

# NOTE ON *QUERCUS GRIFFITHII* HOOK. f. & THOMSON EX MIQ.: AN INTERESTING WILD ECONOMIC PLANT OF NORTH-EAST INDIA

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**Abstract :** The present paper deals with the taxonomy, phenology, ecology and distribution of the *Quercus griffithii* Hook.f. & Thomson ex Miq.

## INTRODUCTION

The Genus *Quercus* L., commonly called Oak tree, is represented by ca 531 species in the World (Corcuera *et al.*, 2002), widely distributed in North and South America, Asia, Europe and North Africa. The genus is concentrated in South-East Asia and thought to be the centre of origin of most of the species of this genus. About 14 species of *Quercus* have been reported from North-East India, only from Arunachal Pradesh 10 species are reported by Giri *et al.* (2008).

*Quercus griffithii* Hook.f. & Thomson ex Miq. occurs in most parts of North-Eastern States and draws attention of botanists for its peculiar leaf and nut characters. This species shows similarity with *Quercus lanata* Sm., but differs in having less pubescent cupule (Grierson and Long (1983). Literature reveals sporadic works on this species have been published by Hooker (1890), Kanjilal *et al.* (1940), Haridasan and Rao (1987) and Giri *et al.* (2008) from different States of North-East India.

The specimens of *Quercus griffithii* Hook.f. & Thomson ex Miq. were collected and studied in detail in BSI campus by the authors. The specimens of this species housed in ASSAM Herbarium at Botanical Survey of India, Eastern Regional Centre, Shillong, Meghalaya were examined and studied in detail. The characters of live specimens and herbarium specimens were compared and have been included in this paper. The parenthesis following vernacular names indicates the tribes Khasi (K), Assamese (Ass), Aka (Ak), Monpa (M) and Nepali (N).

*Quercus griffithii* Hook.f. & Thomson ex Miq., Ann. Mus. Bot. Lugduno-Batavi. 1: 104. 1863; Hook.f., Fl. Brit. India 5: 602. 1888; Kanjilal *et al.*, Fl. Assam 4: 307. 1940; Harid. & R.R. Rao, Forest Fl. Meghalaya 2: 861. 1987; Giri *et al.*, Materials Fl. Arunachal Pradesh 2: 431. 2008.

*Vern. name:* Dieng-wah (K), Khasia Badam (Ass), Si-si (N), Sokubum (Ak), Bajrar (M).

Medium-sized deciduous tree, 12-20 m high; branchlets yellowish-grey pilose, young parts rusty-pubescent; bark warty, dark ashy-grey, deeply furrowed; blaze reddish, fibrous; Leaves crowded at the tip of branches, usually 3 - 4; leaf blade obovate, obovate-elliptic or oblanceolate-elliptic, 6.4-20 × 3.5-10.2 cm, abaxially with dense greyish stellate hairs, rarely glabrescent, base sub-cordate, rounded to narrowly cuneate, apex acuminate, margin serrulate (usually 8-18 tooth-like on each side), usually entire towards the base, glabrous above when mature, softly rusty pubescent beneath when young, yellowish-grey pubescent when mature; midvein abaxially with long simple hairs, lateral nerves 12-18 on each side of midvein, almost parallel, terminating in the denticulation; tertiary veins abaxially conspicuous. Male spikes slender, drooping, many together, 4.8-9.7 cm long, yellow. Female spikes on young shoots, clustered at tip. Perianth segments 5-6, hairy. Stamens 8-12; anthers hairy. Cupule almost sessile, solitary or in fascicles of 2 or 3, cupular (or hemispherical), 0.9-1.4 cm across, enclosing 1/4 or 1/3 or 1/2 of nuts, smooth inside; bracts narrowly ovate-triangular, adpressed. Nuts ellipsoid to ovoid-ellipsoid, 1.4-1.9 × 0.6-1.3 cm, pale green when young, yellowish when mature; scars 0.4-0.6 cm across, slightly raised; style

