

1. *Grevillea raybrownii* P. Olde & N. Marriott, sp. nov.

A *Grevillea triternata* R. Br., conflorescentiis densioribus ovoideisque, indumento brunneo, gemmis conspicuis, densis, oblongo-ovoideis, nectario inconspicuo, pedicellis (3.5–4.2 mm longis) pistillisque (6–7 mm longis) longioribus, trichomatibus rubiginosis in ovarii indumento post anthesim crescentibus distinguitur.

HOLOTYPE: NEW SOUTH WALES: Central Tablelands: Waterboard Reserve near carpark, Welby, P. Olde 93/52 & M. Olde, 26 Sep 1993 (NSW). Isotype: CANB, MEL, K, US.

A bushy shrub c. 1.5 m high; branchlets slightly angular with occasional ridges decurrent from the leaf bases, rusty-silky when very young. Leaves 2.5–5 cm long, ascending but the rachis sometimes recurved, subsessile but appearing petiolate, secund, bipinnatisect with the secondary lobes often divaricate; primary leaf lobes 3–5, narrow-linear to subulate, with secondary bi- to five-sect division, the highest orders of division on the more basal lobes; ultimate lobes 0.5–2.4 cm long, 0.6–1.2 mm wide, linear-subulate, pungent; upper surface glabrous with midvein and edge-veins evident; margin sharply and angularly refracted along the edge-vein; lower surface bisulcate, silky in the grooves, the midvein prominent. Conflorescences 1.5–1.7 cm long, 1.5 cm wide at the base, terminal or axillary, shortly pedunculate, ovoid, dense, c. 40-flowered, simple; buds oblong-ovoid, initiating and partially developed several months before proceeding to anthesis; peduncles c. 1 mm long and, with the floral rachises, sericeous; floral bracts 1.5 mm long, 2.2 mm wide, obovate to fan-shaped, brown-sericeous outside, persistent at anthesis. Flowers acroscopic but irregularly orientated; pedicels 3.5–4.2 mm long, silky; torus 0.5 mm across, oblique; nectary semi-annular, inconspicuous; perianth 2.5 mm long, 0.8 mm wide, cylindrical to slightly sigmoid, sericeous outside with white hairs, glabrous within; tepals coherent except along the dorsal suture split by exertion of the style, separating and free to the base at anthesis, rolled back and soon detaching after; limb revolute, ferruginous, globose, completely enclosing the style-end before anthesis; pistil 6–7 mm long; stipe 0.1 mm long, silky; ovary subsessile, silky developing reddish hairs well after anthesis; style glabrous, geniculate c. half-way along, terminated by a suddenly expanded style-end; pollen-presenter 1 mm long, 0.8 mm wide, erect, conical, rising c. 0.5 mm above the oblique basal flange. Fruits 12 mm long, 5 mm wide, persistent, erect on incurved stipes, oblong-ellipsoidal with recurved apiculum, sericeous, the indumentum conspicuously red-striped and blotched on the dorsal side; style persistent; pericarp 0.3–0.5 mm thick. Seeds 9 mm long, 3.5 mm wide, obovoid-ellipsoidal; outer face wrinkled, convex, crimped submarginally with a broad, ridge-like margin; inner face with a central linear-elliptic area surrounded by a raised ridge; margin revolute with a waxy-papery wing all round drawn into an oblique, excurrent elaiosome at the apex. Figure 1.

ETYMOLOGY: The specific epithet honours Mr Raymond Brown (1947–), nurseryman of Bulli, New South Wales, for his contribution to the horticulture of *Grevillea*; he also first directed our attention to this species.

FLOWER COLOUR: Perianth white with hairs on the limb ferruginous; style white in the lower half, lilac in the upper half.

FLOWERING PERIOD: Spring.

DISTRIBUTION: New South Wales, where restricted to an area bounded by Dapto, Robertson and Berrima.

CONSERVATION STATUS: 2KC suggested. This species has been collected in several localities but requires survey. It is known from at least one reserve.

HABITAT & ECOLOGY: Grows in dry sclerophyll forest in sandy, gravelly loam derived from sandstone. Pollinator unknown. Regeneration is from seed.

