

GINKGOACEAE

银杏科 yin xing ke

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Trees deciduous, dioecious; trunk tall, densely branched; branchlets dimorphic: both long and short. Leaves sparsely and spirally arranged on long branchlets, fasciculate on short branchlets, long petiolate, flabellate, venation parallel, close, dichotomous, open but with rare anastomoses, base broadly cuneate, margin straight, entire, apex 2-lobed or notched. Reproductive structures produced in clusters in axils of scalelike leaves at apex of short branchlets before leaves expand. Pollen cones pedunculate, pendulous, catkinlike; microsporophylls numerous, spirally and rather sparsely arranged; microsporangia 2, elliptic; pollen sacs longitudinally dehiscent. Ovules borne on a long, dichotomously branched peduncle sometimes dividing into 3–5 terminal forks; each fork discoid at apex, bearing an erect, sessile ovule; usually only 1 seed ripening per peduncle. Seeds long pedunculate, pendulous, drupelike, with a single integument differentiated into a fleshy, succulent sarcotesta, a bony sclerotesta, and a membranous endotesta; female gametophyte tissue abundant. Cotyledons 2(or 3). Germination hypogeal. $2n = 24^*$.

• One genus and one species: China.

Cheng Wan-chün & Fu Li-kuo. 1978. Ginkgoaceae. In: Cheng Wan-chün & Fu Li-kuo, eds., Fl. Reipubl. Popularis Sin. 7: 18–23.

1. GINKGO Linnaeus, Mant. Pl. 2: 313. 1771.

银杏属 yin xing shu

Salisburia Smith.

Morphological characters and geographical distribution are the same as those of the family.

1. *Ginkgo biloba* Linnaeus, Mant. Pl. 2: 313. 1771.

银杏 yin xing

Salisburia adiantifolia Smith; *S. biloba* (Linnaeus) Hoffmanssegg.

Trees to 40 m tall; trunk to 4 m d.b.h.; bark light gray or grayish brown, longitudinally fissured especially on old trees; crown conical initially, finally broadly ovoid; long branchlets pale brownish yellow initially, finally gray, internodes (1–) 1.5–4 cm; short branchlets blackish gray, with dense, irregularly elliptic leaf scars; winter buds yellowish brown, ovate. Leaves with petiole (3–)5–8(–10) cm; blade pale green, turning bright yellow in autumn, to 13 × 8(–15) cm on young trees but usually 5–8 cm wide, those on long branchlets divided by a deep, apical sinus into 2 lobes each further dissected, those on short branchlets with undulate distal and margin notched apex. Pollen cones ivory colored, 1.2–2.2 cm; pollen sacs boat-shaped, with widely gaping slit. Seeds elliptic, narrowly obovoid, ovoid, or subglobose, 2.5–3.5 × 1.6–2.2 cm; sarcotesta yellow, or orange-yellow glaucous, with rancid odor when ripe; sclerotesta white, with 2 or 3 longitudinal ridges; endotesta pale reddish brown. Pollination Mar–Apr, seed maturity Sep–Oct.

• Scattered in broad-leaved forests and valleys on acidic, well-drained, yellow loess (pH = 5–5.5); 300–1100 m. Perhaps native in NW Zhejiang (Tianmu Shan); widely and long cultivated below 2000 m in Anhui, Fujian, Gansu, Guizhou, Henan, Hebei, Hubei, Jiangsu, Jiangxi, Shaanxi, Shandong, Shanxi, Sichuan, Yunnan.

A relict species of the Mesozoic era, this and other (extinct) species of *Ginkgo* were formerly widespread throughout the world. The atavistic, leaf-marginal seeds of one cultivated clone may suggest an affinity with the extinct pteridosperms. *Ginkgo biloba* is now a rare species in the wild, but has been widely cultivated as an ornamental, probably for more than 3000 years. It provides shade and is tolerant of a wide range of climatic and edaphic conditions, including pollution. It is sacred to Buddhists and is often planted near temples. The wood is used in furniture making, the leaves are medicinal and used for pesticides, the roots are used as a cure for leucorrhoea, the seeds are edible, and the bark yields tannin.

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