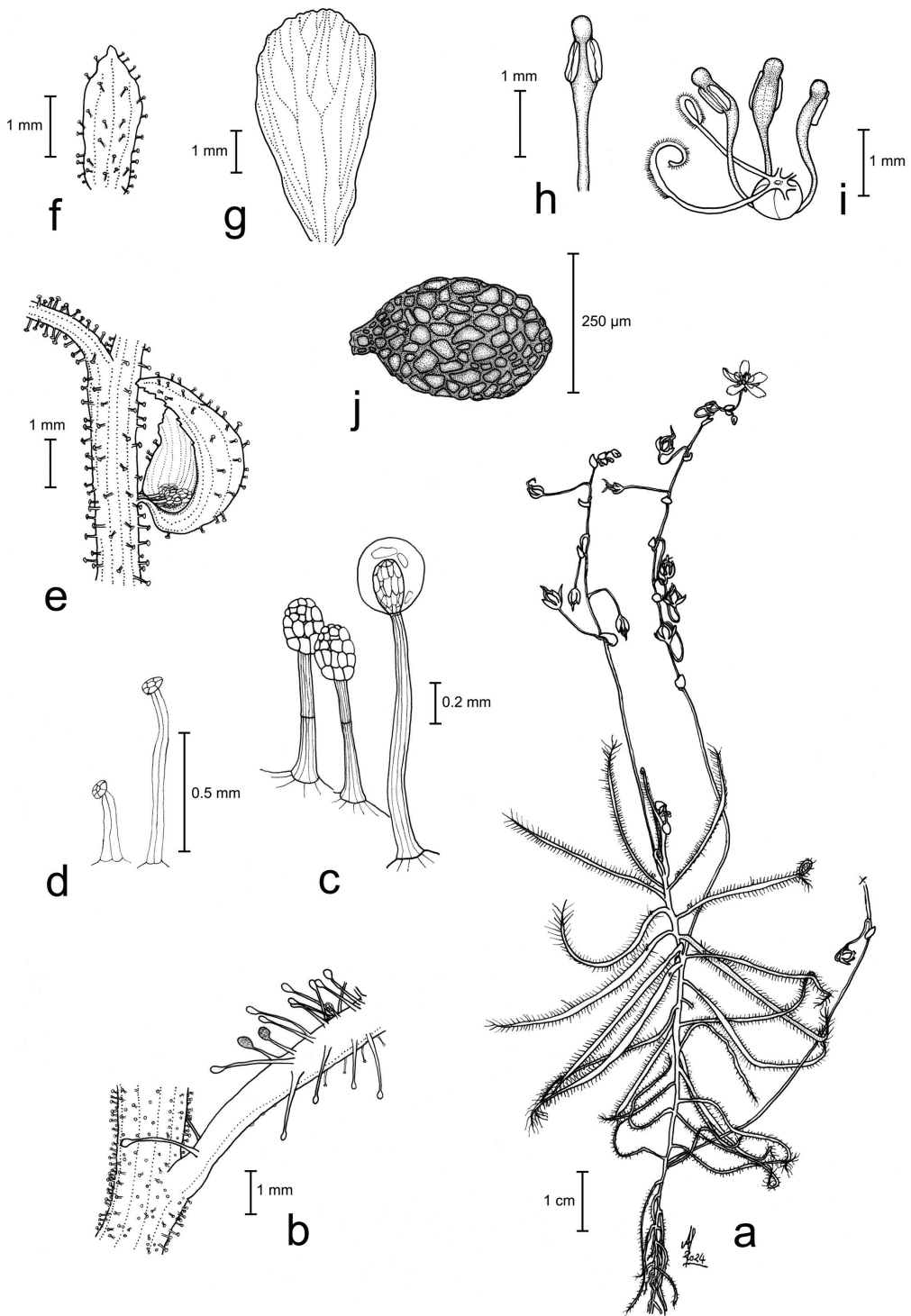


Figure 1. *Drosera bracteosa*. **a:** habit; **b:** petiole, lamina base, and stem indument; **c:** two modified tentacles from the lamina base (left) and an adjacent tentacle (right); **d:** biseriate stalked capitate trichomes from leaf abaxial surface (from dried specimen, hence without mucilage droplet); **e:** bract, partial peduncle, and partial pedicel; **f:** sepal; **g:** petal; **h:** stamen, antrorse view; **i:** gynoecium with two of the six style arms shown, and three of the five stamens; **j:** seed. **a, j** from the holotype *l. Cowie* 6961, DNA D0127235; **d** from *T. Krueger* 63 and *Z. Madycki*, DNA D0292246; rest from *in situ* macro photographs by T. Krueger. Drawing by A. Fleischmann.

