

NEW TAXA OF *PIPER* (PIPERACEAE) FROM SILENT VALLEY FOREST, KERALA

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During the course of a study on the *Piper* spp. of Silent Valley Forests (Paigat District, Kerala State) two hitherto unreported taxa of *Piper* were collected. These are described below:

*Piper silentvalleyensis* P. N. Ravindran, M. K. Nair & R. Asokan, Nair *sp. nov.*

*P. mullesua* Buch. Ham. ex D. Don affinis tamen differt spicibus fructiferis elongatis ascendentibusque, ad 2.5-5.5 cm longis; floribus bisexualibus; foliis subcoriaceis.

Allied to *P. mullesua* Buch.-Ham. ex D. Don (Syn. *P. brachystachyum* Wall.) but differs from it in the elongated ascending fruiting spikes, 2.5-5.5 cms long, flowers bisexual; leaves sub-coriaceous.

HOLOTYPE PNR : 186 Collected from Silent Valley Forests, Kerala, India on 8-4-1981 and deposited in the Herbarium, National Research Centre for Spices, Calicut, India and BSI Herbarium, (Madras Herbarium) at Coimbatore.

Slender extensively branched climber; stem about 0.5-1 cm thick, swollen at the nodes; branches terete, entirely glabrous; stipules small, laterally fused to form a lanceate structure of 0.3-0.5 cm long, hirsute and deciduous; leaves alternate, ellipto-lanceate, somewhat coriaceous, lamina 5-8.5 x 2.0-3.5 cms., glabrous on both sides, base acute, more or less asymmetric, tip caudate acuminate, often bent, lamina prominently ribbed, of 2 pairs of

lateral ribs the first arises near the petiole and the other about 0.5 cm above, ribs more pronounced on the dorsal side, petiole very short, 0.3-0.5 cms long and quite glabrous; spikes 2.5-5.5 cms long, ascending; peduncle very short, 0.2-0.3 cms long, glabrous, furrowed when dry never longer than petiole; bracts orbicular, petate, stalked,  $\pm 0.07$  cms in diameter; flowers bisexual, stamens two, very short; anthers 2-lobed, reniform and attached transversely at the tip of the filament, dehiscing by longitudinal cleft; ovary globoid, astylocarpellous, stigma minute and 3-lobed; fruit a small drupe, mature one  $\pm 0.1$  cm across and slightly longer lengthwise, obovate in shape with striations, pungent.

Rare, difficult to distinguish from *Piper mullesua*, unless in fruiting.

*Piper nigrum* L. var. *hirtellosum* R. Asokan & P. N. Ravindran *var. nov.*

*P. nigro* L. affinis tamen different bracteis hirtellis spicarum.

Allied to *Piper nigrum* L. but distinctly differs from it in having hirtellous bracts. in both young and mature sp. kes.

HOLOTYPE PNR & RAN : 386 Collected from Silent Valley Forests, Kerala, India on 24-4-1986, and deposited in the herbarium, National Research Centre for Spices, Calicut, India and in the BSI Herbarium (Madras Herbarium) Coimbatore.

Robust shrubby climber, stems terete, entirely glabrous with profuse foliage; leaves

