

196. **APOCOPIS** Nees, Proc. Linn. Soc. London 1: 93. 1841.

楔颖草属 xie ying cao shu

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*Amblyachyrum* Hochstetter ex Steudel.

Annual or perennial. Culms slender. Leaf blades linear; ligule short, membranous. Inflorescence terminal, composed of (1 or)2(–4) erect, closely appressed racemes; racemes fragile, spikelets imbricate, usually single, sessile spikelets present, pedicelled spikelets normally suppressed, sometimes a few basal spikelets enlarged, barren, awnless; rachis internodes shorter than spikelets, linear, ciliate; pedicels slender, partly adnate to margin of lower glume, occasionally bearing a rudimentary spikelet (developed in *A. intermedius*). Sessile spikelet dorsally compressed, florets 2; callus obtuse; lower glume papery to leathery, broad, flattened, 7(–9)-veined, apex broadly truncate or emarginate; upper glume narrowly lanceolate, 3-veined, 2-keeled, margins inflexed; lower floret staminate, lower lemma and palea similar, hyaline; upper floret variable, female, bisexual, male or barren, upper lemma linear-lanceolate, entire or 2-toothed, with geniculate puberulous awn, infrequently awnless, palea shorter and broader. Lodicules absent. Stamens 2.

Fifteen species: tropical Asia; four species (one endemic) in China.

- 1a. Lower glume dark brown with pale yellowish transverse apical band; awn usually absent ..... 1. *A. paleaceus*  
1b. Lower glume pale greenish yellow with dark red transverse apical band; awn present.  
2a. Sessile spikelet 6–9 mm, upper floret male or barren; pedicelled spikelet present, female, awned ..... 4. *A. intermedius*  
2b. Sessile spikelet 3.5–6 mm, upper floret bisexual; pedicelled spikelet absent.  
3a. Sessile spikelet 3.5–4 mm; lower glume papery, obovate-cuneate ..... 2. *A. breviglumis*  
3b. Sessile spikelet 4.5–6 mm; lower glume herbaceous, obovate ..... 3. *A. wrightii*

1. **Apocopis paleaceus** (Trinius) Hochreutiner, Bull. New York Bot. Gard. 6: 262. 1910.

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*Ischaemum paleaceum* Trinius, Mém. Acad. Imp. Sci. St.-Petersbourg, Sér. 6, Sci. Math. 2: 293. 1833; *Andropogon himalayensis* Steudel; *A. paleaceus* (Trinius) Steudel; *Apocopis himalayensis* (Steudel) W. Watson; *A. royleanus* Nees.

Perennial with spreading rhizomes. Culms tufted, up to 60 cm tall, 3–7-noded. Leaf sheaths glabrous below middle, tuberculate-hispid toward blade; leaf blades linear-lanceolate, 2.5–7 × 0.2–0.6 cm, tuberculate-hispid, rarely glabrous, margins thickened, sometimes pectinate-hispid, apex acute; ligule 0.5–1 mm. Racemes 2–4, 2–4 cm; rachis internodes 2–2.5 mm, golden ciliate; pedicel golden bearded. Sessile spikelet 3.8–5 mm; callus golden bearded; lower glume broadly oblong, leathery, dark brown with a pale yellowish scarious band around apex and upper margins, glabrous, 2 outermost veins on each side connected below apex, connected vein minutely exserted, apex truncate, erose-denticulate, ciliolate; florets subequaling glumes; lower lemma lanceolate, apex obtuse to truncate; upper lemma apex truncate, awnless, or 2-denticulate, mucronate to shortly awned. Anthers 2.5–3 mm. Pedicelled spikelet absent. Fl. and fr. Apr–Aug.

Open hillsides. Guangdong, Guangxi, Hainan, Yunnan [Bhutan, N India, Laos, Malaysia, Myanmar, Nepal, Vietnam].

Some specimens from NE India have exserted, geniculate awns to 7 mm long.

2. **Apocopis breviglumis** Keng & S. L. Chen, Acta Phytotax. Sin. 13(1): 59. 1975.