DISCUSSION: *Grevillea raybrownii* has dense, ovoid confluences with a conspicuous brown indumentum, dense, early-formed, oblong-ovoid floral buds, inconspicuous nectary, pedicels 3.5–4.2 mm long, pistils 6–7 mm long, red hairs not forming in the ovary indumentum until after anthesis. By contrast, *G. triternata* has relatively loose, shortly cylindrical confluences with a white indumentum, loose, late-formed, cylindrical floral buds, a relatively conspicuous nectary, pedicels 0.8–1.8 mm long, pistils 3.8–5 mm long. Red hairs are visible in the ovary indumentum of *G. triternata* well before anthesis. Most herbarium specimens of *G. raybrownii* collected in April–May have strongly developed floral buds. In fact, floral buds are more or less continuously present on mature shrubs.

In addition to these differences from *G. triternata*, *G. raybrownii* has leaves with consistently narrower, shorter (mostly 1–1.5 cm long) and less noticeably divaricate lobes, irregularly orientated flowers, a perianth limb that is strongly revolute before anthesis, the tepal-limbs much larger, a subsessile ovary with slower ovary enlargement after anthesis, its pollen-presenter broader at the base and rising in height about the same or less than its width. *G. triternata*, on the other hand, has markedly divaricate leaf lobes that are usually somewhat broader and longer (up to 3.5 cm long), its flowers adaxial and parallel both to themselves and to the rachis, a nodding perianth limb, its ovary usually clearly stipitate and enlarging well before anthesis, its pollen presenter clearly longer than the width of its base. Although McGillivray (McGillivray 1993: 65–66) made some observations about morphology and distribution of populations referable to our *G. raybrownii*, he considered them to be part of *G. triternata*. However, given the number, kind and consistency of morphological differences between the two taxa, recognition of *G. raybrownii* at specific rank is clearly warranted.

NOTE ON MORPHOLOGY: The reddish colouration of hairs in the ovary indumentum appears to result from a chemical change in the hair-cell contents, possibly coinciding

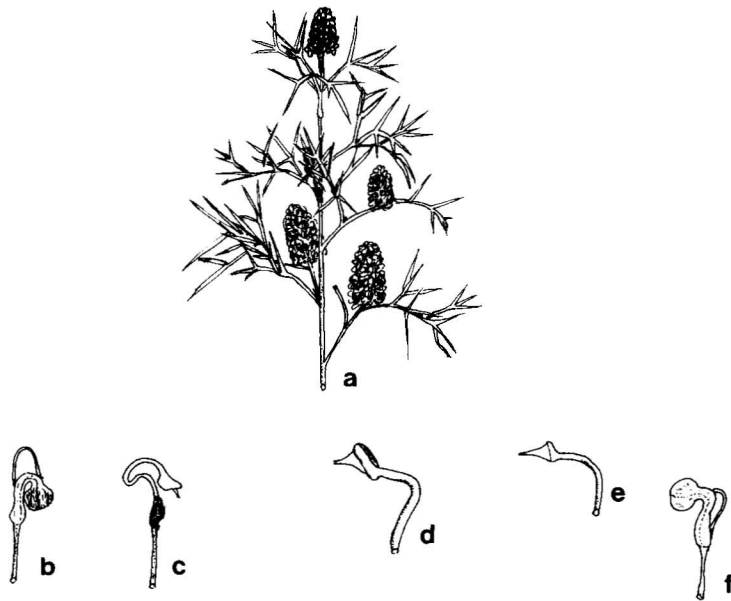


Figure 1. *G. raybrownii*: a. General habit (x0.5); b. perianth in late bud (x2.5); c. pistil (x2.5); d. style-end (x5). *G. triternata*: e. style-end (x5); f. perianth in late bud (x2.5).

with fertilisation of the ovary. If the latter part of this observation is correct, then widespread autogamy is probable in *G. triternata*.

