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Cover: A Warty Hammer Orchid *Drakaea livida* gets pollinated by a male thynnine wasp through 'sexual deception' — a colour pencil reproduction of photos by ron_n_beths (flickr.com) and Rod Peakall; Water colour reproduction of Flame Lily *Gloriosa superba* — photo by Passakoran_14; and a bag worm and its architectural genius (source unknown). Art work by Pannagasri G.



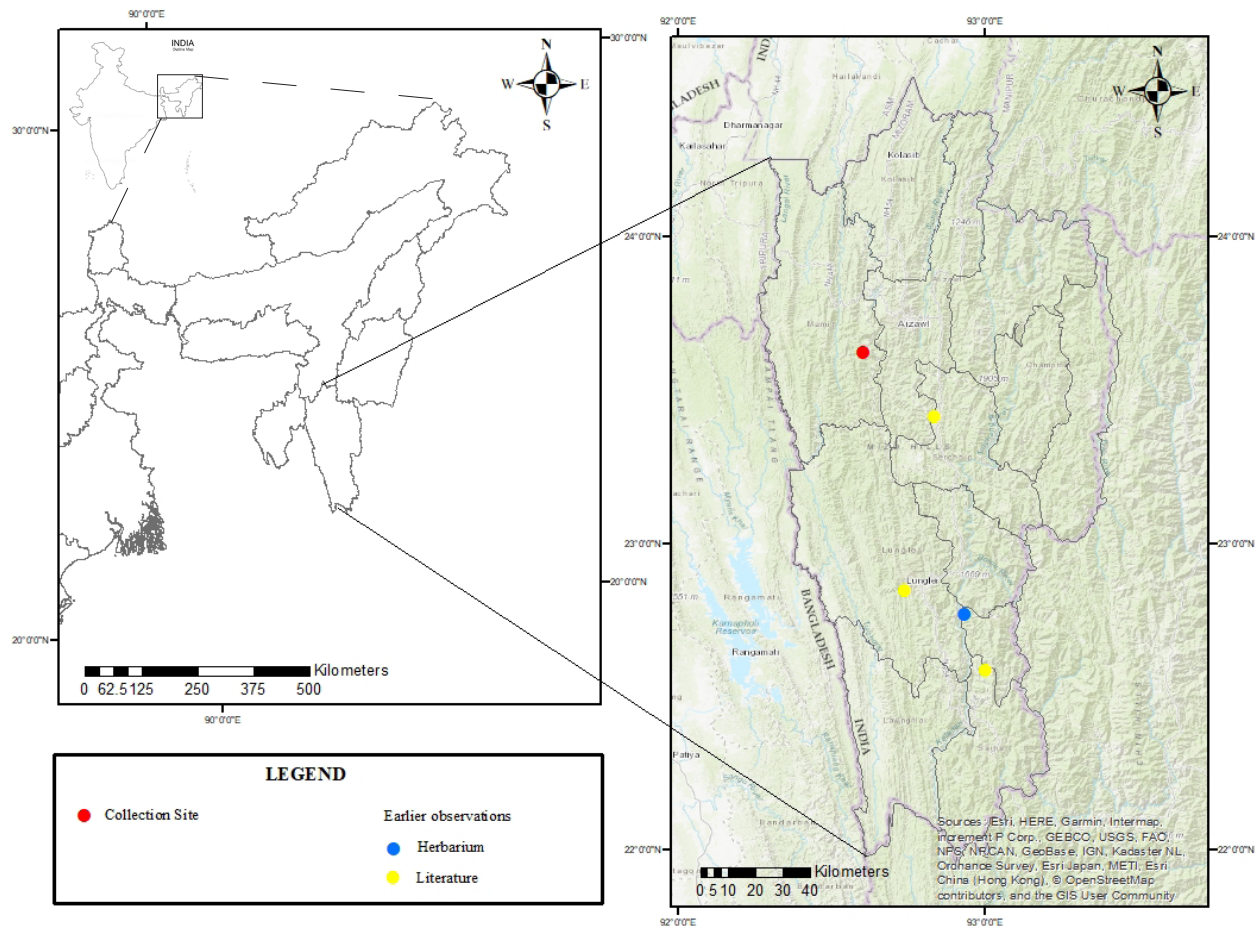


Image 1. Location map of the collection site and distribution of *Strobilanthes parryorum* in Mizoram, India.

classification is therefore variously described as within the Indo-Burma biodiversity hotspot (Rai 2012) or the eastern Himalaya (Banerjee et al. 2022).

