

## SHORT SCIENTIFIC NOTES

### Record of New Alternate Host Plants of the Slug Caterpillar, *Contheyla rotunda* Hampson (Eucleidae : Lepidoptera)

The slug caterpillar, *Contheyla rotunda* Hampson is one among the minor pests of the coconut palm. But devastation by these caterpillars to extensive areas of coconut cultivation was also reported. The recorded alternate host plants of the pest include banana, wild arrowroot plants, teabushes<sup>1</sup> and grasses<sup>2</sup>. The areca palm is a new record to the list of alternate hosts of these slug caterpillars. The caterpillars attack the areca palms of the species *Areca catechu* L. and *Areca triandra* Roxb. The green stem, leaflets, leaf petiole, spathes and inflorescence provide food for the caterpillars. The cocoa plant *Theobroma cacao* L. var. *Criollo* is another new record to the alternate host plants of *Contheyla rotunda*. Caterpillars feed on both tender and older leaves. The green manure plant *Pueraria javanica* grown as a cover crop in arecanut garden provides another suitable host for the caterpillars. Areca palm, cocoa and *Pueraria* thus serve favourable feeding and breeding sites for the caterpillars during epidemic outbreaks.

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1. Nirula, K. K., Antony, J., Sahasranaman, K. N. and Menon, K. P. V., *Indian Coconut J.*, 1954, 7 (4), 143.
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### Occurrence of *Haplothrips ganglbaueri* Schmutz (Phlaeothripidae : Thysanoptera) as a Serious Pest of Rice Earheads in Kerala

Adults and nymphs of *Haplothrips ganglbaueri* Schmutz were recorded as serious pests of developing rice panicles in Trichur and Palghat Districts during the second crop season of the year 1971-72 (August-September to January-February) on IR-8 and Jaya varieties.

The incidence of the pest was relatively more serious in the first fortnight of December and the observations taken from infested fields in this peak period of activity of the pest have indicated numeri-

cal preponderance of nymphs in the population, estimated at 90%. Nymphs and adults were found to cluster on flower-heads, lacerating and feeding on lemma, palea and ovarian tissues. The degree of spikelet damage induced by feeding activity of the pest ranged from 80 to 100%. The feeding damage on the lemma and palea caused development of irregularly oval and diffused brownish patches.

Adults and nymphs when released in polythene cages at 40 to 60 per panicle of potted IR-8 plants, the characteristic symptoms of spikelet damage could be reproduced in the course of 6 days under laboratory conditions.

Adults are dark brownish-grey and slender with a mean body length of 1.064 mm, with well pronounced 7-segmented antennae.

During the period when peak infestation by the pest was experienced, the weather was humid with occasional drizzles and the sky was overcast for most parts of the day. The amount of solar energy received was abnormally low, the mean sunshine hours per day for the first fortnight of December 1971 being 4.466 only, as compared with the figures for the corresponding periods of the previous years which were 10.33, 7.28, 8.80 and 6.81 for 1970, 1969, 1968 and 1967 respectively.

The pest outbreaks were successfully controlled by low volume application of dimethoate, formothion, or phosphamidon applied at 400 g active ingredient per hectare.

The only other record of *H. ganglbaueri* as a pest of rice earheads is from Malaya by Corbett and Pagden (1941) as quoted by Ahmad Yunus (1964).

The authors are grateful to Dr. T. N. Ananthakrishnan, Entomology Research Unit, Loyola College, Madras, for identification of the pest.

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1. Ahmad Yunus quoting Corbett, G. H., and Pagden, H. T., "Insect pests of rice in Malaysia," *Proc. Symp. at the International Rice Research Institute, September 1964*, Johns Hopkins Press, Baltimore, 1941, p. 632.

### First Record of *Alternaria longissima* from India

In January 1968, during a general survey of fungi at Muzaffarpur, the author obtained an uncommon species of *Alternaria* from some peculiar leaf spots of *Lycopersicum esculentum* L. The disease first appeared as minute grey spots in basal leaves which later on spread into almost circular spots of 5 to 8 mm diameter with grey centre and brown margin. As the infection progressed, the spots enlarged and coalesced causing large blighted patches. The lesions spread to the petiole resulting in drying and ultimate abscission of the leaves.

