to dark yellowish brown or reddish black to grayish brown, densely set with soft, subfloccose, black or dark gray, brown conical warts (-4 × 4 mm); margin appendiculate with grayish brown veil fragments ; context 10-15 mm thick, white or pinkish white, gray brown on exposure.

Tubes 15-20 mm deep, gray brown, brown black on exposure, adnate to minutely depressed, subdecurrent with age ; tube surface white or grayish white when young, gray brown at maturity, reddish orange and finally brown black on bruising ; pores 1-2 per mm, roundish.

Stipe 120-160 × 20-40 mm at base, equal or narrowing at apex with age ; surface black to reddish black at base and blackish brown at apex, longitudinally rugulose with apex poroid reticulate, softly floccose or squmulose ; flesh pinkish white, slowly turning brown black on exposure.

Spores reddish black in heaps, 9.5-11.5 × 7-8.5 μ m, subglobose, reticulate with a smooth adaxial patch, unchanging in KOH and Melzer's.

Basidia 16-17.5 × 12-13.5 μ m, 4-spored, hyaline ; pleurocystidia 27-62 × 11-12.5 μ m, numerous, fusiform to rarely lageniform with characteristic transverse bands of dark brown contents at the base and apex, darker in KOH.

Pileus cutis of loosely arranged hyphae with swollen apical cells ; warts and veil of short cylindrical, 4-5.5 μ m broad hyphal cells ; stipe cutis of cystidioid cells with brown contents.

Solitary to gregarious, on ground in Oak-forests, taste and odour not distinct.

Material examined : 203. on ground, Taradevi, Shimla, H. P., July 1975 ; 305, on ground, Dalhousie, Chamba, H.P., August 1978 ; 407 on ground, Narkanda Shimla, H.P., August 1980.

Singer (1945) described a specimen of *S. nigricans* Berk., growing on wood from Khasi hills and recorded warts on the pileus and spores measuring 9-11.5 × 8.5-10.3 μm. In the presence of warts and spore size, *S. mollis* Corner looks quite close to *S. nigricans* Berk. However, presence of bigger warts, characteristic pleurocystidia and habitat separate *S. mollis* from *S. nigricans*.

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REFERENCE

SINGER, R. The Boletinae of Florida with notes on extralimital species—II. *Florida* 2 : 223-303. 1945.

DISTRIBUTIONAL NOTES ON SIX ENDEMIC TAXA

A critical study based on herbarium sheets in D.D. and ASSAM brought up the following six species hitherto considered to be endemic to a particular area or region but which show extended range of the distribution.

1. Goniothalamus simonsii Hk. f. & Th. Fl. Ind. : 108. 1855. (Family-Annonaceae)

This species was based on the collection of Simon from Khasi hills and was believed to be endemic to Meghalaya (Hooker f., 1872 ; Brandis, 1907 ; Kanjilal *et al.* 1934 ; Mukherjee, 1963 and Joseph, 1982). Recent studies on the collections housed in ASSAM and Forest Research Institute, Dehradun revealed that this taxon was also collected

from Sikkim (*Anderson,* s.n.), North Lakhimpur of Assam (*D. M. Verma,* 46618) and Arunachal Pradesh (*K. C. Sahani,* 50 & 72).

2. Asteristigma macrocarpa Bedd. For. Man. Bot. : 236. 1873. (Family-Bixaceae)

It is an interesting instance of discontinuous distribution, as this taxon is supposed to be an endemic to South India (Beddome, 1873 ; Gamble, 1935 and Vajravelu, 1983). But the recent study on the collections housed at F.R.I., Dehradun revealed that it was collected from Myittynae and other parts of Burma (*Parkinson* 402 & 405 etc.).

3. Camellia caduca Clarke ex Brandis. Ind. Tr. : 61. 1907. (Family-Theaceae).

Clarke prepared the manuscript of this species from Khasi hills of Meghalaya which was published by Brandis (1907), who made a detailed study on this taxon and reported its occurrence in Sikkim and Bhutan also. Balakrishnan (1981) reported as an endemic species of Meghalaya. However, collections deposited at F.R.I., Dehradun revealed that it was collected from Aka hills by *Bor* (19394) ; from Nepal by *Proud* (34) ; Siang district of Arunachal Pradesh by *Rao et Joseph* (*s. n.*).

4. Impatiens laevigata Wall. ex Hk. f. in Proc. Linn. Soc. 4 : 146. 1860. (Family-Balsaminaceae)

Hooker f. (1860) reported this species from Khasi hills. Later, Balakrishnan (1981) kept it as an endemic taxon to Meghalaya. Subsequently, several collectors *viz. Mukerjee* 2970 ; *A. S. Rao* 43369 and *Chitkoko* 5765 collected this species from Manipur, Bhutan and Burma, respectively.

5. Ilex venulosa Hk. f. Fl. Brit. Ind. 1 : 602. 1875. (Family-Aquifoliaceae)

This species was based on the collection of De Silva from Khasi hills (*Hooker f.* 1875) ; Brandis (1907) reported this species from Khasi and Naga Hills. But Balakrishnan (1981) considers it as an endemic taxon to Meghalaya. The collections housed at F.R.I., Dehradun revealed that this taxon was collected by *Bor* from Sikkim (*Bor* 19889), Aka Hills (*Bor* 19494) and Nagaland (*Bor* 21682 & 2978) and by *Lace* from Simlkale, Bhamo district of Burma (*Lace* 5776).

6. Ilex embelioides Hk. f. Fl. Brit. Ind. 1 : 601. 1875. (Family-Aquifoliaceae)

Hooker f. (1875) recorded this species from Cherrapunji and Nongkhlaw forests of Khasi hills of Meghalaya. Later, Brandis (1907) and Kanjilal *et al.* (1934) also reported this species from Khasi hills only. Although. Balakrishnan (1981) also considers it as an endemic to Meghalaya ; Deb (1961) reported its occurrence in Manipur *Mukerjee* 2976 (specimen not seen). Hence, this species may be considered to be an endemic to N. E. India.

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REFERENCES

BALAKRISHNAN, N. P. Flora of Jowai, Vol. 1. Howrah. 1981.

BEDDOME, R. H. For. Man. Bot. : 236. 1873.

BRANDIS, D. Indian Trees. London. 1907.

DEB, D. B. Dicotyledonous plants of Manipur Territory. *Bull. bot. Surv. India* 3 (3 & 4) : 297. 1961.

GAMBLE, J. S. Flora of the Presidency of Madras, Vol. 1. London. 1935.

HOOKER, J. D. The Flora of British India, Vol. 1. London. 1872 ; 1875.

—— *Proc. Linn. Soc.* London, 4 : 146. 1860.

JOSEPH, J. Flora of Nonghpoh and Vicinity, East Khasi Hills, Meghalaya, Shillong. 1982.

KANJILAL U. N. et al. Flora of Assam, Vol. 1 (1 & 2). Shillong. 1934.

MUKERJEE, S. K. Enumeration of Indian Flowering Plants 6. *Bull. bot. Surv. India* 5(1) : 44. 1963.

VAJRAVELU, E. Rare threatened and endemic flowering plants of South India-1. *Plant Cons. Bull.* 4 : 17-19. 1983.