

New distributional record of *Smilax china* Linnaeus (Smilacaceae) in India

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Abstract

The occurrence of *Smilax china* Linnaeus (Smilacaceae) recorded for the first time from India, particularly from the states of Assam and Meghalaya. A detail description with line drawing of the taxa is provided along with relevant information.

Key words: *Smilax china*, new record, India.

INTRODUCTION

The North Eastern region of India is considered to be one of the most genetic treasures house of bioresources in the world. The region is comprised of the 8 states, i.e., Assam, Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Tripura, Nagaland and Sikkim located in between 21°34'N and 29°50'N Latitude and 87°32'E and 92°57'E Longitudes. The state Assam is located at the central part of the North-East India and with an area of 78,438 km² representing 2.39% of Indian land mass situated in between latitude 24°18' and 28°18' N and longitude 89°42' and 96°30' E. The state Meghalaya lies between 25°05'N - 26°10'N Latitude and 89°47'E and 92°47'E Longitude.

Smilax Linnaeus is the core genus of Smilacaceae with ca. 350 species (Takhtajan 1997) or ca. 200 species and worldwide distribution, but most diverse in Asia and America (Chen *et al* 2000). Lawrence (1951) recognized about 300 species for *Smilax*. According to Mabberley (1987) the family comprises of 225 species under 10 genera. Out of 33 species in India, 17 are reported from Northeast India (Hooker 1886). However, the proper documentation of the genus in NE region is yet to be accomplished.

During the collection trips to Ri-bhoi district of Meghalaya and Sahabad (Sapanpur) Hailakandi district of Assam, the authors have collected certain herbarium materials belonging to members of *Smilax*. After critical studies and scrutiny of literature (Cheng & Koyama 2000) the specimen were identified as *Smilax china* Linnaeus.

MATERIALS AND METHODS

The species were collected from the field and maintaining at the NEDFi R & D Centre at Khetri, Kamrup, Assam. Voucher specimens were preserved in the form of mounted herbarium specimens as per standard field and herbarium techniques (Jain & Rao 1977). The specimens were carefully examined and they were identified as *Smilax* species on the basis of relevant literature (Cheng & Koyama 2000). The scrutiny of literature reveals that the above species have not been reported from Assam and Meghalaya earlier. The voucher specimens are deposited in the herbarium of NEDFi R & D Centre, Khetri, Kamrup, Assam and Botany Department, Gauhati University (GUBH).

