production of *R. solani* toxin, neither of them was detected in mycelial amino acids of *R. solani* isolates, but for R4 in which traces of phenylalanine were detected in the cell wall amino acid fraction. Interestingly, in the infected rice tissue also neither of these amino acids could be detected despite their presence in the healthy tissue. The ability of *R. solani* isolates from rice to convert phenylalanine and tyrosine to metabolites such as meta-hydroxyphenyl acetic acid (HPAA), ortho-HPAA and para-HPAA respectively, was shown by Ramalingam[2] using labelled precursors in replacement culture studies.

In the present investigation, the five *R. solani* isolates from rice exhibited greater differences than similarities in their mycelial amino acid composition (qualitative and quantitative), but did not reveal any specific correlation with their relative virulence rating, contrary to the reported[1] greater production of amino acids by the virulent *R. solani* isolate from ground nut.

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A NEW ORCHID FROM COORG DISTRICT, KARNATAKA

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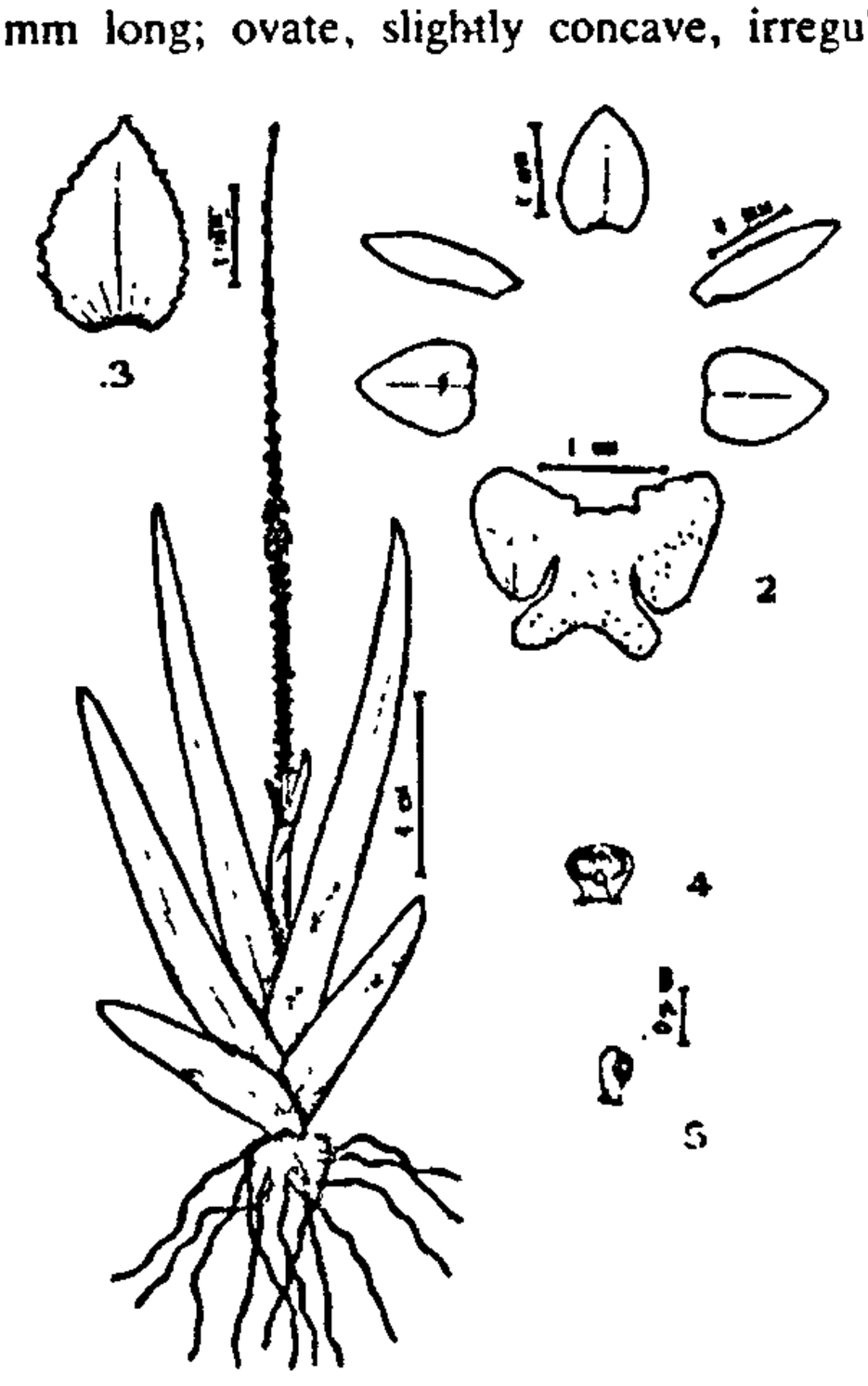
CRITICAL studies carried out on the flora of Coorg District, Karnataka revealed a new species of *Oberonia* Lindl., (Orchidaceae) which is described.