Distribution and ecology: Known from only three widely separated locations in the Northern Territory, Australia (Figure 5). In addition to the type location at Binydjarrna (Daliwuy Bay) near Nhulunbuy, *D. bracteosa* is also known from the island of Groote Eylandt in the Gulf of Carpentaria and from McArthur (near Borroloola) in the Roper Gulf region. The distances between each of these three sites are notable: c. 210 km between the type location and Groote Eylandt location and c. 300 km between the Groote Eylandt and McArthur locations (Figure 5). It is therefore likely that this species is more widespread than currently known as much of East Arnhem Land remains poorly explored botanically and is not well-represented in herbarium collections. The significant geographic distance between the three known locations furthermore suggests that the species' distribution may extend into the Gulf Country region of Queensland.

Drosera bracteosa grows in a variety of seasonally wet habitats. At its type location, it grows in damp sand on a shallow coastal dune system between a mangrove swamp and the seashore (this location is only c. 55 metres from the seashore). At Groote Eylandt, it was collected from the drying margin of a large freshwater swamp, again growing in sand. The southernmost and by far the most inland collection from McArthur reports it as growing in 'heavy clay soil, damp area near river', suggesting a very different habitat type. Recorded associated vegetation includes *Melaleuca* sp., *Excoecaria* sp., *Fimbristylis* sp., and *Calandrinia gracilis* at the type location; and *Melaleuca cajuputi*, *Dapsilanthus* sp., and *Eriocaulon* sp. at Groote Eylandt. No associated vegetation was recorded at the McArthur site.

Phenology: Flowering was recorded during May and June but may extend into July based on the young developing inflorescences present on the specimen *I.D. Cowie 14851* and *D.L. Lewis*, which was collected in mid-June. During a visit to the type location on 6 May 2024, most plants had not yet started producing inflorescences and only four individuals were found flowering. This indicates that *D. bracteosa* likely germinates during February to April, i.e. during the height of the wet season.

Conservation status: Data Deficient (DD) following IUCN guidelines (IUCN Standards and Petitions Committee 2024) as data are inadequate to determine

a threat category. No total population size or decline data is available for *D. bracteosa* (precluding usage of criteria A, C, and D1), while a lack of targeted surveys precludes assessment under criteria B and D2 (IUCN Standards and Petitions Committee 2024). Furthermore, no quantitative analysis is possible with the available data, and criterion E is thus also not applicable.

While only known from three locations, *D. bracteosa* is likely to be more widespread given the lack of botanical exploration in coastal areas of East Arnhem Land. The type location is part of the Dhimurru Indigenous Protected Area (IPA) which is recognised as part of the National Reserve System of Australia and is managed by Indigenous rangers according to IUCN guidelines for protected areas (Dhimurru Aboriginal Corporation 2015). During a survey of this population on 6 May 2024, c. 100 plants were recorded growing in a small area of c. 200 m² adjacent to a campground. Despite surveying similar coastal habitats within one kilometre north and south of this site, no additional subpopulations were found. The area where the plants occur has been fenced off, preventing vehicle access to the fragile dune habitat.

The second known location on Groote Eylandt, all of which is included within the Anindilyakwa IPA, is located in a remote part of the island that is not affected by mining or recreational activities (Anindilyakwa Land Council 2016). No information regarding the size or extent of this population is available from the specimen label.

The third known location near McArthur has not been confirmed since the original collection in 1971. A survey of this site in April 2023 failed to locate any plants and the habitat has become very weed-infested (K. Brennan, pers. comm. 2023). The area is farmed for cattle and thus eutrophication and soil compaction likely represent additional threats to this population. Furthermore, the site is located within petroleum tenement EP187 that may be subject to hydraulic fracturing in the future (Imperial Oil & Gas 2019).

Etymology: The specific epithet *bracteosa* refers to the exceptionally large floral bracts of this species that are among the largest observed in the genus.