Colonies on PDA olivaceous grey to green and slightly zonate. Hyphae hyaline, branched, septate, 3.5–5.2  $\mu$  wide. Conidiophores pale, smooth, simple or branched, septate, 52.5–133  $\mu$  long, 5.2–7  $\mu$  wide, slightly swollen at the apex. Swollen end bears golden-yellow conidia of very variable shape and size, 3–38 celled with straight or oblique septa, obclavate, subcylindric or irregular. The average size of the different types of conidia is detailed below.

3 celled ( $98 \times 17 \mu$ ); 4 celled ( $49 \times 14 \mu$ ); 5 celled ( $105 \times 10.5 \mu$ ); 6 celled ( $77 \times 28 \mu$ ); 7 celled ( $63 \times 21 \mu$ ); 8 celled ( $145.4 \times 28 \mu$ ); 19 celled ( $213.5 \times 35 \mu$ ); 24 celled ( $122.5 \times 24.5 \mu$ ); 27 celled ( $175 \times 52.4 \mu$ ); 38 celled ( $385 \times 38.5 \mu$ ).

On comparison, the characters of the fungus agreed with *A. longissima* recently reported by Deighton and Macgarvie<sup>1</sup> from England and U.S.A. on fallen pollen grains of zea and on old leaf tissues of a wide range of host plants.

The culture has been deposited in the Commonwealth Mycological Institute, Kew, England, IMI No. 34 (131071).

Sincere thanks are due to Dr. M. B. Ellis of C.M.I., Kew, England, for confirming the identification of the present isolate.

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Department of Botany,  
University of Bihar,  
Muzaffarpur, December 17, 1970.

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### A New Record of *Helminthosporium* Leaf Spot on *Crinum asiaticum* Linn.

A leaf spot disease was observed on *Crinum asiaticum*, an ornamental plant in the Tamil Nadu Agricultural University Campus, Coimbatore-3. Initially small, reddish brown specks were observed on infected leaves which developed into round to

oval spots measuring 2 mm in diameter with a reddish brown margin and grey centre. With further advancement of the disease, typical blight symptoms were produced due to coalescence of individual spots.

The causal organism was brought into pure culture from naturally infected leaves of *C. asiaticum*. The morphological characteristics of the fungus appeared to be similar to that of *Helminthosporium tetramera* Mc Kinney.

Pathogenicity of the fungus was established on *C. asiaticum* by artificial inoculation. The symptoms produced by artificial inoculation were similar to symptoms observed naturally on the host. Apart from *C. asiaticum* the fungus infected maize plants (15 days old) when inoculated artificially but not *Canna indica*. *Helminthosporium tetramera* has been reported on several host plants such as sugarcane<sup>1</sup>, sorghum<sup>2</sup>, maize<sup>3</sup>, *Crotalaria juncea*<sup>4</sup>, etc.

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1. Anonymous, *Annual Report of the Sugarcane Breeding Institute, Coimbatore, for 1959–60*, p. 164.
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### New Record of Canker Fungi of Apple from India

Apple plantation in the marginally situated areas in Himachal Pradesh has created several new disease problems, among which incidence of different types of cankers caused by one fungus or more than one has been predominant. During one of the surveys of Rajgarh area of Himachal Pradesh conducted in September, 1969, two cankers different in their visual symptoms were encountered as most frequent. A detailed study of the visual symptoms, isolation, identification of the organism (s) and the pathogenicity tests revealed the two cankers and the organism associated as new to India. The identification was confirmed by the IMI in both the cases. A brief description of these fungi is given below:

*Diplodia mutila* (Fries) Mont. (*Botryosphaeria stevensii* Shoemaker):

Appearance of die-back symptoms on small twigs and branches involving 1–2 year old growth was



characteristic. The cankered bark was rough rarely showing papery consistency in reddish brown colour. the surface did not slough off and produced a wound.

Pycnidia dark, round to oval, dome-shaped and scattered on the attacked bark, thickly stromatic, erumpent, ostiolated, single or loculate; conidiophores small, hyaline; conidia oval to elongate, hyaline, nonseptate and brownish, rarely one septate and measured  $19.8-23.1 \times 11.5-13.2 \mu$ . Mycelium septate, well branched changing from hyaline to brownish tinge on age and developed sclerotia; black round pycnidia developed in culture bearing elongated spores with glassy walls, single septation in spores in culture developed after 60 days and measured  $19.8-26.4 \times 11.5-13.2 \mu$  (IMI Herb. No. 144071).