SELECTED SPECIMENS (from 18 examined): NEW SOUTH WALES: Central Coast: Divide between the Nattai River and Allum River, *Olsen 2183*, 25 Jun 1974 (NSW); West Dapto, *Cambage*, May 1904 (NSW). Central Tablelands: Berrima, *Maiden*, Sep 1901 (NSW, MEL 595889); Mundamar Creek track, old road through to Joadja, *Stead*, 5 Apr 1975 (NSW 136247); Vic. Bullio tunnel, Mittagong–Wombeyan Caves Rd, *Taylor 366*, *Goodwin*, *Bishop & Gunnell*, 10 Dec 1984, (NSW, B, CBG, K, PERTH, RSA); 19.2 km NE of Robertson on No. 1 fire trail in the catchment area of the Avon Dam, *Coveny 848*, 24 Feb 1969 (NSW).

2. *Grevillea triternata* R. Br.

Brown (1830: 21).

LECTOTYPE (McGillivray 1993: 445–446): NEW SOUTH WALES: Oxleys 2^d Expedition n. 43 Fraser 43 (BM – two specimens at the base of the sheet; n.v.).

Anadenia triternata A. Cunn. ex G. Heynhold (1846) nomen inval.

A dense, compact shrub 0.2–1 m high; branchlets angular, sometimes ridged, silky. Leaves 3–8 cm long, ascending, shortly petiolate, the rachis refracted at the nodes, divaricately bipinnatisect to triternate, sometimes bipinnatifid; primary leaf lobes 3–5, oblong to narrowly oblong, usually with secondary or tertiary division; ultimate lobes 0.7–3.5 cm long, 1–4 mm wide, linear or linear-subulate, triangular to elliptic, pungent; margin angularly refracted to smoothly revolute; upper surface flat to longitudinally slightly v-shaped, glabrous or with scattered trichomes, the midvein evident within a shallow groove; lower surface bisulcate or the lamina either exposed beside the midvein or in some specimens mostly enclosed but exposed at the sinuses of some leaves, silky in the grooves or on the exposed parts, midvein prominent. Conflorescence terminal or axillary in the upper leaf axils, enclosed well within the foliage, unbranched or sometimes 1-branched at the base; unit conflorescence 1–2.8 cm long, 0.5–0.8 cm wide, shortly cylindrical, moderately dense, c. 20-flowered, proceeding quickly to development after bud initiation; peduncles and floral rachises white-sericeous; floral bracts 0.8–2.3 mm long, spreading to patent, ovate, white-sericeous outside, persistent at anthesis or deciduating just before. Flowers adaxially orientated and parallel to the rachis; pedicels 0.8–1.8 mm long, sericeous; torus \pm 0.5 mm across, oblique; nectary linguiform; perianth 2–3 mm long, 0.8 mm wide, cylindrical to sigmoid, white-sericeous outside, glabrous inside; tepals coherent before anthesis except along the dorsal suture where separate to the base through exertion of the style, all separating and free to the base at anthesis, rolling back and away after; limb nodding, globular, white-sericeous, the style-end completely enclosed before anthesis; pistil 3.8–5 mm long; stipe 0.1–0.5 mm long, sericeous; ovary oblique to the stipe, sericeous with a reddish, dorsal stripe, ovoid with dorsal concavity, enlarging before anthesis; style glabrous except a few basal hairs sometimes up to 1.5 mm above ovary, retrorse in the lower half but conspicuously inflected c. the middle, terminated by a broadly expanded style-end; pollen presenter 0.6 mm long 0.6 mm wide, conical, rising 0.8 mm above its straight to slightly oblique base. Fruits one-seeded, anteriorly oblique on stipes sharply inflexed through c. 60°–90°, obliquely ellipsoid to slightly ovoid, 6.5–8.5(–9.5) mm long, (4.5–)5–7 mm wide, 4–5.5 mm thick; styles persistent; indumentum subsericeous, usually with red-brown stripes or blotches predominantly in the dorso-lateral region, the markings composed of hairs with dark contents; surface beneath the indumentum rugulose and sometimes also granulose, slightly ridged about the dorsal side, especially towards the base and apex; pericarp (0.3–)0.4 mm across at the suture, c.0.4–0.6 mm thick at centre face and at the dorsal side; texture crustaceous; fruits opening widely after dehiscence. Seeds elliptical, 6–7 mm long, 3.5–4 mm wide, c. 2.5 mm thick, outer face strongly convex and with a