

47. **DUTHIEA** Hackel, Verh. K.K. Zool.-Bot. Ges. Wien 45: 200. 1895 [“1896”].

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Thrixgyne Keng; *Triavenopsis* Candargy.

Perennials, tussocky. Leaf blades usually rolled. Inflorescence a simple panicle, compact or elongate, 1-sided, spikelets few. Spikelets with 1–3 florets, laterally compressed or cylindrical, disarticulating above glumes and between florets; rachilla extension present; glumes subequal, equaling or a little shorter than spikelet, herbaceous with hyaline margins, rounded on back, 5–9-veined, often with transverse veinlets; callus hairy; lemmas lanceolate to narrowly ovate, membranous or leathery, hispid or villous, apex 2-toothed to deeply 2-cleft, awned from between lobes; awn geniculate, column twisted; palea keeled, keels usually extended into sharp mucros. Lodicules absent (rarely 2, oblanceolate). Stamens 3, anthers glabrous or shortly hairy at apex. Ovary strigose, stigmas 2 or 3, borne on a long pubescent style. Caryopsis tipped by a subulate beak formed from persistent style.

Three species: Himalayas, from Afghanistan to W China; one species in China.

This genus is often placed in *Aveneae* on account of the several-flowered spikelets of some species; the keeled palea is also atypical in *Stipeae*. It belongs to a small group of genera, including *Pseudodanthonia*, *Sinochasea*, *Stephanachne*, and probably *Trikeriaia*, which occupy an intermediate and basal position between the two tribes. Multiveined glumes, 3 lodicules, and a linear hilum are all Stipoid characteristics. Three stigmas may also occur in this group. Molecular evidence is scanty but indicates Stipoid affinities.

1. *Duthiea brachypodium* (P. Candargy) Keng & P. C. Keng, Acta Phytotax. Sin. 10(2): 182. 1965.

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Triavenopsis brachypodium P. Candargy, Arch. Biol. Veg. Pure Appl. 1: 65. 1901; *Duthiea dura* (Keng) Keng & P. C. Keng; *D. nepalensis* Bor; *Thrixgyne dura* Keng.

Perennial forming small dense tussocks, with or without long rhizomes; basal sheaths persistent, brown, papery. Culms stiffly erect, 25–100 cm tall, 1–3-noded. Leaf blades 2.5–13(–35) cm, 2–3.5 mm wide, glabrous, apex acute; ligule 2–3 mm, up to 8 mm on culm leaves. Raceme 7–10 × 0.5–0.7 cm; spikelets 8–18, overlapping. Spikelets narrowly cylindrical, 1.4–2.1 cm, floret 1, gray-green; rachilla extension ca. 2 mm, sometimes tipped with reduced floret; glumes oblong-lanceolate, 1.3–2.1 cm, subacute; callus densely pubescent; lemma

equal to spikelet, leathery, 10–11-veined, body hispid, especially around awn insertion, apex deeply 2-cleft, lobes 7–10 mm, scabrid, acuminate; awn densely scabrid-pubescent, column 0.8–1 cm, bristle 1–1.6 cm; palea keels thick, prominent. Lodicules absent or 2, oblanceolate. Anthers 1.4–1.6 mm, glabrous or with a few short hairs at apex. Style 6–7 mm; stigmas 2 or 3, 7–9 mm. Fl. and fr. Jun–Oct.

Open woodland, between bushes, sunny grassy slopes in high mountains; 3000–5300 m. Qinghai, Sichuan, Xizang, Yunnan [Bhutan, Nepal].

The specific epithet “*brachypodium*” is here a noun in apposition and should not be altered to “*brachypodia*.”

The other two species in the genus, *Duthiea bromoides* Hackel and *D. oligostachya* (Munro) Stapf from the W Himalayas, both have spikelets with more than one fertile floret and a branching inflorescence. A slender rachilla extension is often present in *D. brachypodium*.

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