

***Calytrix insperata* (Myrtaceae: Chamelaucieae), a new Western Australian species opportunistically discovered on vacation**

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**SHORT COMMUNICATION**

*Calytrix* Labill. is the most widespread genus of Myrtaceae tribe Chamelaucieae DC. in Australia, occupying diverse habitats from the tropical north through the arid zone to temperate areas of the southern mainland and Tasmania. Currently about 90 species are recognised, including the new species described below, which was discovered and photographed by Adrienne Markey and Steve Dillon when they visited Kennedy Range National Park while on holiday in 2009. Their distinctive collection resulted in a phrase name being allocated, but extra material was considered necessary for the taxon to be described adequately (Rye 2013). This obstacle was overcome in 2015 when additional material and photographs were obtained by Kevin Thiele, similarly while on vacation.

***Calytrix insperata* Rye, *sp. nov.***

*Type:* Kennedy Range, Western Australia [precise locality withheld for conservation reasons], 20 July 2015, K.R. Thiele 5235 (*holo:* PERTH 08828075; *iso:* CANB, K, MEL).

*Calytrix* sp. Kennedy Range (A. Markey & S. Dillon 6301), Western Australian Herbarium, in *FloraBase*, <https://florabase.dpaw.wa.gov.au/> [accessed 23 January 2018].

*Illustration.* B.L. Rye, *Nuytsia* 23: 500, Figure 4 (2013).

*Shrub* 0.7–1.3 m high, single-stemmed at base. *Young stems* moderately densely hairy, with patent or somewhat retrorse hairs 0.2–0.25 mm long. *Leaves* alternate. *Petioles* well-defined, 0.6–0.8 mm long. *Leaf blades* more or less concolorous, elliptic or oblong-elliptic in outline, 5–7 mm long, 0.7–1 mm wide, 0.7–1 mm thick, with a moderately dense indumentum and numerous oil glands, lacking an apical point; longest hairs 0.1–0.2 mm long. *Peduncles* well-defined, 1–1.5 mm long at maturity, hairy. *Bracteoles* persistent, connate at base for *c.* 1 mm, 4.5–5.5 mm long; apical point  $\pm$  absent. *Flowers* 5-merous, 11–16 mm diam., the sepal awns not or scarcely protruding beyond the petals. *Hypanthium* 6–8.5 mm long, hairy; ovarian part terete, 3.5–5.5 mm long; styler part free from style,  $\pm$  cylindrical, 2–3 mm long, 5-ribbed. *Sepals* spreading, 6–7.5 mm long, brownish with yellow margins outside; outer surface of lamina densely covered by fine hairs mostly 0.5–0.75 mm long, with shorter hairs on margins towards the base; inner surface of lamina glabrous or with scattered antrorse hairs

distally; awn poorly defined as it merges into lamina, 3–5 mm long, with fine, spreading hairs up to 1.5 mm long. *Petals* 6–7.5 mm long, white or pale yellow inside; outer surface varying from having just a narrow pink stripe down centre to being largely pink but with white or cream margins, hairy especially towards apex. *Staminodes* few or absent. *Stamens* in 2 or 3 close series, 65–90. *Filaments* yellow, the largest ones 4–6 mm long. *Anthers* narrowly dorsifixed, 0.35–0.5 mm long, white to pale yellow. *Ovules* 2. *Style* 7–11 mm long; base enclosed in a cavity above the ovary in a collar formed by the staminal disc. *Mature fruits* unknown. (Figure 1)

*Diagnostic features.* Distinguished from other members of the genus by the following combination of characters: leaves 5–7 mm long, hairy throughout; bracteoles connate at base; flowers hairy outside on hypanthium and sepals; hypanthium free from style, 5-ribbed; sepals with an awn 3–5 mm long; petals white or pale yellow inside; stamens 65–90.



Figure 1. Flowering branchlet of *Calytrix insperata*, showing a variety of colours on the sepals, outer and inner surfaces of the petals, and stamens. Image taken by Keven Thiele; voucher K.R. Thiele 5235.

*Other specimen examined.* WESTERN AUSTRALIA: [locality withheld for conservation reasons] 24 Sep. 2009, A. Markey & S. Dillon 6301 (PERTH).

*Distribution and habitat.* Apparently restricted to Kennedy Range National Park (see Rye 2013: Figure 3). Recorded from upland sandstone gullies at the top of the range, often in rock crevices.

*Phenology.* Flowers and young fruits recorded from July to September.

*Conservation status.* Listed by Smith and Jones (2018) as Priority Two under Conservation Codes for Western Australian Flora, under the name *C. sp. Kennedy Range* (A. Markey & S. Dillon 6301). *Calytrix insperata* occurs in a large national park and is locally common.

*Etymology.* From the Latin *insperatus* (by chance, unexpected), referring to the discovery of the species by botanists who were on holiday rather than on a field trip.

*Vernacular name.* Mundatharrda *Calytrix*. Mundatharrda is the indigenous name for the Kennedy Range in the local Inggarda Aboriginal language.

*Affinities.* *Calytrix insperata* belongs to the *C. strigosa* A.Cunn. species alliance (see key to the whole group below). It has more numerous stamens than in previously discovered members of the alliance (65–90 *cf.* 25–70) and the most northern distribution (see Rye 2013: Figure 3). It is similar in flower colour to *C. watsonii* (F.Muell. & Tate) C.A.Gardner but differs in having leaves about as thick as wide (*cf.* wider than thick), with a moderately dense indumentum of minute hairs throughout and rather crowded oil glands (*cf.* leaves almost glabrous except for marginal cilia 0.15–0.3 mm long and with scattered oil glands), and in the styler part of its hypanthium being longer (2–3 mm long *cf.* 1–1.5 mm) and more cylindrical. *Calytrix watsonii* also differs in occurring mainly in yellow to red sand on dunes or sandplains.

1. Petals white or yellow. Stamens 45–90
  2. Leaf blades 2–3 mm long, ciliate along margins and often on midvein but glabrous elsewhere, with scattered oil glands. Stamens 45–70. Occurs on red sand dunes or in orange to yellow sand, rarely over banded ironstone (Wiluna–Lake Goongarrie)..... **C. watsonii**
  - 2: Leaf blades 5–7 mm long, moderately densely hairy throughout, with crowded oil glands. Stamens 65–90. Occurs in sandy rock crevices in sandstone (Kennedy Range NP)..... **C. insperata**
- 1: Petals medium to deep pink or purple. Stamens 25–55
  3. Leaf blades 1.5–3.5 mm long, with numerous hairs 0.05–0.3 mm long. Hypanthium 4.5–6 mm long. Petals 6–9 mm long (New Forest Station–Whitewells Station)..... **C. sp. Paynes Find**
  - 3: Leaf blades 2–8.5 mm long, glabrous or with few to numerous hairs 0.1–0.5 mm long. Hypanthium (6–)7–14 mm long. Petals (6–)8–12 mm long (Dirk Hartog Island–near Perth–Merredin) ..... **C. strigosa**

*Notes.* Kennedy Range is in a region where there are few *Calytrix* species and *C. insperata* does not co-occur with any others, although *C. truncatifolia* Craven is found in sandy habitats in the surrounding area and *C. desolata* S.Moore occurs in varied habitats in the general area.

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### References

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