Taxonomic notes: A putatively close relationship between *D. bracteosa* and *D. hartmeyerorum* is indicated by similarities in seed shape, stamen shape (with the connective exceeding the thecae and forming



Figure 2. *Drosera bracteosa*. **a:** habit; **b:** flower, pedicel, and bract; **c:** flower; **d:** seeds; **e:** stem and petioles, note the absence of tentacles on the petioles (except for two solitary ones on the petiole margins); **f:** lamina base, showing three yellow-headed modified tentacles; **g:** side view of lamina, small yellow-headed modified tentacles are highlighted with black arrows. Scale bars are 1 cm (a), 1 mm (b, c, e, f, g), and 100 µm (d). All photos taken by T. Krueger on 6 May 2024 at the type location (the shown specimens were turned into voucher *T. Krueger 63* and *Z. Madycki*; DNA D0292246, PERTH).

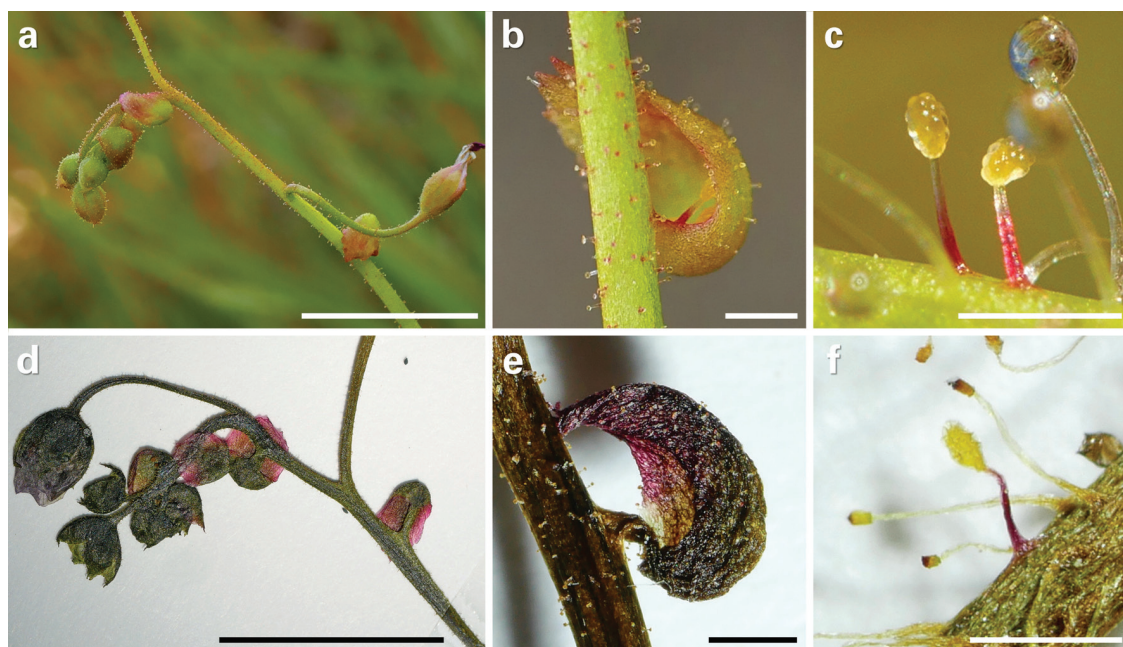


Figure 3. *Drosera bracteosa*, comparison of living plants (a–c) and herbarium material (d–f). **a, d:** tip of inflorescence, showing the exceptionally large bracts of this species. The lower bracts are the largest and typically exceed the sepals in size. Also note the reddish colouration of the the upper parts of the bracts in both the living and herbarium materials; **b, e:** bracts, some bracts bear a short stalk; **c, f:** yellow-headed modified tentacles. Note that the stalks are usually reddish while the carnivorous tentacles have translucent-white or pink stalks. Scale bars are 1 cm (a, d) and 1 mm (b, c, e, f). **a–c** taken by T. Krueger on 6 May 2024 at the type location; **d–f** taken by T. Krueger from *I.D. Cowie 14851* and *D.L. Lewis* (DNA D0286839) and provided with permission from the Northern Territory Herbarium (DNA).