Cecil Ernest Claude Fischer of the Indian Forest Service and later of the Royal Botanic Gardens, Kew, was the first to systematically document the flora of Mizoram (Fischer 1928a). By 1938, he was able to identify 20 taxa of *Strobilanthes* (Fischer 1938), to which the flora of the state adds only another four species (Sinha et al. 2012). In May 1928, Fischer described *Strobilanthes parryorum* C.E.C.Fisch. based on herbarium specimens collected by Mrs A.D. Parry (Fischer 1928b; POWO 2025b), who found the plants in March 1927 at Darzo (22.932° N, 92.956° E), then a tribal chieftaincy in Lushai Hills, the provincial name of Mizoram under British Colony.

During floristic explorations in Mizoram, India, in November 2024, the first author collected several plant specimens at Ailawng (23.684° N, 92.632° E), a village north of Darzo (Image 1). After identifying the different plants, some evidently of the genus *Strobilanthes*, were not easily identifiable at the level of species (Image

2). They were examined using taxonomic records, and after critical study, the specimens were identified as *S. parryorum* by comparison with the type sheets housed at Kew (catalogue numbers K000883146 and K000883147), and the recent account available in *Flora of India Volume 20* (Albertson & Venu 2023). Parry collected the initial set of specimens from the Lushai Hills during July 1927 and also in March 1928. These specimens were deposited at the Royal Botanic Garden herbarium, Kew. Later, it was collected by M.S. Khan in 1965 (Collection No. 1122) from Chittagong Hills, Bangladesh, which he deposited at the Royal Botanic Garden Herbarium, Edinburgh. In India, no additional specimens are available anywhere, including ASSAM (BSI, Eastern Regional Centre, Shillong), MH, CAL, BSD, and RHT. Photographs were taken using a Canon EOS R10 camera, a scanning electron micrograph of the pollen using Hitachi TM4000Plus II, and the location map generated with ArcGIS 10.8. Herbarium specimens were prepared, and a voucher specimen (LC 001/MCCH) was deposited in the Herbarium of the Department of Botany, Madras Christian College, Tambaram, Chennai,

Tamil Nadu, India. The description of pollen morphology was based on terminologies established by Erdtman (1952) and Punt et al. (2007). This collection represents the first confirmed record of the species in 96 years, highlighting its extreme rarity in the wild. Notably, it is also the first documentation of the species near its type locality since its original discovery in 1927 (GBIF 2023).

RESULTS AND DISCUSSION

Strobilanthes parryorum C.E.C.Fisch. Bull. Misc. Inform. Kew 1928(4): 141–147. 1928; Karthikeyan et al., Fl. Pl. India 1: 55. 2009; Albertson & Venu, Fl. India 20: 699. 2023.

Type: India, Mizoram, Darzo, alt 1,250 m, 01.iii.1927, Parry A.D. 155, K000883146, K000883147.

Description: Erect subshrub, up to 2.5 m high. Stem quadrangular, sulcate, subterete when mature, pubescent or glabrescent, base woody, young shoots green in color, brown when old, lenticellate, profusely branched; leaf scar persistent at nodes, swollen above nodes, pubescent. Leaves petiolate, opposite, and decussate, anisophyllous, elliptic to ovate, 7–28 × 2–12 cm, base attenuate, decurrent into petiole, margin serrate, apex acuminate, cystoliths numerous, hispid on

