

**4. CATHAYA** Chun & Kuang, Acta Bot. Sin. 10(3): 245. 1962.

银杉属 yin shan shu

Trees evergreen; trunk monopodial, columnar, straight; branchlets apparently dimorphic: long branchlets with alternate rapid and slow growths that result in sets of leaves alternating with denser tufts; false short (lateral) branchlets bearing solitary leaves so densely as to appear clustered. Leaves spirally arranged, radially spreading, linear-oblongate, slightly curved or straight, flattened, longitudinally grooved adaxially, stomatal bands 2, abaxial, white, separated by an elevated midvein, vascular bundle 1, resin canals 2, marginal, margin entire, apex rounded. Pollen cones 1–3 from axillary buds on branchlets. Pollen 2-saccate, with visible cap on pole. Seed cones axillary, sessile, initially erect, finally pendulous, ovoid, maturing in 1st year, often persistent for many years. Seed scales suborbicular, woody, stiff, dehiscent at maturity, persistent. Bracts spatulate, apex tapering. Seeds obliquely ovoid; wing membranous. Cotyledons 3 or 4. Germination epigeal.  $2n = 24^*$ .

• One species: China.

The original description was by Chun & Kuang, Bot. Zhurn. (Moscow & Leningrad) 43: 464. 1958. However, the name was not validly published there because two species were described simultaneously and the type species was not indicated.

**1. Cathaya argyrophylla** Chun & Kuang, Acta Bot. Sin. 10(3): 246. 1962.

银杉 yin shan

*Cathaya nanchuanensis* Chun & Kuang; *Pseudotsuga argyrophylla* (Chun & Kuang) Greguss; *Tsuga argyrophylla* (Chun & Kuang) de Laubenfels & Silba.

Trees to 20 m tall; trunk to 40 cm d.b.h.; bark dark gray, irregularly flaking; branchlets yellow-brown, initially densely gray-yellow pubescent, aging dark yellow and glabrous; winter buds light yellow-brown, ovoid or ovoid-conical. Leaf cushions topped with pale, orbicular or subsquare leaf scars. Leaves dark green adaxially, 4–6 cm × 2.5–3 mm on long branchlets, nearly clustered into a whorl on short branchlets where usually not longer than 3 cm, puberulent, densely pubescent along grooves, margin slightly revolute. Seed cones green, dark brown when mature, ovoid or ellipsoid, 3–5 × 1.5–3 cm. Seed scales 13–16, suborbicular or compressed orbicular-ovate, 1.5–2.5 × 1–2.5 cm, densely pubescent on exposed part. Bracts 1/4–1/3 as long as seed scales. Seeds dark green mottled with light green, slightly appressed, obliquely ovoid, 5–6 × 3–4 mm; wing yellow-brown, obliquely ovate or elliptic-ovate, 1–1.5 cm × 4–6 mm.

• Mountains, usually on open slopes and ridges; 900–1900 m. NE Guangxi (Jinxu Yaozu Zizhixian, Longsheng Gezu Zizhixian), N Guizhou (Daozhen Xian, Tongzi), S Hunan, SE Sichuan (Nanchuan Xian, Wulong Xian).