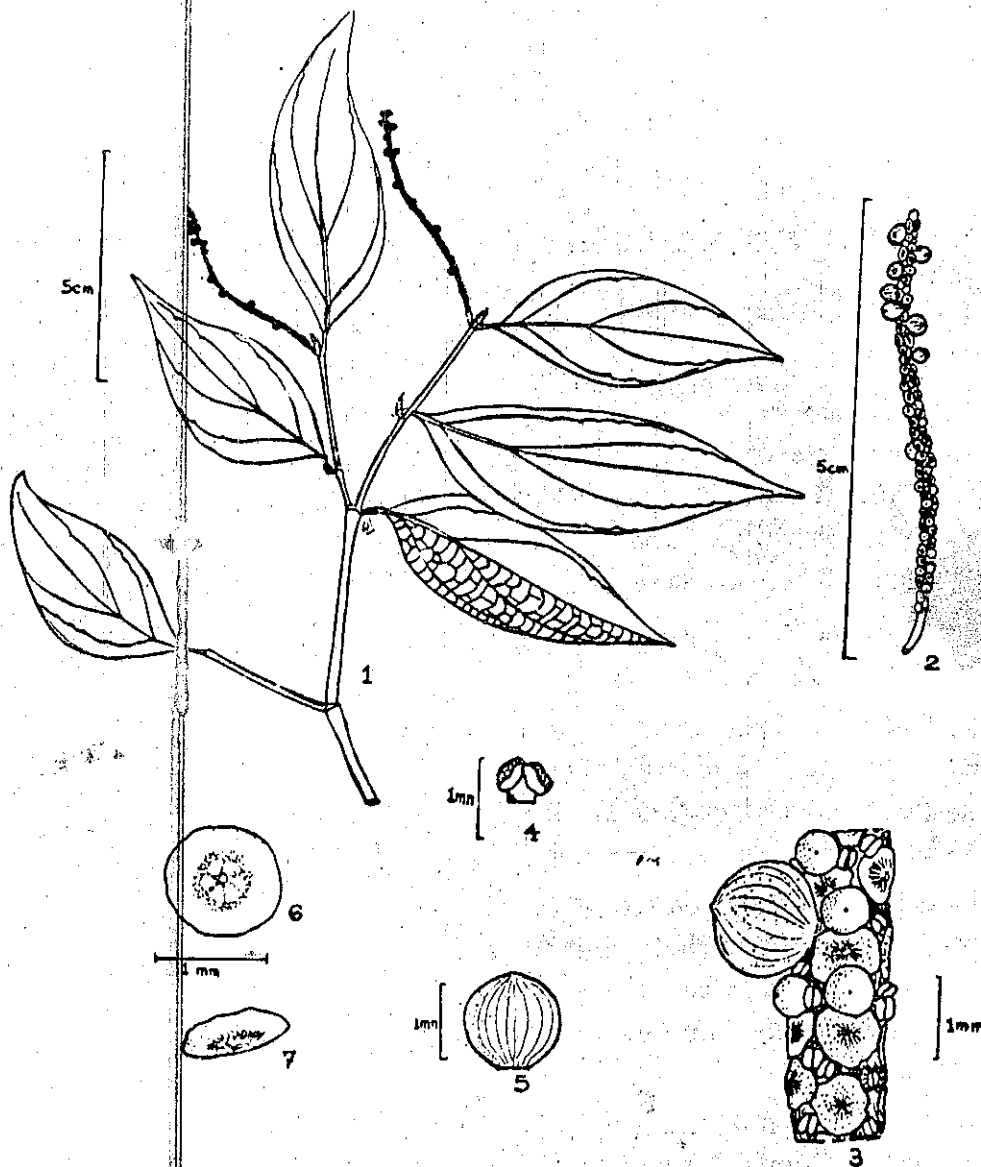


Fig. 1. *Piper silentvalleyensis* P.N. Ravindran, M.K. Nair & R. Asokan Nair  
 1. A fruiting branch 2. An entire spike 3. A portion of the spike-enlarged  
 4. Stamen (dehiscing). 5. Fruit 6. Bract-surface view 7. Bract - lateral view.

alternate, broadly ovate-elliptic, coriaceous and glabrous on both sides; lamina 7.0-18.0 cm long, 3.0-10.0 cm broad, leaf tip acuminate, base almost unequal and oblique, obtuse or cordate sometimes, lamina prominently ribbed, commonly 3 or often 2 pairs of lateral ribs, more conspicuous on the dorsal side, the basal pairs almost opposite and the anterior-most one generally alternate; petiole 1.2-2.5 cm long, glabrous and furrowed; stipules lanceate about 1.5 cm long, glabrous and deciduous; fruiting

spikes long, drooping, 5.0-17.0 cm long, peduncle glabrous except for one or two stains of hairs; bracts adnate to rachis, upper perianth-like, with a decurrent base, hirtellous on the outer side; flowers more or less distantly distributed, having a single spherical ovary, about  $\pm 0.2$  cm long, astylocarpellous with 3-4 papillate stigmatic lobes; fruit a drupe, spherical, mature one about 0.7 cm in diameter, pungent, turns red when ripe; seed single, globose with floury endosperm.