a protruding rounded white tip), and the presence of modified, yellow-headed, moriform tentacles at the bases of lamina and bracts. This relationship has been corroborated by DNA sequence data indicating a sister relationship between these two species (A. Fleischmann, unpublished data). However, *D. bracteosa* is easily distinguished from *D. hartmeyerorum* and all other known members of *D.* sect. *Arachnopus* by its exceptionally large, cup-shaped floral bracts, which (at up to 4 mm long and up to 3.2 mm wide) are the largest in the section and the second-largest in the genus (Table 1; Figures 3–4). Only those of the exceptionally large South African species *D. regia* Stephens of the phylogenetically early branching, monospecific lineage *D.* subg. *Regiae* Seine & Barthlott are longer. The largest of its narrowly lanceolate bracts can reach up to 10 mm in length (Stephens 1926).

Additional differences to *D. hartmeyerorum* arise from the morphology of leaves and modified tentacles. While the leaves of *D. bracteosa* comprise a distinct, almost

tentacle-free petiole c. 2–5 mm in length, the leaves of *D. hartmeyerorum* are either sessile (i.e. the dense cover of tentacles reaches all the way to the stem) or, especially in unusually small or juvenile plants, shortly petiolate with petioles up to 3 mm long (pers. obs.; Schlauer 2001). The distinctive yellow-headed modified tentacles of *D. bracteosa* are slightly smaller, more ellipsoid, and occur in sparse clusters of 1–4 at the lamina base compared to *D. hartmeyerorum*, whose modified tentacles typically occur in dense clusters of 4–15 at the lamina base and have globular heads (Table 1; Figure 4). In contrast to *D. hartmeyerorum*, where the modified tentacles are confined to the bases of lamina and bracts, the modified tentacles of *D. bracteosa* are additionally sparsely present across the whole lamina surface, albeit there in smaller size (Figure 1g), a character that is only paralleled in *D. barrettiorum*. It is curious to note that these modified tentacles are rather inconspicuous in *D. bracteosa* as they are only apparent upon careful microscopic examination of plants in the field or herbarium material.

In contrast, the modified tentacles of *D. barrettiorum* and *D. hartmeyerorum* are quite obvious and less likely to be overlooked (compare Figures 4a, b, c). Notably, in *D. bracteosa*, the modified tentacles at its bract bases are often almost completely hidden inside the deeply cup-shaped organs (Figure 3b).

A further unique character distinguishing *D. bracteosa* from all related taxa is indumentum micro-morphology: double-tipped trichomes (so-called type 5 glands *sensu* Langer *et al.* 1995, see Krueger & Fleischmann 2021 for gland terminology and illustrations) represent a synapomorphy of *D. sect. Arachnopus* (Krueger *et al.* 2023), yet they are apparently always absent in *D. bracteosa*. However, some forms of *D. hartmeyerorum* also produce very few, if any, of these trichomes.

Apart from *D. hartmeyerorum* and *D. bracteosa*, *D. barrettiorum* is the only other known species featuring conspicuous clusters of yellow-headed modified tentacles at the lamina and bract bases. *Drosera barrettiorum* is furthermore notable for producing relatively large bracts which can be up to 2.9 mm long but are much narrower (not exceeding 1.5 mm) and are only shallowly cupped (Figure 4). However, *D. barrettiorum* is an overall much larger species, producing inflorescences 15–60 cm tall, and its yellow-headed modified tentacles have a very different shape (flattened elliptic hyperbolic-paraboloid or ‘potato crisp-shaped’; Table 1; Figure 4). In addition, *D. barrettiorum* usually has sessile leaves and it produces much larger flowers with a very different anther shape (Figure 4);

Table 1. Differential characters of *D. bracteosa* and morphologically similar taxa. Data from herbarium measurements, field observations, Schlauer (2001), Lowrie (2014), Krueger and Fleischmann (2021), and Krueger *et al.* (2023).