the upper surface, lateral veins 6–12 pairs, impressed above, raised beneath; petiole 1–10 cm long, green, slightly bulging at the base, pubescent; inflorescence terminal or axillary, 8–29 cm long, cyme, branched at base, rachis densely covered with brown, and white glandular hairs; bracts sessile, spatulate to obtuse, 1–2.5 cm long, covered with brown, and white trichomes, pale green with pink at the apex, prominent ridge in the middle; bracteoles linear to lanceolate, 1–2 cm, apex obtuse to rounded, pale green, covered with trichomes, ridge in the middle; calyx bilabiate, five lobed, lobes linear to lanceolate, 1–2 cm long, subequal, two lower free, three upper fused in the middle, covered with brown, and white trichomes, white, pale green at the apex; corolla pale yellow, tubular, slightly swollen on one side, 4.5–5 cm long, slightly curved, tube widens from base, corolla mouth 1–1.5 cm wide, open, five lobed, subequal, 0.5–1 cm × 0.5–0.8 mm, glabrous, white; throat pale yellow, densely covered with trichomes on outer surface, and long white hairs on inner surface, brown striations present on inner surface; four stamens, didynamous, inserted, longer filament 7–8 mm, short filament 2.5–3.5 mm long, villous throughout; anther linear, 4–5 mm long, bithecate; style filiform, covered with trichomes,



Image 2. *Strobilanthes parryorum* growing wild at Ailawng, Mizoram, India. © Lucy Lalawmpuii.



Image 3. *Strobilanthes parryorum*: A—aerial parts | B—nodes | C&D—leaves | E—lenticels | F&G—bract and bracteoles | H—bract | I—bracteoles | J—inflorescence | K—flower | L—L.S. of flower | M&N—androecium | O—gynoecium | P&Q—capsule | R—jaculators | S—seed | T—pollen. © Renthlei Lalnunfeli.

3–3.6 cm long; stigma linear, simple, glabrous; ovary 4–4.5 mm long, apex pubescent, two locular with two ovules in each locule; capsule elliptic to clavate, 1.5–2 cm long, dark brown, glabrous; four seeds, suborbicular, 4–4.5 × 4–4.2 mm, hairy, dark brown, mucronate at the apex. Pollen in monads, radially symmetrical, isopolar, amb circular; P: 35–37 µm, E: 27 µm; P/E ratio: 1.16, subprolate; three colpi, colpus linear elliptic, compital membrane scabrate, endoaperture (os) elliptic and longitudinally elongated; pseudocolpi nine, linear, often coalescent at poles; sexine of 12 longitudinal ribs or bands with ladder-like reticulum, lumen perforate to micro-reticulate (Image 3A–T).

Wood & Scotland (2003) argued that, based on the available herbarium specimens, *S. parryorum* could be considered as subspecies of *S. denticulata* (Nees) T. Anderson (Anderson 1867). Notable differences from *S. denticulata* and other species were discernible, including larger bracts and the number of calyx lobes (3 in *S. denticulata*). In addition, their distribution does not coincide as *S. denticulata* is endemic to Meghalaya, and Nagaland.

Flowering and fruiting occur from October to January.

Ecology: *Strobilanthes parryorum* is associated with *Abelmoschus moschatus* Medik, *Allophylus cobbe* (L.) Raeusch., *S. glomerata* (Nees) T. Anderson, *S. capitata* (Nees) T. Anderson, *Coix lacryma-jobi* L., *Commelina* sp., *Impatiens tripetala* Roxb. ex DC., *Eupatorium cannabinum* L., *Hoya griffithii* Hook. f at the collection site.

Distribution: India — Mizoram, Darzo, Chhingchhip, Phawngpui, Serkawn, Ailawng (Figure 2); Bangladesh — Chittagong Hills.

Specimen examined: India, Mizoram, Ailawng, altitude 1,221 m, 16 November 2024, Lalawmpuii, LC 001/MCCH (Madras Christian College Herbarium).

Conservation status

There has been no evaluation to assess the conservation status of *S. parryorum*. In addition to Darzo, Parry had noted specimens from Chhingchhip, Phawngpui, and Serkawn (Wood & Scotland, 2003), all places adjacent to Darzo. Ailawng is the farthest place of the plant's distribution where fewer than 35 mature individuals were found. It is thus evident that the species is strictly endemic to the northeastern region of the Indian subcontinent. Considering the time span of the rediscovery and small extent of occurrence, based on the IUCN Red List, *S. parryorum* is best designated as 'Data Deficient' (DD).

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