

TABLE I

	M <sup>1</sup>			P <sup>4</sup>		
	a.p.	tr.	Index	a.p.	tr.	Index
Ind. Mus. D. 177 (Pilgrim <sup>7</sup> )	11.5 mm	10.6 mm	92.1	8.5 mm	9.9 mm	116.5
Bandal specimens (Gupta <sup>4</sup> )	(A) 16.75 m	15.75 mm	92.28	12.00 mm	14.00 mm	117.50
	(B) ..	..	..	13.00 mm	15.00 mm	115.40

(iii) outer (buccal) cusp more deeply cleft; and  
(iv) single inner (lingual) cusp well pronounced.

Keeping in view these observations and the relative abundance of *Dicoryphochoerus* in the Chinjis<sup>1,8</sup>, it seems quite genuine to assign the two specimens to the genus *Dicoryphochoerus*. However, because the specimens are fragmentary, identification at the specific level does not seem justified.

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## CERTAIN VIEWPOINTS ON THE RENAMING OF CYANOPHYTA

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The recent renaming of blue-green algae as Cyanobacteria<sup>1</sup> and the recommendations to place the nomenclature under the International Code of Nomenclature of Bacteria<sup>2</sup> unfortunately do not appear quite acceptable. Primarily the non-consideration of the most vital characteristics of the blue-greens such as oxygen evolving photosystem, pigment composition and above all their wide range of morphological diversity leaves one reticent to accept the above recommendations. Moreover, an arduous task has been set, to evolve (axenic) culture types, probably the beginning of a never ending battle. Though the dates and deadlines announced to have culture types have elapsed the practicability of the problem appears intricate. Strong and valid objections to Stanier

*et al.* recommendations by Lewin<sup>3</sup>, Bourrelly<sup>4</sup> and Golubic<sup>5</sup> have necessitated a complete review of the situation.

Evolving culture types to all representative genera of blue-green algae does not appear practically so easy. Blue-greens are capable of refraining to expose all their morphological characteristics of 'their habitat' when put into the artificially prepared culture medium. One instance is the difficulty that has been experienced to bring into culture *Trichodesmium*, a marine planktonic form that forms extensive blooms<sup>6</sup>. The behaviour of helical members of blue-greens under laboratory conditions is yet another. Nevertheless, even if with great difficulties one brings the blue-greens into culture the stability of the culture is not definite. It is likely that a culture may become questionable at a later date. In fact a coccoid blue-green culture obtained by Stanier himself at different times is known to have changed itself, over the years<sup>7</sup>. Since cloning is involved with purification of an organism, fortuitous isolation of a mutant might cause enough of confusion and variable results might be interpreted with the same organism. Another important problem will be to bring into culture some of the thermophilic and cryo-blue-greens. Here one has to necessarily use media that ought to be different from that used for other common forms. This could lead on to a collection of blue-greens in a varying set-up.

Blue-green algae are unique in their possession of oxygen evolving photosystem which is a great step in the evolution of the plant kingdom. This is one major point in which they differ from the bacteria. The phycobiliproteins of red and blue-green algae have been much studied than those of Cryptophytes. The similarities of the three groups (in this feature) are greater than differences. Basic similarities are common to all groups including their amino acid sequence from the NH<sub>2</sub> terminus. Glazer and Apell<sup>8</sup> have concluded that three algal groups have a closer phylogenetic relationship than had previously been assumed. Nutritionally, most blue-green algae are quite fastidious in exhibiting 'photoautotrophic' mode of nutrition with few exceptions where valid 'heterotrophy' has been documented. Such exceptions are probably met with in other classes of algae as well. The range of morphological structures found among blue-green algae show a close parallelism encountered so clearly



in other classes of algae as well. Such ranges of morphological features are not paralleled by bacteria. Besides, some of the vegetative reproductive features and their mode of formation are definitely advanced than in bacteria. In their ecological habitats, Cyanophyta share many common features as those of other classes of algae.

Another relevant and significant point is the founding of the Prochlorophyta<sup>9</sup>. The position of *Prochloron* a former *Synechocystis didemni* (Cyanophyta) that relates the blue-greens and greens clearly establishes the right position of Cyanophyta under algae.

It is reiterated that the objections against the renaming both ecological and practical are to be seriously viewed. A set of new rules and recommendations proposed by Gulubic<sup>3</sup> to retain the blue-greens as algae look justifiable.

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## OCCURRENCE OF UDABATTI DISEASE ON SORGHUM IN KARNATAKA

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DURING the kharif season of 1980, a crop of sorghum (*Sorghum vulgare* Pers.) variety CSH-1 was grown in the Main Research Station, Hebbal, Bangalore. A few earheads of sorghum showed symptoms typical to those of *Ephelis* infection on several graminaceous crops. All the florets in the whole of the attacked

earhead were greyish, chaffy and found pressed and glued to the main rachis. Microscopic examination of the fungus revealed the conidia to be acicular, hyaline, aseptate, straight or slightly curved and measured  $11.4-22.8 \times 1.4-1.9 \mu$  with an average length of  $17.0 \mu$  which was close to the spore size of *Ephelis oryzae* Syd. on *Oryza sativa* Linn. reported by Mohanty<sup>4</sup>.

The genus *Balansia* Speg. and its conidial form *Ephelis* Fr. are of widespread occurrence in India and particularly in South India on several grasses and cereals. Venkatakrishnaiya<sup>6</sup> reported the first occurrence of *Ephelis* on two grasses namely, *Eragrostis tenuifolia* Hochst. and *Isachne elegans* Dalz. and later listed two more millets *Setaria italica* Beauv. and *Echinochloa crus-galli* Beauv. as its hosts. Govindu and Thirumalachar<sup>1</sup> reported an *Ephelis* species parasitising the spikelets of *Sorghum halepense* (Linn.) Pers. and have recorded the same on *Pennisetum hohenackeri* Hochst<sup>2</sup>. Misra and Pall<sup>3</sup> have recorded *E. oryzae* on *Eragrostis tremula* Hochst., *E. ciliaris* R.Br. var. *clarkei*, *Echinochloa colona* Link., *Pennisetum alopecuroides* Steud., *Paspalum distichum* Linn., *P. scrobiculatum* Linn. and *Setaria italica* Beauv. Mohanty<sup>4</sup> recorded *Ephelis oryzae* on two grass hosts, *Microstegium nudum* A. Camus. and *Leptochloa chinensis* Nees. Reddy and Chennamma<sup>5</sup> reported the occurrence of *E. oryzae* on *Pennisetum typhoides* (Burm.) Stapf. and Hubb. variety HB-3.

Based on the morphology of spore and its dimensions, *Sorghum vulgare* is considered as a new host, for *Ephelis oryzae*. The specimen is deposited in the mycological herbarium of the Department of Plant Pathology, University of Agricultural Sciences, Bangalore (MYSP # 2014).

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