	<i>Drosera bracteosa</i>	<i>D. hartmeyerorum</i>	<i>D. barrettiorum</i>	<i>D. finlaysoniana</i>
Presence/absence of yellow-headed modified tentacles at lamina base	Present	Present	Present	Absent
Number of yellow-headed modified tentacles at lamina base	1–4	(1–)4–15	4–45	N/A
Shape of yellow-headed modified tentacles at lamina base	Subglobose (longer than wide), moriform (‘mulberry shaped’)	Globose (as long as wide), moriform (‘mulberry-shaped’)	Flat elliptic hyperbolic-paraboloid (‘potato-crisp-shaped’)	N/A
Size of yellow-headed modified tentacles at lamina base, including stalk	0.8–1.2 mm long, 0.2–0.3 mm wide	0.5–1.0 mm long, 0.3–0.4 mm wide	0.5–0.7 mm long, 0.3–0.5 mm wide	N/A
Petiole length	(1–)2–5 mm	Absent <1 mm, (rarely with short petiole ≤3 mm)	Absent <1 mm, (rarely with short petiole ≤2 mm)	Absent <1 mm
Peduncle exsertion	ascending vertically (± parallel to the stem)	ascending vertically (± parallel to the stem)	ascending vertically (± parallel to the stem)	ascending ± horizontally (held at >45° from the stem)
Inflorescence length	8–19 cm	5–18 cm	15–60 cm	(3–)6–18(–26) cm
Bract shape	Broadly ovate, deeply cupped	Ovate, slightly cupped	Ovate, slightly cupped	Subulate
Bract size	(1.5–)2.0–4.0 mm long, (1.1–)1.5–3.2 mm wide	1.2–2.0 mm long, 0.5–1.2 mm wide	1.5–2.9 mm long, 0.7–1.5 mm wide	1.5–4.0(–4.5) mm long, 0.2–0.8 mm wide
Number of yellow-headed modified tentacles at bract base	4–5	1–2(–4)	2–5	N/A
Leaf colour	Green	Usually reddish, green in juvenile plants or in plants growing in shade	red, rarely green	Yellowish green
Anther shape	Shorter than filament, connective slightly dilated with rounded, swollen white apex protruding above the thecae	Shorter than filament, connective slightly dilated with rounded, swollen white apex protruding above the thecae	As long as or longer than filament connective dilated with rounded, swollen yellow apex protruding above the thecae	Shorter than filament, connective not dilated and not protruding above the thecae

flowers of *D. barrettiorum* are self-incompatible, while *D. bracteosa* is self-compatible, like *D. hartmeyerorum* (see Krueger *et al.* 2023 for discussion on breeding modes in *D.* sect. *Arachnopus*).

While *D. bracteosa* is geographically disjunct from *D. barrettiorum* (which only occurs in the northern Kimberley bioregion of Western Australia), the widespread *D. hartmeyerorum* (records from WA, NT, QLD) is also known from a single collection from Limmen National Park (D.J. Dixon and D.L. Lewis 1854; DNA D0193530!), which is likely within the distribution range of *D. bracteosa*.

A photo of the *D. bracteosa* collection C. Dunlop 2184 was previously confused by the authors of the present work with *D. finlaysoniana* (Krueger & Fleischmann 2021) based on its superficially similar growth habit, stem and leaf colour, and an apparent lack of petioles (which were not noticed at the time). Furthermore, the collection I.D. Cowie 14851 and D.L. Lewis was also first identified as *D. finlaysoniana* by the collectors. Despite these superficial similarities (and its similar habitat preferences), *D. bracteosa* is morphologically very distinct from *D. finlaysoniana*. *Drosera finlaysoniana*

