seeds[14]. Blue light has been suggested to amplify the fresh synthesis of RNA[11] and soluble proteins[17, 18] The inhibition by cycloheximide suggests that mostly pre-formed mRNAs are translated on the polybribosomes to yield the active enzyme. It has been shown that light-mediated increase in the amount of polyribosomes consequently promotes nitrate reductase activity[19].

Exogenous supply of hormonal substances in the incubation medium of embryos in the dark affected enzyme activity (figure 1). GA_3 enhanced nitrate reductase activity to the same effectiveness as on 5 min irradiation with blue light while benzyladenine was more effective. Ethrel slightly enhanced the activity while IAA had no effect. Cytokinins *per se* enhance the activity of nitrate reductase in *Agrostemma* embryos[20] caused by *de novo* synthesis[21] and markedly enhance the efficiency of nitrate reductase induction by substrate in many plant species[12]. In tobacco leaves, GA_3 and a combination of GA_3 and kinetin enhanced the activity of nitrate reductase[22] and replaced the light requirement for its induction[13].

The question as to whether light effect on nitrate reductase activity is mediated via changes in hormone concentrations or balances or via membrane(s) changes or functions affecting responsivity to hormones, is still open.

4 April 1986

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BIPOLARIS SPICIFERA AND *EXSEROHILUM ROSTRATUM* CAUSING LEAF SPOTS OF *EUCALYPTUS TERETICORNIS* — NEW RECORD FROM INDIA

C. MOHANAN and J. K. SHARMA
Division of Forest Pathology, Kerala Forest Research Institute, Peechi 680 653, India.

FOLIAR infection of 3-month-old *Eucalyptus tereticornis* Sm seedlings was observed in forest nurseries at Onkar, Mysore, Karnataka during April/May 1984. Infection occurred usually at the margin and tips of mature leaves as minute greyish brown specks. The spots coalesced to form large necrotic areas. Two fungi, *Bipolaris spicifera* (Bain) Subram, anamorph of *Cochliobolus spcifer* Nelson (IMI 288286) and *Exserohilum rostratum* (Drechsler) Leonard and Suggs, anamorph of *Setosphaeria rostrata* Leonard (IMI 288285, 288287, 288288,

288290) were consistently isolated. The identification of the isolates was confirmed by the Commonwealth Mycological Institute, Kew, England.

Bipolaris spicifera (Bain) Subram

Colony on potato dextrose agar (PDA) effuse, greyish to olivaceous black. Conidiophores flexuous, densely geniculate up to 220 μm long. Conidia oblong—ellipsoidal to cylindrical, golden brown to brown, smooth-walled, 2–3 (mostly 3) distoseptate, 17.5–28.5×6.6–10.5 μm, end cells small, hilum inconspicuous, germination bipolar.

Exserohilum rostratum (Drechsler) Leonard

Colony on PDA effuse dark greyish to olivaceous brown. Conidiophores solitary, straight or bent, golden brown, geniculate towards the tip 35–120×6–7.5 μm. Conidia fusiform—cylindrical to obclavate, with a markedly protruberant hilum at the base, pale yellowish brown to dark brown, often with strongly rostrate tip, 5–14 distoseptate, 49–187 μm long and 11–15.5 μm wide at the broadest part (figure 1).

Pathogenicity of the isolates was confirmed by spraying conidial suspensions of *B. spicifera* and *E. rostratum* separately on detached leaves of *F tereticornis* floated on 5 ppm benzimidazole solution and reisolating the respective fungus from the lesions developed.

Various nursery diseases of eucalypts have been reported recently from Kerala[1–5]. *B. spicifera* being reported on *Eucalyptus* for the first time, is a cosmopolitan species recorded from over 77 different plant species, including 51 genera of grass[6, 7]. It has been reported as causing cotton blight, leaf blight of tobacco[8], seedling diseases of sugar cane[9] and paddy leaf spot[10]. Leonard and Suggs[11] erected the form genus *Exserohilum* for species formerly included in *Drechslera sensu lato* or *Bipolaris* Shoem where the conidia are characterized by a distinctly protruberant hilum. Recently, a taxonomic revision of *Exserohilum* has been made by Leonard[12] and Sivanesan[13]. *E. rostratum* is a new record from India. *Bipolaris rostrata*, a species closely related to *E. rostratum*, has been recorded on paddy causing leaf spots, and on wheat foot rot[14–16].