#### *Haplosporella* sp.

All limbs, lateral shoots, branches and twigs were attacked by the fungus. The invaded portion was rough wrinkled, black in colour resembling to fire blight and there was no sloughing off and papery bark formation. The invasion on small twigs induced die-back, while the attack on main limbs resulted into their death altogether as the spread was rapid.

The fungus formed multichambered raised stroma, studded in linear chain in close proximity to each other on infected twigs and branches. Pycnidia ostiolate, dark loculate and obtusely papillate; conidiophores hyaline sometimes branched; conidia ovoid to oblong, one celled, brown and measured  $16.5-19.8 \times 6.6-9.9 \mu$ . Mycelium, hyaline taking yellowish to brown tinge in older culture, septate, well branched, developed pycnidia under artificial light on age and produced spores similar in shape and size to those formed on host (IMI Herb. No. 144070). The present fungus differs in its spore size from *Haplosporella mali* (West.) Ptr. et Syd. which was recorded on *Pirus malus* by Petrak (1953).

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Himachal Pradesh University, R. K. AGARWALA.  
Solan Campus, August 22, 1972.

1. Petrak, Von F., *Sydowia*, 1953, 7, 36.
2. Shoemaker, R. A., *Can. J. Bot.*, 1964, 42 (9), 1297.
3. Stevens, N. E., *Mycologia*, 1933, 25, 536.

#### A Note on *Paathramaya* and *Piricauda obclavata*

The monotypic genus *Paathramaya* was proposed by Subramanian (1956) with *P. sundara* as type for a phaeostilbaceous hyphomycete in which the upper fan-shaped part of the synnema consists of free parallel conidiophores. The conidiophores are

macro- and mononematous, unbranched, long, cylindric,  $70-185 \mu$  long,  $7-10.5 \mu$  broad, with one terminal and 10-25 lateral protuberances in the anterior region which represent their fertile part. Each protuberance is cup-shaped, constricted at base, not cut off by septum, monoblastic, spherical and collapses after the release of the conidium becoming calyciform, thin walled,  $7-10.5 \times 5-7 \mu$ , concolorous with the conidiophore and have been referred to as 'conidiogenous vesicles' by Ellis (1971). The conidiophore proliferates through the conidiogenous vesicle either terminally or laterally. Smooth, thick walled, dark, elongate oval, solitary dry conidia (blastospores) measuring  $18-30 \times 14-21 \mu$  are cut off acrogenously from the conidiogenous vesicle. The collection under study (V.V.C.B.L. No. 783) specifically agrees with the type. However, it shows an interesting character, i.e., proliferation of the conidiophore through the conidiogenous vesicle which has not been reported so far.

*Piricauda* Bubak is characterised by semimacro and mononematous conidiophores (slightly thicker than the hyphae) which get anchored and anastomose into loops producing phaeodictyospores from monotretic, integrated, determinate, terminal and intercalary cicatrised conidiogenous cells (Ellis, 1971). Raghuveer and Dev Rao (1964) described *Piricauda obclavata* collected during their studies on the Hyphomycetes of Hyderabad as new, which for reasons unknown was not effectively published. Therefore, it is validated with the following diagnosis.

*Piricauda obclavata* P. R. & D. R. ex Dev Rao.

Coloniae carbonaceae, irregulares. Hyphis fusce brunneis, repentis, septatis, attenuatis ad septa,  $3-7.2 \mu$  latis, septa  $7.2-10.8 \mu$  distantibus. Conidiophori simplices productae cellulae hyphis singulari,  $3-7 \mu$  longi,  $1.5-3.6 \mu$  lati. Conidia producta acrogena, dictyospora,  $32-47 \mu$  longa,  $14-22 \mu$  lata, carbonacea vel fusce brunnea. Conidia e cellulis  $13-35$  compositi.

Typus lectus in ligno emortuo de silva Narsapur, a Dev Rao die mensis novembris anni 1962, V.V.C.B.L. subnumero 290.

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3030 Heverlee, Belgium, August 28, 1972.

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