Twigs (dried) (image © J.S. Strijk, www.asianfagaceae.com).

SCIENTIFIC NAME: *Castanopsis tessellata* Hickel & A. Camus

COMMON NAME(S): **Cà ổi lá đa; Cả ổi ô vuông; sồi gai; kha thụ rỗ** (Vietnam)

FAMILY: Fagaceae

Joeri S. Strijk *(Alliance for Conservation Tree Genomics ACTG)*
Karina Orozco & Amy Byrne *(The Morton Arboretum)*

Threat status

VU **Vulnerable.**

Botanic description

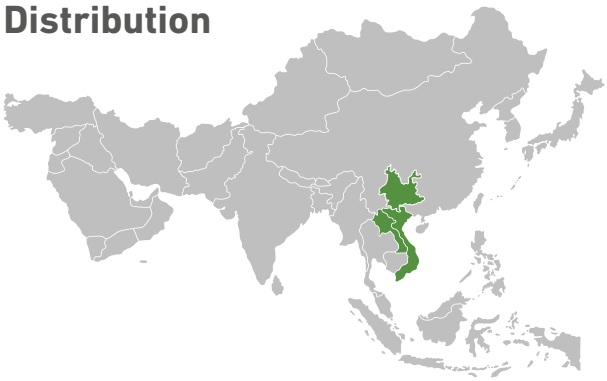
Large tree, up to **25-30 m tall.**

Twigs, buds and young leaves with long petioles covered with reddish pubescence. Lenticels marginally visible on twigs. **Buds** ovoid, with oval scales.

Leaves quite coriaceous when mature, often acuminate at the apex and base. Lamina up to 16-20 cm long and 4.5-6 cm wide, hairless and very shiny above, but with reddish hairs below especially on veins and towards the margins.

Midrib very prominent on the underside, lateral veins up to 16-20 pairs, quite prominent below, distinctly anastomosing towards the margins, veins raised on the underside. Margins thickened, slightly recurved. **Petiole** up to 10-25 mm long, hairless when mature.

Distribution



Cambodia, Laos, Yunnan (China).
Often in valleys and moist sparse forests beside streams. Between 130-500 m.

Male catkins unequal, in false terminal panicles, quite short, axis with dense reddish hairs. **Male flowers** solitary. Perianth normally in 6 obtuse divisions, with a gold-coloured tomentum, elongated staminal filaments.

Female catkins sometimes isolated, often in sets of 2, or at the top of twigs, more rarely arranged laterally, main axis quite strong, longer than in male catkins, silky-gold, often slightly curved. **Female flowers** often grouped in sets of 2 or 3, covered with a golden indumentum, 3 styles per perianth, normally 9 per cupule, linear, erect, rounded at the top.

Female (lower section) and male (upper section) flowers in inflorescences (image © H.T. Son).

Infructescence up to 20-30 cm long, axis often somewhat bare at the base, and completely hairless at maturity.

Cupules numerous on the same axis, grouped in sets of 2-3, up to 2,5-4 cm in diameter, rounded. Wall fairly thick, with dense reddish hairs on the outside and inside, dehiscent by 4 valves, covered with dense spines, up to 8-9 mm long, subulate, fused only at the base and there covered with flattened hairs. Glabrous at the top. **Nuts** 2-3 per cupule, up to 15 mm long and 15-19 mm wide, with a reddish flattened tomentum.

Mature fruit (dried), showing valves and dehiscence (image © J.S. Strijk, www.asianfagaceae.com).

Recommended seed collecting practice for nursery propagation

When fruits are ripe, collect seeds directly from the tree by shaking the branches using long bamboo poles. As seed viability decreases rapidly after falling on the ground and these are prone to predation damage and pests, collecting directly from the tree should be given priority over collecting fruits from the ground. If seed-set is less abundant, infructescences and seeds available on the ground can also be collected for use in nursery propagation.

Spiny fruits and infructescences should not be dehusked (i.e. no removing of the spiny cupules to expose the nuts). This exposes the nuts to pests and desiccation during transport and storage, and complicates identification of collected materials. Infructescences should also not be 'peeled' to remove individual fruits. Groups of trees in this species, fruiting in close proximity of each other can be sampled for seeds as a '*local population*' and collected materials can be mixed in the same bag. Seeds collected from trees separated from each other by more than 100-150m should not be mixed, but be kept in separate bags. If possible, geographic information should be collected for each *'local population'* and each bag of seeds collected from it. It would also be good practice to include some small branches and leaf material from the fruiting trees with each collected bag of seeds to aid in identification.

Mature fruits (fresh) showing closed cupules and position on branch (image © H.T. Son).

Phenology

Flowering:
May-June.

Fruiting:
August-December(?)

Method of dispersion and/or pollinating agent:
Rodents (squirrels; rats; mice?).

Light requirements or ecological guild:
To be confirmed.

Uses

Nuts edible.