

# Notes on Taxonomic Status of *Phlogacanthus gracilis* (Acanthaceae) and Typification of the Name

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## फ्लोगाकैथस ग्रेसिलिस (एकैन्थेसी) के वर्गीकरण पर टिप्पणी एवं इस नाम के प्ररूपण

रोहन मैती एवं सुधांशु शेखर दाश

### सारांश

इस लेख में फ्लोगाकैथस ग्रेसिलिस टी. एंडरसन एक्स बर्किल (एकैन्थेसी) को *स्यूडेरान्थेमम लेप्टैन्थम* (सी.बी. क्लार्क) लिंडाऊ के विषमप्ररूपी पर्यायवाची के रूप में संक्षेपित किया गया है। इस लेख में फ्लोगाकैथस ग्रेसिलिस टी. एंडरसन एक्स बर्किल नाम के लिए चयनप्ररूप (लेक्टोटाइप) भी निर्दिष्ट किया गया है।

### ABSTRACT

*Phlogacanthus gracilis* T. Anderson ex Burkill (Acanthaceae) has been reduced here as a heterotypic synonym of *Pseuderanthemum leptanthum* (C.B. Clarke) Lindau. Lectotype for the name *Phlogacanthus gracilis* T. Anderson ex Burkill is also designated here.

**Keywords:** Acanthaceae, Lectotype, *Pseuderanthemum*, Assam, syn. nov.

## INTRODUCTION

C.G.D. Nees von Essenbeck (1832), described the genus *Phlogacanthus* (Acanthaceae) in his '*Acanthaceae Indiae Orientalis*', published in the third volume of '*Plantae Asiaticae Rariores*' edited by N. Wallich. The genus with c. 42 species worldwide (POWO, 2022) is distributed in South and South-East Asian countries (Maity & Dash, 2020; 2021). Taxonomic treatments or enumerations on Indian *Phlogacanthus* (Wallich, 1830-1831; Nees, 1832; Anderson, 1867; Beddome, 1872, Clarke, 1884, Burkill, 1925, Kanjilal & al., 1934, Benoist, 1935, J.R.I. Wood, 1994) are based on the historic collections with very limited information. In India, till date 14 taxa (13 spp. and 1 var.) were recorded among which 1 species, *Phlogacanthus gracilis* T. Anderson ex Burkill was reported as doubtful (Arisdason & al., 2020).

*Phlogacanthus gracilis* is an Indian endemic found in Arunachal Pradesh and Assam, which was described by

Burkill (1925) in his '*The Botany of the Abor Expedition*' based on collections from multiple gatherings. In course of reinvestigation of Indian *Phlogacanthus*, authors realized the need of typifying the name *Phlogacanthus gracilis* T. Anderson ex Burkill. Further characterization of its morphology revealed its conspecificity with *Pseuderanthemum leptanthum* (C.B. Clarke) Lindau. Therefore, *Phlogacanthus gracilis* T. Anderson ex Burkill has been reduced here as a heterotypic synonym of *Pseuderanthemum leptanthum* (C.B. Clarke) Lindau and a lectotype has been designated for the name *Phlogacanthus gracilis* T. Anderson ex Burkill.

## TAXONOMIC TREATMENT

***Pseuderanthemum leptanthum*** (C.B. Clarke) Lindau ['*leptanthus*'] in Engl. & Prantl, Nat. Pflanzenfam. 4(3b): 330. 1895; Arisdason & al. in S.S. Dash & A.A. Mao (eds.), Fl. Pl. India, Dicot 2: 299. 2020. *Eranthemum leptanthus* C.B. Clarke in Hook.f., Fl. British India 4: 500. 1884. *Siphonoeranthemum lepthanthum* (C.B. Clarke) Kuntze,

Revis. Gen. Pl. 2: 495. 1891. Lectotype (designated by Borah & al., 2020): India: Arunachal Pradesh, Mishmee Hills, s.d., *Griffith* 6181, K000885486, digital image!

*Phlogacanthus gracilis* T. Anderson ex Burkill, Rec. Bot. Surv. India 10: 336. 1925, *syn. nov.* Type: India: Arunachal Pradesh, “from Behrung and Pillung (37108) to Pasighat”, 12.12.1911 I.H. Burkill, lectotype, CAL! [CAL0000033992!, designated here (Fig. 1)]; paralectotype: India: Arunachal Pradesh, Janakmukh, 16.12.1911, I.H. Burkill 37174 (CAL, acc. no. 361669!).