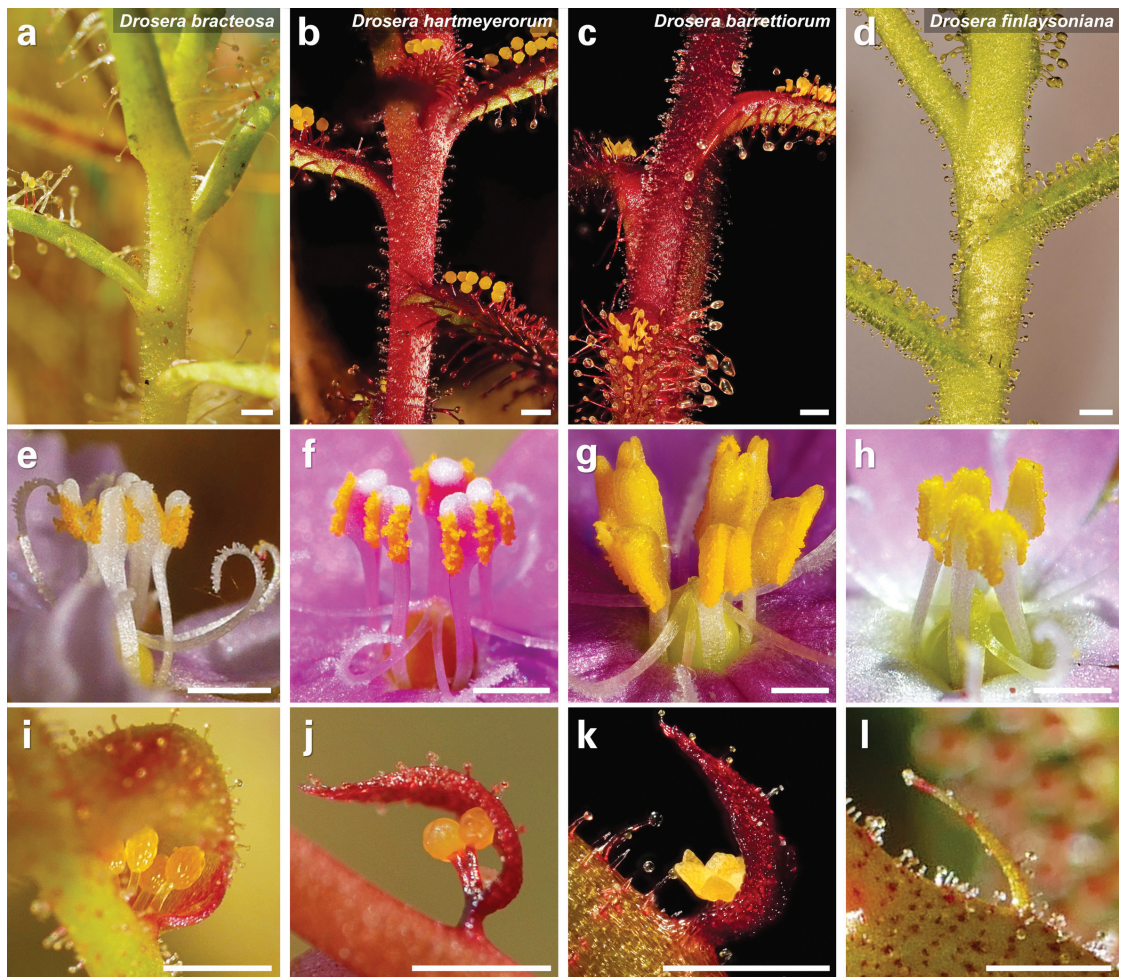


Figure 4. Comparison of key morphological distinguishing features of *D. bracteosa* (left column), *D. hartmeyerorum* (centre-left column), *D. barrettiorum* (centre-right column), and *D. finlaysoniana* (right column). **a–d**: stem and petioles. Note the longer petioles of *D. bracteosa* and the absence of yellow-headed modified tentacles in *D. finlaysoniana*; **e–h**: stamens. Note that the anther connectives of *D. bracteosa* and *D. hartmeyerorum* have a rounded, swollen white apex protruding above the thecae; **i–l**: bracts. All scale bars are 1 mm. **a, e, i** taken on 6 May 2024 at the *D. bracteosa* type location; **b, c, d, g, k** from cultivated plants originating from Western Australia; **f** taken on 19 July 2020 near Taylors Lagoon, WA; **j** taken on 9 April 2017 near Kununurra, WA; **h** taken on 30 July 2014 near Ellenbrae, WA; **l** taken on 4 August 2019 near Cue, WA. **a, e, f, h, i, j, l** by T. Krueger; **b, c, d, g, k** by A. Fleischmann.

has a $\pm$ horizontally ascending peduncle (i.e. peduncle diverging at $>45^\circ$ from the stem) that is usually shorter than the leaves. Furthermore, it has sessile leaves, anther connectives that do not exceed the thecae, and it lacks any modified tentacles on leaves and bracts. By contrast, *D. bracteosa* has a vertically ascending peduncle (i.e. peduncle held $\pm$ parallel to the stem), anther connectives that protrude above the thecae with a swollen white tip, and shortly petiolate leaves that feature yellow-headed modified tentacles (the latter are evident in herbarium material upon microscopic examination; Figure 3f; Table 1). In addition, distinctly smaller, double-tipped trichomes are abundant on most surfaces of *D. finlaysoniana*. The foveolate seed ornamentation of *D. finlaysoniana* is likewise distinctive and differs from the reticulate testa surface of *D. bracteosa*, *D. barrettiorum*, and *D. hartmeyerorum*.

