

lesions coalesced and even sclerotia were formed here and there on the leaf surface.

When floated on tapwater, the rice leaf pieces remained green and fresh even for 4–5 days. Since the spread of infection was very fast that covered the entire leaf surface within 48 hr, the leaf pieces could safely be floated on tapwater and no kinetin solution was required. As there was no difference in the disease development on leaves collected at different intervals of the day, the leaves could be collected and inoculated at any time of the day. In each petriplate, 4–6 leaf pieces could be conveniently floated and inoculated.

This technique gave good results in testing the viability of different inocula stored at room temperature. The reaction of some of the known tolerant cultivars (figure 2) corroborated their field reaction. Adopting this technique, the factors related to leaf infection of sheath blight disease are in progress in our laboratory. The advantage of the technique is that the progress of infection can be observed very closely. It is envisaged that this technique may also be useful in forecasting the disease, chemical control studies and also screening the germplasm or any other material against *R. solani*.

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#### A NEW SPECIES OF *ILEX* L, (AQUIFOLIACEAE) FROM KARNATAKA

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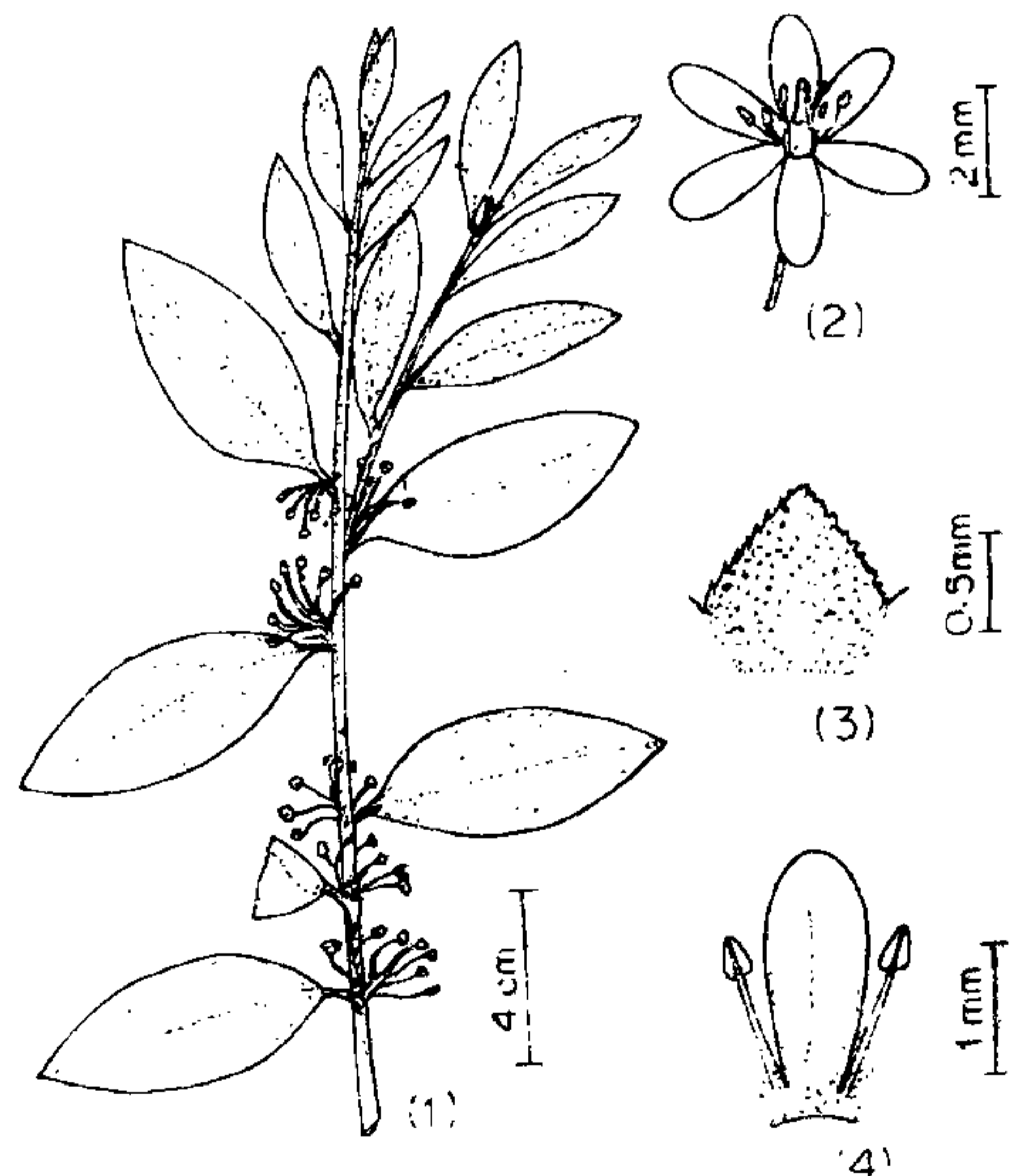
DURING systematic survey work on the flora of Coorg District, Karnataka, an interesting species of *Ilex* L. was collected from the evergreen shola forests of Tadiandamol hill range. Studies carried out at the herbaria of MH, CAL and BSI revealed that the species is a new one. A detailed description and illustrations are provided for this new species.

