



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

SCIENTIFIC
NAME:

Lithocarpus annamensis

(Hickel & A. Camus) Barnett

COMMON
NAME(S):

Kor fa (Laos)

ກໍຝາ (Lao alphabetic)

**Dẻ trung bộ;
Sồi đá trung bộ** (Vietnam)

FAMILY:

Fagaceae

Joeri S. Strijk (*Alliance for Conservation Tree Genomics ACTG*)

Karina Orozco & Amy Byrne (*The Morton Arboretum*)



Botanic description



Tree, up to 20-25 m. Trunk large and fluted. Bark initially scaly with whitish hairs, then brown and glabrous, thick lenticellate. Buds ovoid to rounded, with few scales, oval-obtuse, whitish.



Leaves thick, obovate-lanceolate, attenuate. Apex obliquely acuminate, base attenuate-cuneate. Lamina 13- 20 cm long and 5-11 cm wide, leathery. Upperside glabrous and shiny, underside initially scaly-whitish, margins entire, apex occasionally wavy, midrib prominent on both sides. Lateral veins 10-12 pairs, spaced and parallel, curved upwards, slightly protruding below. Middle veins at an angle of 55 degrees with the median. Secondary venation indistinct. Petiole 1-1.2 cm long.

Distribution

Laos, Vietnam.

Sandy habitat types, and on very fertile red soils. Reported between 300-1100 m.



Threat status

EN

Endangered.



Branch: leaves upper surface and lower surface (image © J.S. Strijk, www.asianfagaceae.com).

♀ Female catkins with flowers fused in sets of 3, styles 3, somewhat elongated and free.



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



Mature fruits (fresh) (image © H.T. Son).



Fallen infructescences and fruits (image © J.S. Strijk, www.asianfagaceae.com).

♂ **Infructescences** an axis bearing female flowers at the base, and male catkins apical. Up to 8-15 cm long, very dense and thick, more so at the top than at the base, lightly lenticellate except at the base. **Fruits** tightly arranged, ripening biennially. **Cupules** more or less fused at their base, in sets of 3, sessile, very small, almost flat, equal to about 1/4-1/6 of the acorn in height, not very hollow, 14-15 mm in diameter, with rudimentary scales, oval-acute, not

very marked, whitish-pubescent. **Nut** very exserted, turbine, much wider than the cupule, less high than wide, 10-13 mm tall and 17-22 mm in diameter. Nut apex truncate to very briefly mucronate, often cracked longitudinally, covered with very short, dense, appressed, whitish or greyish pubescence. **Pericarp** without lacunae or septa. **Scar** concave, 7-9 mm in diameter.

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.

Phenology

Flowering:
September-December.

Fruiting:
June-October.

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

Light requirements or ecological guild:
To be confirmed.

Uses



Nuts edible.