The specimen *I. Cowie 6961* at DNA had previously been identified as *D. nana* Lowrie in 2021 by the collector, with the specimen bearing the annotation ‘no simple hairs on inflorescence – *D. affn* [sic!] *nana*’. While small individuals of *D. bracteosa* may resemble exceptionally large individuals of *D. nana* in overall habit, the latter species can be easily distinguished by its indumentum consisting of hispid eglandular hairs covering stem and inflorescence, lack of modified tentacles, and very small subulate bracts.

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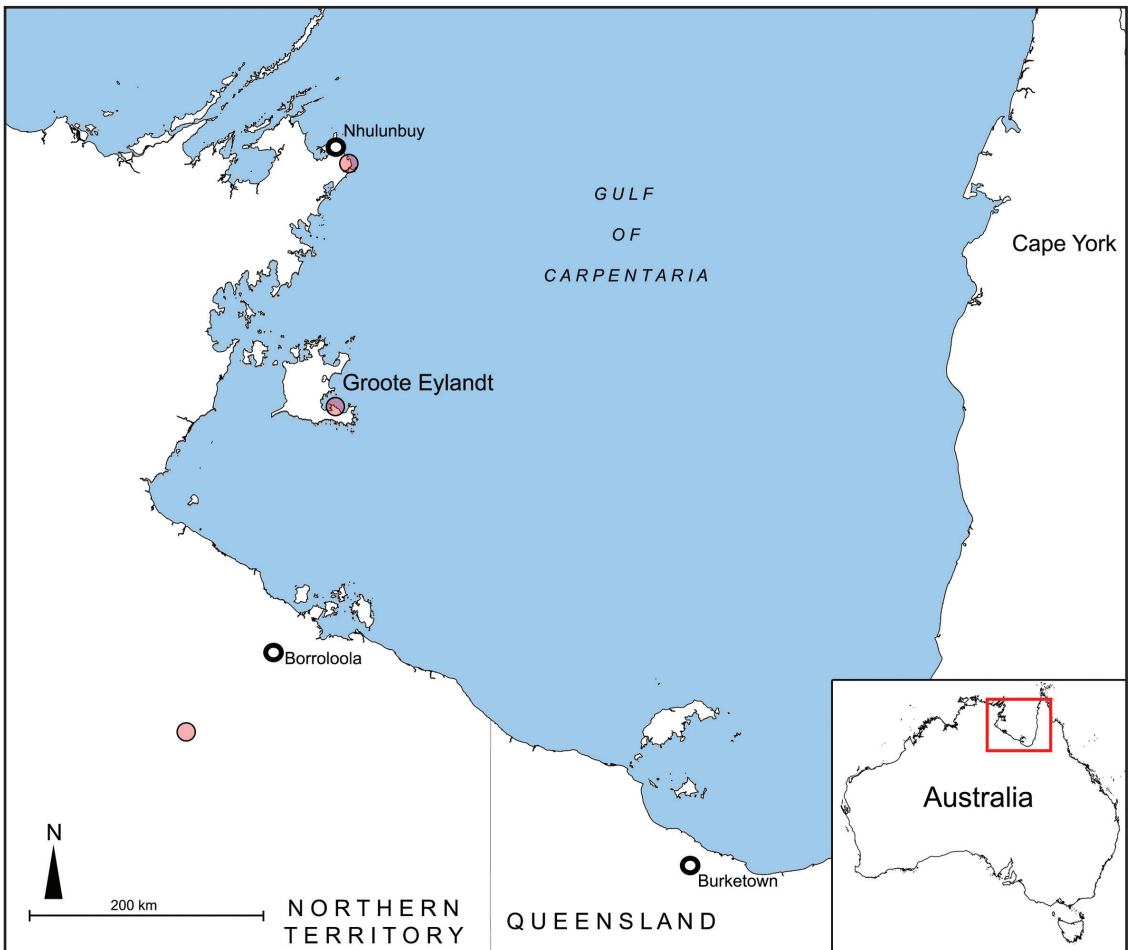


Figure 5. Map of the three known localities of *Drosera bracteosa*. Map prepared by A. Fleischmann.

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