

Present Status of *Litsea sikkimensis* (Meisner) Kostermans ex Long in India

T. Bhuinya, P. Singh & Sobhan Kr. Mukherjee¹

Botanical Survey of India, CGO complex, Salt Lake city, Kolkata- 700 064, West Bengal, India

¹Department of Botany, University of Kalyani, Kalyani – 741 235. W.B. India.

E-mail: sobhankr@yahoo.com

Abstract

Litsea sikkimensis (Meisner) Kostermans ex Long is a rare plant, which has been identified from 3 collections made in Sikkim and Myanmar. Previously it was treated as a species of *Lindera* due to unavailability of its male flowers. Present survey failed to locate this species in any part of Sikkim. Plant taxonomists working in Sikkim, North Bengal, Eastern Nepal and Myanmar are urged to collect this rare species and study its status in the light of present knowledge.

Keywords: *Litsea sikkimensis*, Sikkim, Rare

Litsea H.J. Lam is the largest genus in the family Lauraceae that is well represented in Sikkim with at least 14 species. *Litsea sikkimensis* (Meisner) Kostermans ex Long (= *Lindera sikkimensis* Meisner) is a rare species known from collections made between 1849 – 1919 from Sikkim and Myanmar. Sir J. D. Hooker first collected it in 1849 from the Lachen valley in North Sikkim at an altitude between 3500 - 3650 m (Hooker 1886). Later, it was collected from Kanglassa at 3350 m in 1912 by G. H. Cave and reported as *Lindera? sikkimensis* Meisner by W. W. Smith (Smith 1913) and from Myanmar (Upper Burma) in the West flank of N'Maikha-Salwin divide by George Forrest in 1919 (Long 1984).

The species is represented by Hooker's collections housed at G-DC (holotype) and K (isotype) and the Cave's specimen at E (Edinburgh). Hooker, Cave as well as Forrest could collect the plant with female flowers and C. F. Meisner identified the plant as *Lindera sikkimensis* Meisner from female flowering twigs only. Later on A.J.G.H. Kostermans and D. G. Long assigned it to the genus *Litsea*, finding the species closely allied to *Litsea sericea* (Wall. ex Nees) Hook.f. The two genera closely resemble each other except that the anthers are 2-celled in *Lindera* Thunb., whereas 4-celled in *Litsea* H.J. Lam. Actually there is no collection of male flowers and fruiting twigs from which the plant could be confirmed to be a species of *Litsea*. Such paucity of materials compelled us to revisit the type locality of *L. sikkimensis* (Meisner) Kostermans ex Long at North Sikkim to collect some fresh flowering plants as it necessitated for a reversionary work of the genus in India.

The plant is a small tree nearly 4-5 m tall, flowering in April – May and can be easily identified by its deciduous nature, and young flush of leaves appearing with or just prior to the flowers. We set out in May 2006 to visit different locations in North Sikkim and had chosen Chungthang at the confluence of the two rivers Lachen and Lachung, as the base camp. First, we surveyed the Lachen valley reaching up to 2700 m. The type location at

Lachen is a major tourist spot in the state primarily inhabited by Lepchas and some Bhutias and Nepalese. We traced a commonly available species *L. kingii* at 2000 – 3000 m but could not locate *L. sikkimensis* till we reach the altitude of 3900 m at Thangu where the sub-alpine vegetation starts, the occurrence of Lauraceous flora become less prevalent. Next, we visited Lachung valley at 2500 m with similar climatic condition like that of Lachen and up to Yumthang (4000 m) but the species could not be traced. Prospective pockets at Kanglassa, Chhangu up to 3600 m in South Sikkim district were also visited, but in vain.

The result of our study indicates that the species has not been collected from India since 1912 till present date. Its distribution in India is represented by only two collections from Sikkim, though the state has been explored by eminent collectors like Sir J. D. Hooker (1854), G. A. Gammie (1894), W. W. Smith and G. H. Cave (1911, 1913), S. R. Rao (1963) and more recently, by various investigating parties working for the flora of the state, districts and protected areas.

Unavailability of the species at Lachen poses the question of its extinction from the type locality, which may be due to disturbance caused by biotic factors or climatic changes. Being a favorite tourist spot, the valley is under extreme biotic pressure. Hence, the present status of the location should be investigated and adequate measures should be taken to preserve its flora and fauna and explorations must be conducted in other parts of Sikkim from time to time to locate *L. sikkimensis*. Inherent biological reasons for the rarity of the species can also not be ruled out.

Recently, in 2003 *Lindera sikkimensis* Meisner has been reported to grow in Myanmar (Kress 2003) at places like Chin, Kachin, Mandalay and Sagaing. Hence we urge the taxonomists working in Sikkim, Darjeeling and Eastern part of Nepal to confirm its identity as *Litsea sikkimensis* (Meisner) Kostermans ex Long and investigate on the occurrence of the species, which will help in determining its present status. The key characters of the species are given below to facilitate its recollection.

The young shoots are striated, reddish brown, densely villous and provided with leaf buds those are not covered by any scales. In vegetative condition, the plant bears small, elliptic to obovate lamina, up to 8 cm long, acute or moderately obtuse, glabrous and dull green below. The umbels are subsessile with 3-6 dioecious flowers; anthers comprise of 4 locules that show valvular dehiscence.

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