#### *Ilex tadiandamolense* sp nov

*Ilex malabarica* Bedd, affinis sed marginibus laborum calycis dentatis, lobis corollae integris oblongis, apice foliarum acuto emarginate et ovario glabro differt.

Allied to *Ilex malabarica* Bedd, but differs in having calyx lobes toothed along margins; entire, oblong corolla lobes; leaves with acute or emarginate apex and glabrous ovary.

Trees to 10 m tall; branches terete, minutely pubescent when young, quite glabrous when mature. Leaves 3.5–9 × 1.2–2.8 cm, elliptic-lanceolate, markedly glabrous on both surfaces, acute or emarginate at apex, attenuate at base, midrib impressed above, nerves 5 to 7, obscure above, faint beneath, entire along margins; petiole 3 to 8 mm long, channelled, puberulous. Flowers 5 to 6 mm across, bisexual in dense axillary paniced cymes; pedicels 2 to 5 mm long. Calyx lobes 6, each up to 1 mm long, triangular-ovate, acute or blunt at apex, toothed along margins. Corolla lobes 6, connate below; lobes 1 to 2 mm long, oblong, margins wavy. Stamens 6, each 1.5 to 2 mm long, alternating with corolla lobes; filaments glabrous; anthers dorsifixed. Ovary ovoid, 1.5 to 2 mm across, glabrous; style



Figures 1–4. *Ilex tadiandamolense* sp nov  
1. Flowering twig; 2. Flower spreadout; 3. Calyx lobe; 4. Corolla lobe with stamens.

short; stigma obscurely 6-lobed; ovules 6, solitary and pendulous in each loculus (Figures 1 to 4).

*Holotype* K. R. Keshava Murthy & Party 3711A and *Isotypes* 3711B-C, collected in flowers from evergreen shola forests of Tadiandamol, on 9th March, 1983 at an altitude of about 2000 m are deposited at the Herbarium of the Regional Research Centre, Bangalore (RRCBI).

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## NEW RECORD OF TWO FLEA BEETLES INFESTING BLACK PEPPER *PIPER NIGRUM* L LEAVES

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THE black pepper plant is susceptible to about 20 species of insects<sup>1</sup>. Among the different pests of pepper, the pollu beetle *Longitarsus nigripennis* Mots (Chrysomelidae: Coleoptera) is the most important and destructive, causing damage to leaf buds, tender leaves, mature leaves, tender shoots, spikes and berries<sup>2</sup>.

During a survey to ascertain the intensity of damage caused by *L. nigripennis*, two other chrysomelid beetles were found to feed on the leaves of black pepper in certain pepper-growing tracts of Kerala. They were identified as *Lanka* sp and *Hermacophaga* sp by the Commonwealth Institute of Entomology, London.

### *Lanka* sp

This is a brown flea beetle measuring 1.9 mm in length and 1.5 mm in width. The adult beetle has the hind femur thick and adapted for jumping. This beetle was first observed in Lakkidi in Wynad District, Kerala. The beetles prefer tender leaves and congregate on the leaves and feed on the bulk tissues resulting in the formation of many holes on the lamina. The beetles also scrape the green matter from the under-surface of leaves leaving a thin layer of epidermis which breaks off after some time resulting in number of holes on the lamina.

### *Hermacophaga* sp

This beetle is smaller than *Lanka* sp and measures 1.6 mm in length and 1.2 mm in width and is shining black in colour. The hind femur is thickened in *Hermacophaga* sp also. This species was present in Trivandrum and Kottayam Districts of Kerala. Unlike *Lanka* sp these beetles prefer mature leaves. They remain on the underside of the leaf in heavily shaded gardens and feed on the surface tissues as irregular patches.

The damage to the pepper berries by the beetles is yet to be ascertained.

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## INFLUENCE OF ORGANIC VOLATILE COMPOUNDS ON THE GROWTH OF CERTAIN KERATINOPHILIC FUNGI

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EXISTENCE of organic volatile compounds and their effect upon the soil microorganisms was first demonstrated by Cholodny<sup>1</sup>. Some workers have reported<sup>1</sup> the growth stimulation in soil-inhabiting fungi and bacteria by gaseous products emanated from higher plants. Recent years have seen the demonstration of the inhibitory effect of volatiles liberated by soil fungi on the growth of other microbes growing in its vicinity<sup>2, 3</sup>. These organic volatile substances are also known to play an