

10. CEDRUS Trew, Cedr. Lib. Hist. 1: 6. 1757, nom. cons.

雪松属 xue song shu

Trees evergreen, monoecious; branchlets strongly dimorphic: long branchlets growing several cm each year and bearing very slow-growing, lateral short branchlets; winter buds small, scales persistent. Leaves spirally arranged and radially spreading on long branchlets, shorter and very densely clustered on short branchlets, needlelike, triangular or ± quadrangular in cross section, stiff, stomatal lines present both adaxially and abaxially, most numerous abaxially, vascular bundles 2, almost fused, resin canals 2, small, marginal. Cones borne on apex of short branchlets, solitary, erect. Pollen cones with many spirally arranged microsporophylls; microsporangia 2; pollen not saccate. Seed cones erect, light purple at fertilization, maturing in 2nd(or 3rd) year; ovulate scales spirally arranged, sessile, with small bracts and 2 ovules adaxially. Seed scales closely arranged, large, woody, those at base and apex of cone sterile, deciduous at maturity. Bracts minute, falling together with seed scales at maturity from persistent, central axis. Seeds with large, membranous wing. Cotyledons usually 6–10. Germination epigeal. 2n = 24.

Four species: NW Africa, SW Asia (including Cyprus), W Himalayan region; two species (one introduced) in China.

1a. Branchlets pendulous; leaves triangular in cross section, 2.5–5 cm; seed cones usually 7–12 × 5–9 cm 1. *C. deodara*

1b. Branchlets usually not pendulous; leaves ± quadrangular in cross section, 1.5–3.5 cm; seed cones ca. 7

× 4 cm ..... 2. *C. atlantica*

1. *Cedrus deodara* (Roxburgh) G. Don in Loudon, Hort. Brit. 1: 388. 1830.

雪松 xue song

*Pinus deodara* Roxburgh, Fl. Ind., ed. 1832, 3: 651.

1832; *Cedrus libani* A. Richard subsp. *deodara*

(Roxburgh) P. D. Sell; *C. libani* var. *deodara*

(Roxburgh) J. D. Hooker.

Trees to 60 m tall; trunk to 3 m d.b.h.; bark dark gray, cracking into irregular scales; branches horizontal, slightly tilted or slightly pendulous; long branchlets usually pendulous, pale grayish yellow and densely pubescent with some white powder in 1st year, thereafter grayish; winter bud scales curved outward at base. Leaves radially spreading on long branchlets, in apparent fascicles of 15–20 on short branchlets, initially pale green, aging dark green, linear but broader distally, triangular in cross section, 2.5–5 cm × 1–1.5 mm, hard, stomatal lines 2 or 3 adaxially and 4–6 abaxially, apex acuminate. Seed cones shortly pedunculate, pale green, initially with some white powder, becoming reddish brown when ripe, ovoid or broadly ellipsoid, 7–12 × 5–9 cm. Seed scales flabellate-obtriangular, 2.5–4 × 4–6 cm, margin auriculate into a claw at base, cuneate in central part, incurved distally. Seeds ± triangular, ca. 1 cm; wing ca. 1.5 × 2 cm.

Native in extreme SW Xizang; extensively cultivated as an ornamental in Anhui, Fujian, Guangdong, Guangxi, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Liaoning, Shaanxi, Shandong, Taiwan, Yunnan, Zhejiang [E Afghanistan, N India, Kashmir, W Nepal, NW Pakistan]. The timber is utilized in shipbuilding, furniture, bridges, and construction.

2. *Cedrus atlantica* (Endlicher) Manetti ex Carrière, Traité Gén. Conif. 285. 1855.

北非雪松 bei fei xue song

*Pinus atlantica* Endlicher, Syn. Conif. 137. 1847;

*Cedrus libani* A. Richard subsp. *atlantica* (Endlicher)

Battandier & Trabut; *C. libani* var. *atlantica* (Endlicher)

J. D. Hooker.

Trees to 30 m tall; trunk to 1.5 m d.b.h.; crown pyramidal when young; branchlets horizontal or tilted upward distally; branchlets many 2-ranked, opposite or alternate, usually not pendulous, pale yellow-brown, pubescent in 1st year, thereafter dark gray; winter buds conical. Leaves on short branchlets in apparent fascicles of 19–28, dark green, linear, ± quadrangular in cross section, 15–35 cm × ca. 1 mm, stomatal lines 2–5 along both surfaces, apex acuminate. Seed cones tinged purple before fertilization, pale brown at maturity, ovoid-columnar to columnar, ca. 7 × 4 cm. Seed scales flabellate or obtriangular, ca. 3.5 mm wide. Seeds ± triangular, ca. 1.2 cm; wing cuneate, 1.3–1.5 cm.

Cultivated as an ornamental. Jiangsu (Nanjing Shi) [native to NW Africa (Algeria, Morocco)].

