

- Verticipollenites Bharad.  
Lunatisporites (Leschik) Bharad.  
Striatites Pant.  
Vittatina Luber.  
Welwitschiapites Bolc.  
Faunipollenites Bharad.  
Striatopodocarpoites (Soritsch and Sed.)  
Bharad.  
Pilasporites Balm and Hen.  
Plicatipollenites Lele.  
Microbaculispora. gen. nov.  
Potonisporites Bharad.  
Lahirites Bharad.

Some of the important genera are illustrated in Plates I and II.

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### ABNORMAL GROWTH OF LOWER INCISORS IN *RATTUS RATTUS*

THE cause of abnormal growth of incisors in rodents is not properly known. Young (1950)<sup>1</sup> thinks that it is due to the rootless nature of the incisors causing continual growth. Bagh (1964)<sup>2</sup> reported a case of abnormal growth of lower incisors in *Rattus rattus*. Bagh and Bhaduri (1964)<sup>3</sup> attribute such growth to genetic mutation. Vanchinathan (1964)<sup>4</sup> considers that fluorine imbalance may be a cause. Mitchell (1964)<sup>5</sup> opines that it is due to non-functional jaw muscles (Fig. 1).

Recently I have been able to collect two living specimens of *Rattus rattus* showing the abnormal growth of lower incisors from Suri, Birbhum, W. Bengal, with the help of two students. I may mention that I collected one specimen of *R. rattus* showing the same abnormality from the same place in 1964. The following observations were made:

#### OBSERVATION (FIG. 2)

No. of specimens observed—2	Sex—male		
	Size	Body	Tail
Specimen No. 1	3.8"	3.1"	1.8"
do. 2	5.7"	4.4"	1.5"

It was observed that the animals refused to take hard food (unboiled rice, gram, peas), but preferred the soft ones (bread, boiled rice, etc.). They felt uneasy while taking food and it was observed that they tried in vain to break those abnormal teeth.



FIG. 1. Showing the abnormal growth of both the lower incisors in *Rattus rattus*. Note the curved, well-developed teeth.



FIG. 2. Showing the abnormal growth of lower incisors in younger specimens.

Unfortunately the specimen No. 1 survived for 6 days and No. 2 for 7 days only in spite of the best care taken.

The abnormal growth of the lower incisors in those specimens may be due to deleterious mutation. If fluorine imbalance is the cause then other deformity or pathogenic condition should also be there. It may be noted that only the lower incisors were affected. The jaw muscles were active and thus it ruled out the possibility that this phenomenon is associated with ineffective jaw muscles.

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MARINE FUNGI

MARINE lignicolous fungi have been collected in the coastal waters of some thirty-six countries. However, records and observations on marine fungi have been largely from Australia, France, Germany, Great Britain and the U.S.A. (Jones, 1968). Little is known of marine fungi off the coasts of India, Aden and Singapore. Becker and Kohlmeyer (1958) recorded the presence of soft rotting fungi on small fishing craft in India. The only species named was *Halosphaeria quadricornuta*. Almieda (1963) in a preliminary investigation of micro-organisms on timber in Indian

coastal waters listed a number of bacteria and a few fungi: (*Aspergillus* sp., *Cladosporium* sp. and *Halosphaeria quadricornuta*). Three further marine fungi have been described from India, *Paraliomyces letifereus* (Kohlmeyer, 1959), *Corallospora pulchella* and *Clavariopsis bulbosa* (Kohlmeyer, Schmidt and Nair, 1967).

The materials and methods used are similar to those described by Jones (1963), copper wire being replaced with 'Courlene' nylon rope. Testing sites were situated at the I.N. Physical Laboratory, Cochin, India; Naval Chemical and Metallurgical Laboratory, Naval Dockyard, Bombay, India; Material Laboratory, Engineering Department, H.M. Dockyard, Singapore and at Slave Island, Aden Harbour, Aden.

The results are summarised in Table I.

In comparison to other studies of this kind (Jones, 1963; Meyers and Reynolds, 1960) the number of fungi recorded was low at all the stations tested. This may be due to the very rapid deterioration of the wood by the animal borers and bacteria. A successional pattern of fungi as reported by Jones (1963) was not observed. *L. floridana* and *H. quadricornuta* would seem to be quite common. These two

TABLE I

Infestation of beech (B) and Scots pine (SP) test block at Aden, Cochin, Bombay and Singapore

FUNGI	6 weeks				12 weeks				18 weeks			30	36	42	Total		
	Aden		Cochin		Bombay		Singapore		Cochin		Bombay	Singapore	Cochin	Cochin		Cochin	
	B	SP	B	SP	B	SP	B	SP	B	SP	B	SP	B	SP		B	SP
<b>FUNGI IMPERFECTI</b>																	
1. <i>Humicola alopallonella</i> Meyers & Moore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
2. <i>Humicola</i> sp.	+	-	+	+	-	-	+	-	+	+	+	+	+	+	+	+	22
3. <i>Cirrenalia macrocephala</i> (Kohlm.) Meyers & Moore	-	-	-	-	-	-	-	-	+	-	-	-	+	+	+	+	5
<b>ASCOMYCETES</b>																	
4. <i>Lulworthia floridana</i> Meyers	+	-	+	+	+	+	+	+	+	-	-	..	+	+	+	-	14
5. <i>L. purpurea</i> (Wilson) Johnson	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	4
6. <i>Halosphaeria quadricornuta</i> Cribb & Cribb	-	-	-	-	+	-	-	-	+	+	-	-	+	+	+	+	15
Soft Rot attack	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	..
<i>Teredo</i> sp. attack	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
<i>Limnoria</i> sp. attack	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
<i>Martesia striata</i>	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	10

B=Beech, SP=Scots Pine, \*1= Test block completely destroyed by borer attack.