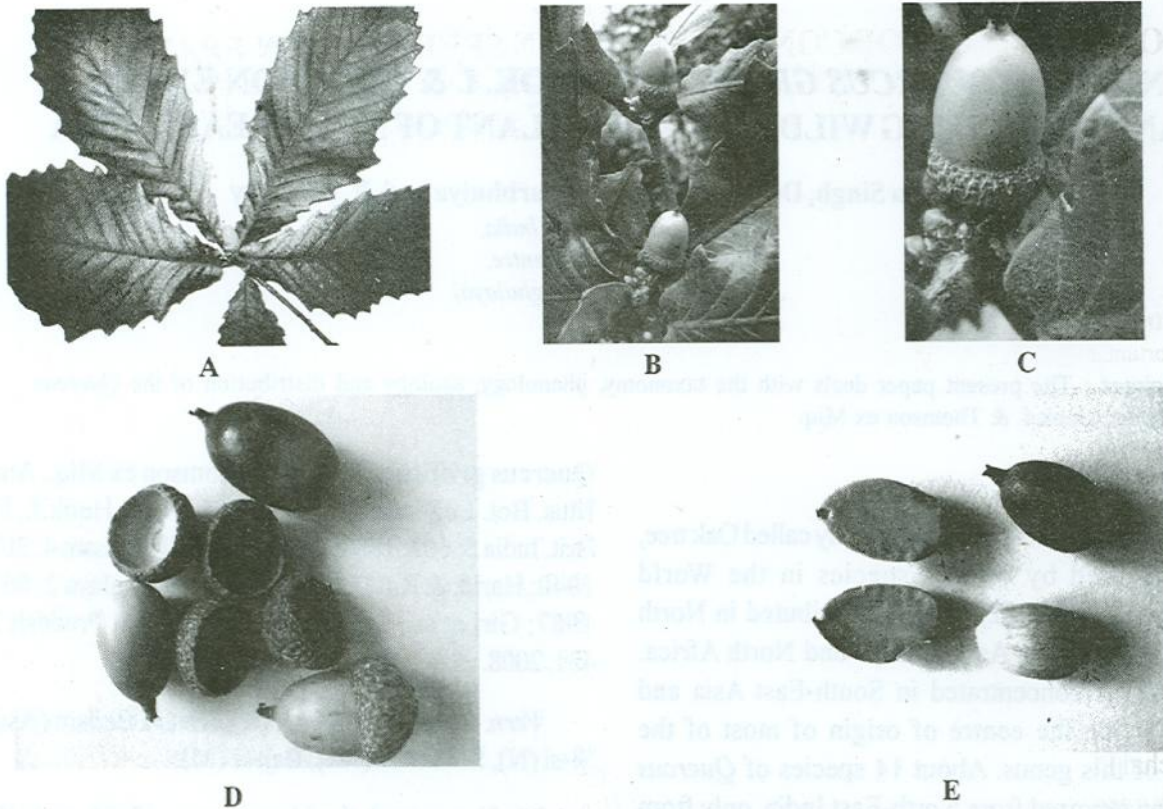


Fig. 1. Different stages in *Quercus griffithii* Hook.f. & Thomson ex Miq. A,B,C : Habit, D: Nuts and cupules, E: Cotyledons.

persistent. Cotyledons yellowish-brown, smooth, 1.4-1.7 × 0.8-0.9 cm.

**Flowering & Fruiting:** April-November.

**Habitat:** Grows in open places on hilly slopes between 600-3000 m in broad-leaved forests.

**Distrib.** INDIA: (Arunachal Pradesh, Manipur, Meghalaya and Sikkim), BHUTAN, CHINA, MYANMAR, NEPAL, SRI LANKA AND THAILAND.

**Specimens examined:** Meghalaya: East Khasi Hills, BSI Campus, 17<sup>th</sup> August 2009, *Bikarma Singh, DK Roy, HA Barbhuiya & R Daimary*-118600; Barapani, 26<sup>th</sup> October 1930, *PC Kanjilal*-8736; Shillong, 11<sup>th</sup> April 1964, *GK Deka*-38116; Law Lyngdoh, 2<sup>nd</sup> August 1930, *PC Kanjilal*-8318; Mawphlang, 18<sup>th</sup> September 1915, *U Kanjilal*-5832. Arunachal Pradesh: Kameng, 11<sup>th</sup> May 1958, *G Panigrahi*-15428; 7<sup>th</sup> November 1997, *AA Mao*-102500; 16<sup>th</sup> April 1996, *KP Singh*-102071.

**Economic uses:** The cotyledons of the mature nuts are eaten by Khasi and Garo Tribes of Meghalaya, commercially sold in market at a price of Rs. 15-20 per

250 grams. The timber is highly priced and useful in making furnitures.

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