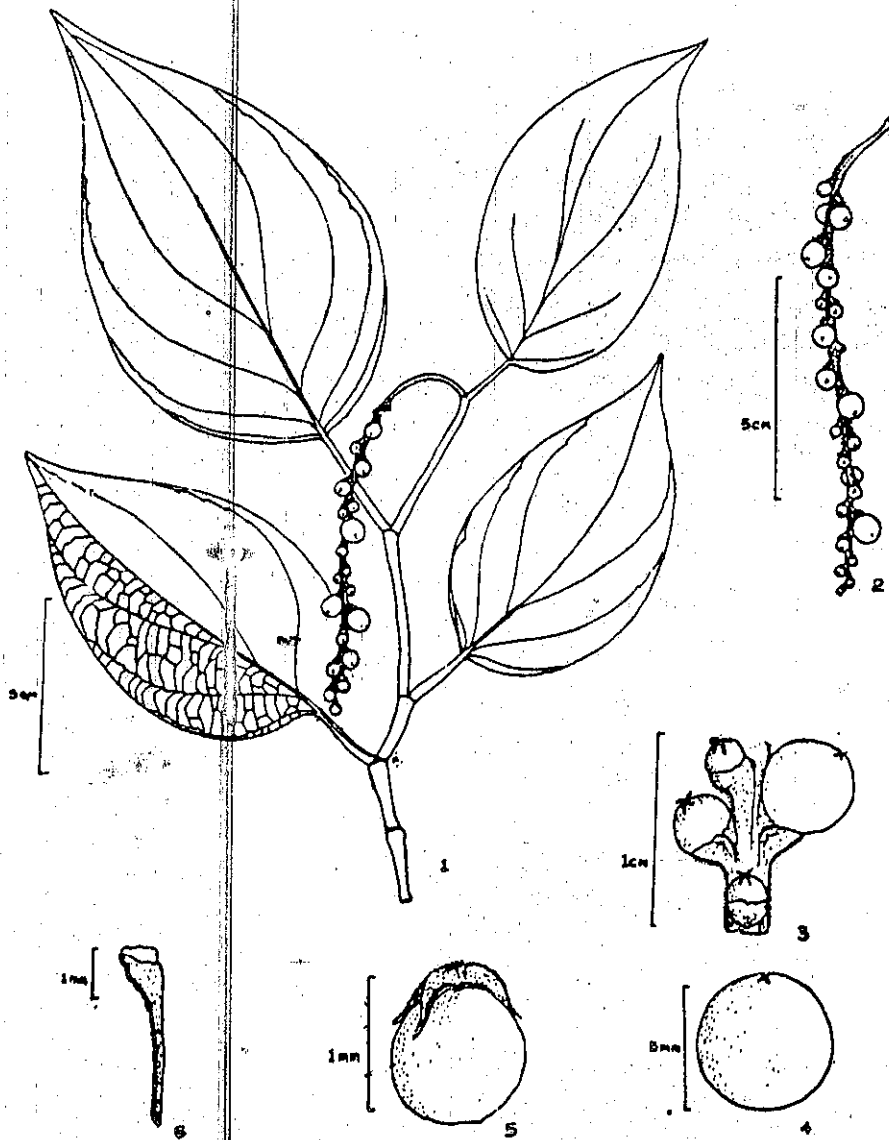


Fig. 2. *Piper nigrum* L. var. *hirtellosum* R. Asokan & P.N. Ravindran  
1. A fruiting branch 2. Mature female spike 3. A portion of the  
spike enlarged 4. Mature fruit 5. Pistil 6. Bract-side view

male plant unknown.

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collections of W. Woodrow from Karachi in Sind. Naseer, Y. (1975) described this species and gave its illustration in the Flora of Pakistan. He also cited many collections from Baluchistan, Karachi and Hyderabad districts of Pakistan. Both these districts are the parts of Indus Delta from where *Asparagus deltae* Blatt. was described. The geographical distribution of *O. baccatus* and report of *A. deltae* from the same region also supports the confirmity of specimens of *A. deltae* as *O. baccatus*. Hence *A. deltae* Blatt. is a taxonomic synonym of *O. baccatus* Delile (Resedaceae).

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