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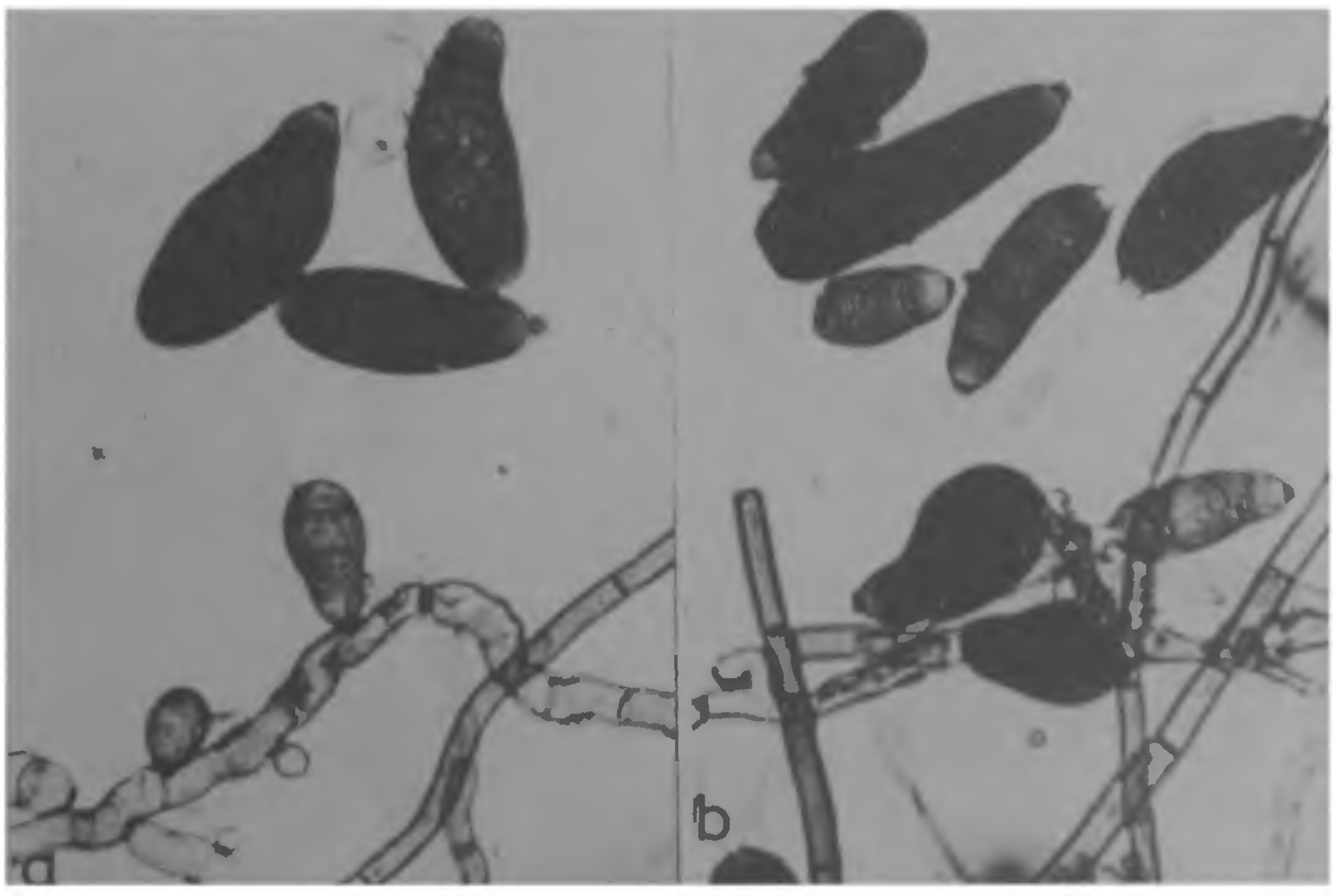

Figure 1 a–b. Conidiophore and conidia of *Exserohilum rostratum*. Note the markedly protruberant hilum at the base of the conidia (**a**) and germinating conidia (**b**).

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RECORD OF THE POLLINATING WEEVIL *ELAEIDOBIUS KAMERUNICUS* (FAUST) (COLEOPTERA : CURCULIONIDAE) IN OIL PALM PLANTATIONS OF KERALA

K. N. PONNAMMA, K. DHILEEPAN and V. G. SASIDHARAN
Central Plantation Crops Research Institute, Research Centre, Palode 695 562, India.

THE red oil palm *Elaeis guineensis* Jacq a native of West Africa, was introduced to several of the South East Asian countries such as Malaysia, Indonesia, India etc. In these countries, the inadequacy of pollination has been a major problem. Besides the low rate of fruit setting, sometimes lack of adequate pollination also results in bunch failure. Hence efforts are being made to evaluate the role of different species of insects visiting the male and female inflorescences of oil palm and to identify the ones which are beneficial pollinators. Recently certain curculionid weevils were observed in large numbers on the inflorescences in the oil palm plantations at this institute. These weevils were identified as *Elaeidobius* (= *Prosoestus*) *kamerunicus* (Faust) (Coleoptera: Curculionidae) belonging to the tribe Derelomini of the subfamily Erirrhininae (figure 1). A survey revealed the occurrence of the same in the oil palm plantations of Chithara, Kerala.

E. kamerunicus, one of the most important pollinating agents for oil palm in Cameroon, has been successfully introduced and established in oil palm plantations in Malaysia by the middle of 1981. Over the first seven months of 1982, bunch weight was 10% above the mean for the previous five years in Kluang and 35% above in Sabah. Total yield was 20% higher in Peninsular Malaysia and 53% higher in Sabah.

The weevils chew anther filaments of opened male flowers. When they crawl or move about on the spikelets the pollen grains adhere to their body and during their subsequent visits to the female inflorescences the pollen grains are deposited on the stigma of female flowers. When the weevils crawl over the male inflorescences a large amount of pollen grains are disbursed which are carried by wind.

Figure 1. *Elaeidobius kamerunicus* (× 300).