

Introducing the long-lived trees of the Annamites... *Keteleeria evelyniana* and *Fokienia hodginsii*



Arguably the most impressive trees in the forests of the Greater Annamites. These two species are also the longest-lived, and silently observe generations of activities in the forest. Scientists believe that these trees can live up to 600 years!



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***Keteleeria evelyniana*...**
IUCN, 2002, Globally near threatened;
Vietnam Red Data Book, 1996, vulnerable.

Keteleeria evelyniana is found in moist evergreen and dry evergreen hill forests, conifer and mixed semi-evergreen forests at elevations between 700-3000m, but mostly between 1000-2000m. In Lao PDR and Vietnam, this species has very specific habitat requirements, being found only on well drained ridges gentle slopes, and flat areas at high elevations. The open conifer forest in montane areas of northern Lao PDR is dominated by *K. evelyniana*, which may occur in pure stands or mixed with *Pinus kesiya* and species of Fagaceae. In Vu Quang Nature Reserve, in the Vietnamese northern Annamites, only eight mature trees are known to exist.

Fast facts

K. evelyniana may reach up to 35 m in height, and up to 2.2m in diameter. Their distribution is from the subtropical areas of southern China southward into Lao PDR and Vietnam. *K. evelyniana* appears to grow faster in secondary forest areas.

Family history

Taxonomy in the *Keteleeria* genus is unclear and biological aspects of this species are still largely unknown, making every discovery of *K. evelyniana* highly significant.

Importance to people

As timber, this species is light but durable, making it an attractive and useful species. It is used in construction, railroad ties, mine timbering and sundry house implements. In Lao PDR, *K. evelyniana* is often used for houseposts and sometimes beams and roof tiles. The seeds are rich in essential oil, and can be used for burning and soap manufacturing.

***Fokienia hodginsii*...**
IUCN, 2002, Globally near threatened;
Vietnam Red Data Book, 1996,
endangered.



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Humid montane forests between 600-2,200 m may support a rich forest dominated by *Fokienia hodginsii* amongst other key species. *F. hodginsii* is widespread in mixed broadleaf and coniferous forest on ridges and slopes, and may also form pure stands on ridges and plateaus above 1,200m such as in Kon Ka Kinh National Park. The diversity of conifers is high in montane forests, with several genera present (e.g. *Podocarpus*, *Calocedrus*, *Fokienia*, *Cephalotaxus*, and *Taxus*) in the southern Annamites.

Fast facts

F. hodginsii can reach 25-30 m in height and 1.5m in diameter, although the diameter can reach up to 2.2m on flat land. The cool and moist conditions of *F. hodginsii* forests often promote lush growth of epiphytes, such as orchids and grasses, on branches.

Family history

F. hodginsii is the only species in the genus *Fokienia* in the cypress family (cupressaceae), distributed in southern China, northern Lao PDR and Vietnam.

Importance to people

This species is widely used in remote mountain areas of the Greater Annamites for house and furniture construction due to its longevity, pest resistance and ability to withstand the harsh climate of these areas. The tree contains a pungent essential oil concentrated in its roots. *F. hodginsii* is highly valued as a firewood during the rainy season as it has an amazing ability to burn even when wet!

What we are doing

Keteleeria evelyniana and *Fokienia hodginsii* are protected under Vietnamese law (Decree 48) and exploitation and use are restricted. WWF is supporting the Governments of Lao PDR and Vietnam in reforming the forestry sector, which will have long term benefits for these highly valued species.

Threats to both species

Long histories of human impact in the northern Annamite range of Lao PDR and Vietnam have led to the degradation of large areas of what was once montane evergreen forest. Such forests have been replaced by thickets or savannas with diverse structures depending on the degree of degradation and time since such disturbance began.



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Find out more about WWF's activities in the Greater Annamites Ecoregion at

<http://www.wwfindochina.org> and www.panda.org/asiapacific/annamites