短颖楔颖草 duan ying xie ying cao

Perennial. Culms loosely tufted, glabrous, ca. 50 cm tall, 7–9-noded. Leaf sheaths pilose, hairs denser toward ligule; leaf blades linear or linear-lanceolate, 3–13 × 0.25–0.6 cm, uppermost very reduced, tuberculate-pilose, apex acuminate; ligule ca. 1 mm. Racemes 2, 2.5–4.5 cm, lowermost spikelets barren, awnless; rachis internodes ca. 2 mm, yellowish brown ciliate. Sessile spikelet 3.5–4 mm; callus yellowish brown bearded; lower glume obovate-cuneate, firmly herbaceous, glabrous, greenish yellow with a scarious red-brown band across apex, veins straight, terminating below apex, connected there by transverse veinlets, apex truncate, erose, ciliate; florets longer than upper glume, exserted apices red; lower lemma oblong, truncate-denticulate, ciliate; upper lemma apex subentire, awned; awn 2.2–2.8 cm. Pedicelled spikelet absent. Fl. and fr. summer–autumn.

- Grassy mountain slopes. S Sichuan, N Yunnan.

This species is similar to *Apocopis wrightii*, but with smaller, broader spikelets.

3. **Apocopis wrightii** Munro, Proc. Amer. Acad. Arts 4: 363. 1860.

瑞氏楔颖草 rui shi xie ying cao

Perennial. Culms tufted, wiry at base, 30–60 cm tall, branching above base, 6–7-noded. Leaf sheaths glabrous or pilose; leaf blades linear, 8–12 × (0.2–)0.3–0.6 cm, uppermost very reduced, tuberculate-pilose, rarely glabrous, apex acuminate; ligule ca. 1 mm. Racemes 2, 3–5 cm, lowermost spikelets barren, awnless; rachis internodes 1.5–2 mm, yellowish brown ciliate; pedicel yellowish brown bearded. Sessile spikelet 4.5–6 mm; callus yellowish brown bearded; lower glume obovate-oblong, firmly herbaceous, glabrous or thinly hispid, greenish

yellow with a scarious red-brown band across apex, veins green, straight, terminating below apex, connected there by transverse veinlets, apex truncate, erose, ciliate; florets longer than lower glume, exserted apices red; lower lemma oblong-lanceolate; upper lemma apex 2-denticulate or subentire, awned; awn geniculate, 2–3 cm. Anthers ca. 2.5 mm. Pedicelled spikelet absent or rudimentary. Fl. and fr. Aug–Oct.

Dry grassy hillsides. Anhui, Fujian, Guangdong, Guangxi, Jiangxi, Yunnan, Zhejiang [Thailand].

**4. *Apocopsis intermedius*** (A. Camus) Chai-Anan, Thai Forest Bull., Bot. 6: 46. 1972.

异穗楔颖草 yi sui xie ying cao

*Lophopogon intermedium* A. Camus, Bull. Mus. Natl. Hist. Nat. 25: 285. 1919; *Apocopsis heterogamus* Keng & S. L. Chen; *A. tridentatus* Benth var. *intermedius* (A. Camus) Robery; *A. wrightii* Munro var. *macranthus* S. L. Chen; *Sclerandrium intermedium* (A. Camus) C. E. Hubbard.

Perennial, shortly rhizomatous. Culms erect, ca. 50 cm tall, 7–9-noded. Leaf sheaths glabrous to hirsute; leaf blades linear-lanceolate, 6–15 × 0.3–0.5 cm, uppermost very reduced, tuberculate-pilose when young, or sometimes densely hispid; ligule ca. 1.5 mm. Racemes 2, 2–4 cm, lowermost spikelets barren, awnless; rachis internodes 2.5–3 mm, loosely ciliate with yellowish brown soft hairs. Sessile spikelet 6–9 mm; callus hairs yellowish brown; lower glume oblong, firmly herbaceous, glabrous or hispid, greenish yellow with a scarious brown or red band across apex, veins green, straight, terminating below apex, with transverse veinlets, apex truncate, ciliate; florets longer than lower glume, exserted apices red; lower lemma oblong-lanceolate; upper floret usually barren, lemma linear-lanceolate, apex entire or 2-toothed, awned; awn geniculate, 2–3 cm. Anthers 4–5 mm. Pedicelled spikelet developed, ca. 5 mm; glumes pilose, lower glume narrowly oblong-lanceolate, apex obtuse, upper floret female, lemma awned; awn 2–3 cm. Fl. and fr. autumn.

Streams, valleys, roadsides. Guangdong, S Yunnan, Zhejiang [Thailand, N Vietnam].

This species is anomalous in *Apocopsis* in possessing a developed pedicelled spikelet, which is female with the stigmas often exserted and visible. This is typical of the related genus *Germainia*, but that has a tough rachis with the fertile pedicelled spikelets falling from the raceme. In *A. intermedius* the base of the pedicel is fused to the margin of the lower glume of the sessile spikelet, as is usual in *Apocopsis*, and it appears to be very close to *A. wrightii*.

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