*Notes:* Burkill (1925) cited collections of four gatherings (1 from Assam and 3 from Arunachal Pradesh) in the protologue of *Phlogacanthus gracilis* i.e. 1. from Assam, “collected by an unrecorded botanist at “Sykhwa”... to be Saikhoa (in *Zone 1*)”; and following three from Arunachal Pradesh by Burkill himself, which are: 2. “on the Plains (*Zone 2*) from Behrung and Pillung (37108) to Pasighat”; 3. “In the Hills found (in *Zone 3*) at Janakmukh, upon the clearing of Rammidambang (36408) at 4400 ft or 1341 m over Renging”; and 4. “at almost same altitude on the south face of Bapu, (in *Zone 4*) at Rotung and over to 5500 ft. or 1676 m. at Babuk and then in deep shade over the Igar stream at 3100 ft. or 945 m. (36114). Upon thorough search in CAL, ASSAM, B, BM, E, K, NY, P and SING; only two specimens could be traced in CAL, “37108” (CAL0000033992!) and “37174” (CAL, accession no 361669!). In *Zone 3*, two collection localities were mentioned “Janakmukh” and “Rammidambang”. But, Burkill’s collection number 37174 from Janakmukh on 16<sup>th</sup> Dec. 1911, though not mentioned in the protologue can be considered as the original materials; similarly, collection numbers for the specimens from Rotung and Babuk in *Zone 4*, also not mentioned in the protologue. CAL0000033992! is selected here as the lectotype for the name *Phlogacanthus gracilis* T. Anderson ex Burkill according to the provisions of the *Shenzhen Code* (Turland & al., 2018) as all the details of the specimens matches with the protologue of *P. gracilis* and preserved better than the other specimen found.

Morphological studies of the specimen CAL0000033992!, comparison with the lectotype of *Pseuderanthemum leptanthum* (C.B. Clarke) Lindau (K000885486, digital image!) [designated by Borah & al., 2020] and brief description of *Phlogacanthus gracilis* provided in the protologue: “*Its flowers were open in December and January. They are lilac or at times white*”, confirms its similarity with *Pseuderanthemum leptanthum* (C.B. Clarke) Lindau; therefore, proposed here as the heterotypic synonym of the latter. The genus *Pseuderanthemum* Radlk. is readily distinguishable from *Phlogacanthus* Nees by its salverform corolla with slender tube not or scarcely enlarging towards apex and spreading limbs (vs tubular curved corolla broadly

enlarging towards apex with non-spreading limbs) and mostly bifid stigma (vs bilobed or subentire stigma).

*Distribution:* Burkill (1925) while describing *Phlogacanthus gracilis* cited one specimen from Assamese origin (from Saikhoa) collected by an unknown author from CAL; but no such specimen could be located. On the other hand, *Pseuderanthemum leptanthum* was previously reported only from Arunachal Pradesh in India and Myanmar (Borah & al., 2020). The present communication substantiate the distribution of *Pseuderanthemum leptanthum* in Assam (ASSAM!, acc. no. 21687!, 21690!, 21691!). Arisdason & al. (2020) reported this species only from Meghalaya in India; however, no such specimen could be traced from Meghalaya. We came across one specimen P03580063 (digital image!) with “*Griffith 6181*”, which shows its distribution in British East Bengal (Bangladesh) but other duplicates of the same number “*Griffith 6181*” in K (K000885485, digital image!; K000885486, digital image!) show locality as ‘Mishmee’ which is in Arunachal Pradesh. Therefore, distribution of this species in Meghalaya and Bangladesh is doubtful.

*Additional specimens examined:* INDIA, Assam, Rajgorhali, 5.1.1914, U. *Kanjilal* 3256 (ASSAM, accession no 21687!); Lakhimpur district, Jaipur, 20.12.1948, G.K. *Deka* 22782 (ASSAM, accession no 21690!, 21691!).

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Fig. 1. Lectotype of *Phlogacanthus gracilis* T. Anderson ex Burkill © Director, Botanical Survey of India, Kolkata, India

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