Oberonia rangannaiana sp. nov.

Oberonia brunoniana Wt. affinis sed flores manifeste pedicellatis bracteis longioribus irregulariter et lobis labii minute dentatis et papillatis differt.

Allied to *Oberonia brunoniana* Wt. but differs in having distinctly pedicellate flowers, longer and irregularly dentate bracts and lip with minutely toothed and papillate lobes.

Epiphytes. Leaves 5– 14 × 0.7 –1.1 cm, linear-oblong, slightly falcate, acute at apex, yellowish-green. Flowers 2 to 2.5 mm long, in 14 to 22 cm long spikes; pedicels 0.5 to 0.75 mm long, bracts 2 to 2.5 mm long; ovate, slightly concave, irregularly



Figures 1 to 5: *Oberonia rangannaiana* sp. nov. **1.** Plant with inflorescence; **2.** sepal, petals and lip spread out; **3.** bract; **4.** operculum; **5.** column.

dentate along margins. Sepals 1 to 1.25 mm long, subacute; laterals slightly broader than dorsal sepal. Petals 1.25 to 1.5 mm long, linear, minutely ciliate along margins. Lip 1.5 to 2 mm across, suborbicular in outline, 3-lobed; lobes minutely toothed along margins, papillate; midlobe bilobulate; lobules suboblong, rounded at apex; lateral lobes suborbicular. Column short. Pollinia 4, in 2 pairs, caudicle absent. Capsule 3 to 4 mm long, ovoid; fruiting pedicel distinct (figures 1 to 5).

Holotype K. R. Keshava Murthy & Party 4233A and *Isotypes* 4233 B–D, collected from the forests along Bhagamandala to Mercara on 8 August, 1983, at an altitude of 1200 m, in flowers and fruits are deposited at the Herbarium of the Regional Research Centre, Bangalore (RRCBI).

This species is named after late Sri T. K. Ranganna, father of the first author.

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INHIBITORY EFFECT OF LIGHT ON AFLATOXIN B_1 FORMATION IN COPRA

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SEVERAL studies for finding resistant varieties for the accumulation of aflatoxins[1,2], stopping the growth of the fungus and subsequent toxin production by certain chemicals[3,4] have not yielded the desired results[1,5,6]. Barring a single report[7], there is little information on the preventive nature of light on aflatoxin B_1 formation. Therefore, an attempt has been made to study the inhibitory effect of light on toxin production in copra, as this substrate is considered to be one of the food products that has a high risk for aflatoxin formation[8].

Five sets each of 100 g of sterilized copra samples inoculated each with 10 ml of inoculum (containing 2×10^3 spores per ml) of *Aspergillus flavus* NRRL 13130 A (this strain produced only aflatoxin B_1 on copra) were placed in sterilized petri dishes with a thickness of 1 cm and incubated for four weeks in sunlight, diffuse light (samples were placed inside a room, close to a window where no direct sunlight falls) and electric light (samples were placed under two bulbs of 100 watts at a distance of 30 cm). Samples incubated in total darkness served as controls. Weekly estimations were done for toxin contents immediately after incubation by employing standard methods[9,10].

Table 1 *Effect of light on aflatoxin B_1 formation in copra*

Incubation period (weeks)	Aflatoxin levels* (μg/kg) detected in copra samples after incubation				
	Type of light	Total darkness (control)	Diffuse light	Electric light	Sunlight
	Quantity** of light (lux)	—	1000	500	2400
1		192.30	60.00	150.00	—
2		300.00	75.50	166.66	—
3		190.07	164.50	180.00	—
4		500.00	112.50	63.50	—

* Mean of 5 replicates; ** Mean quantity of light measured at various intervals during incubation period.

In the control sets of copra (samples incubated in total darkness, aflatoxin B_1 was produced in the range of 190.07 to 500 μg/kg in the four weeks of incubation period, However, only 60 to 164.5 and 63.5 to 180 μg/kg of toxin was observed in the samples stored in diffuse and electric lights respectively. None of the samples incubated in sunlight showed the presence of aflatoxin B_1 during the entire incubation period (table 1) which clearly indicates that sunlight inhibited the toxin formation totally.

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