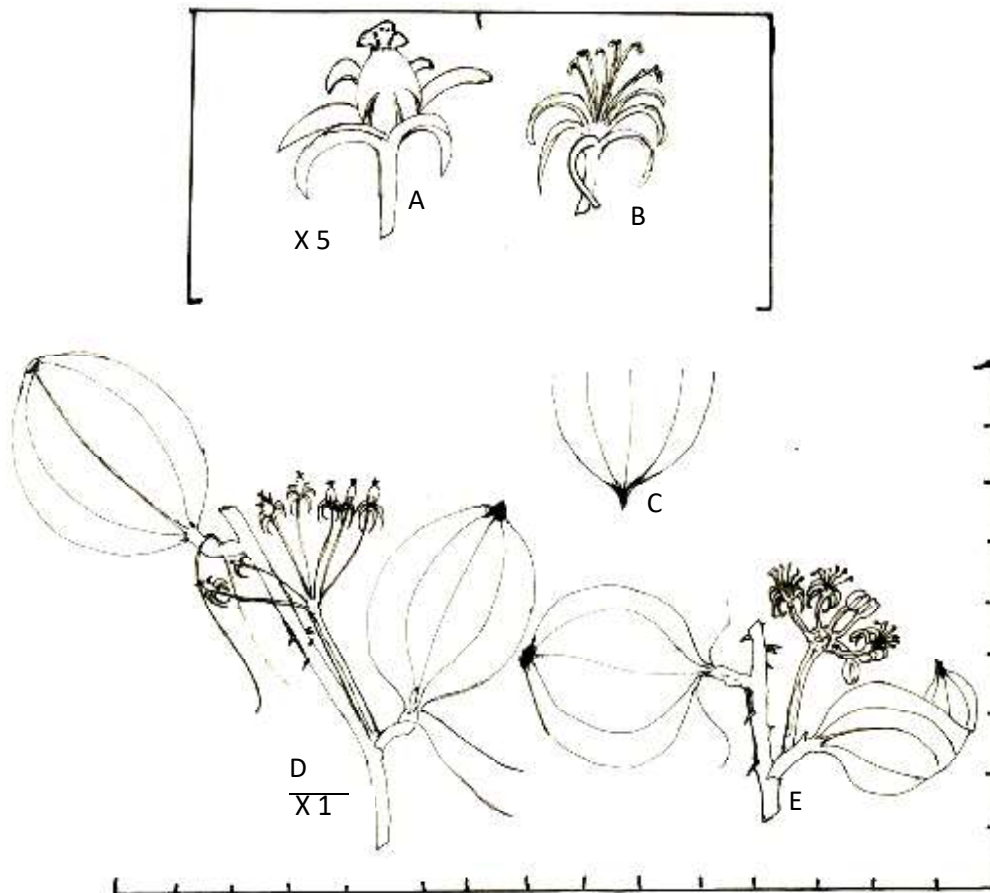


Fig. 1. *Smilax china*, A-Single female flower, B-Male flower, C-Apex of the leaf, D-Female flowering twig, E-Male flowering twig.

Smilax china Linnaeus, Sp. Pl. 2: 1029. 1753; Fl. China 24: 96 – 115. 2000. [Fig. 1]

Vernacular name: *Sukchini* (Karbi)

Rhizomatous vines. Stem branched, terete, 1 – 5, woody, sparsely prickly. Lamina elliptic to orbicular, 4 – 10 x 2.5 - 5 cm, acuminate. Petiole 0.5 – 1 cm, narrowly winged, abscission zone just above wing portion. Tendrils stout, long, 6 – 7 cm. Inflorescences are of simple umbel, borne in axils of young leaves; peduncle 10 – 15 mm. Umbels of both sexes 15 – 20 flowered; pedicels 1 cm, nearly equal in all flowers. *Male flowers:* tepals 3+ 3, yellowish green, 2 – 4 x 1 - 2.5 mm; stamens 3 - 4 mm; filaments filiform. *Female flowers:* tepals 3 + 3, staminodes 6, berries red when ripe, 0.6 – 10 mm in diameter.

Flowering: March – May; **Fruiting:** April – July.

Exsiccatae: Kodh-hati, Ri-Bhoi, Meghalaya, June 19, 2010, *S. Baruah* 538(♀), (N 25° 48' 846^{''}; E 92° 04' 894^{''}, EL 1004 m); Kodh-hati, Ri-Bhoi, Meghalaya, June 19, 2010, *S. Baruah* 478(♀) (N 25° 48' 846^{''}; E 92° 04' 894^{''}, EL 1004 m); Sapanpur, Sahabad, Hailakandi, Assam, September 25, 2008, *S. Baruah, P. Gogoi, M. Ahmed* 571(♂), (N 24° 54' 297^{''}; E 92° 45' 067^{''} EL 100m), Sapanpur, Sahabad, Hailakandi, Assam, September 25, 2008, *S. Baruah, P. Gogoi, M. Ahmed* 535 (♂), (N 24° 54' 297^{''}; E 92° 45' 067^{''}; EL 100m).

Distribution and Ecology: China, India (Assam, Meghalaya).

Ecology: It grows in hilly areas under moist evergreen and mixed forest between 100 – 1000 m altitudes above msl. It is also found in secondary and remnant forests.

Status: The rhizome of the species has been collected extensively for its use in pharmaceutical industries and for which the population of the species under natural condition is depleting. Moreover, the species has been located only from those two localities of Northeastern India.

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