

Table 1 Biochemical properties of *Aeromonas hydrophila* isolated from *Labeo rohita* (Ham)

Test	Results	
Ammonia liberation	+	
Arginine hydrolysis	+	
Catalase test	+	
Gelatin liquefaction*	+	
Casein hydrolysis	+	
H ₂ S test	+	
Indole formation	+	
Methyl red test	-	
Voges-Proskauer test	+	
<i>Haemolysis</i>		
Rabbit blood	+	
Human blood	-	
Fish blood	+	
<i>Carbohydrate utilization test</i>		
	Acid	Gas
(i) Glucose	+	+
(ii) Sucrose	+	+
(iii) Fructose	+	+
(iv) Galactose	+	+
(v) Mannitol	+	+
(vi) Lactose	-	-
(vii) Sorbitol	-	-

* Was found to be maximum at 37°C.

The proteolytic activity of *A. hydrophila hydrophila* measured using gelatin liquefaction zone indicated that at 37°C the liquefaction was profuse when compared to 24° and 42°C. The liquefaction was less at 24°C and was noticed only after 18 hr. At 42°C also the liquefaction was rather slow although detectable liquefaction could be seen after 12 hr of inoculation of bacteria. The proteolytic activity is seen around the bacterial colony, which means that the exocellular products of the bacteria have protease activity. Wakabayashi *et al*⁹ also recorded similar observations while studying the pathogenic activities of *A. hydrophila hydrophila* and other *Aeromonas* sp isolated from different fishes. This appeared to be significant since Kou¹⁰ had correlated the protease degrading gelatin with the virulence of *Aeromonas* isolates.

Haemolysis of rabbit and fish blood by this organism was noticed *in vitro* in petri dishes with nutrient agar supplemented with 5% blood (table 1). The neat culture filtrate was also found to haemolyse the blood cells *in vitro*. This test confirmed the haemolysin activity of *A. hydrophila hydrophila* which could have contributed to the profuse bleeding through the anus in severely infected fish.

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CONOSTROMA QUERCICOLA SP NOV FROM INDIA

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WHILE studying Coelomycetous fungi in South India, an interesting stromatic pycnidial fungus was collected on fallen twigs of *Quercus alba*. On examination the specimen revealed the presence of a species of *Conostroma* Moesz, a monotypic genus. *C. didyimum* (Fautrey and Roum) Moesz is the type and only species of the genus. The present fungus differs from *C. didyimum* in several aspects. Therefore it is described as a new species.

Conostroma quercicola sp nov Muthumary

Conidiomata stromatic, dark brown, sub-peridermal, 800–1000 μm in diam., multilocular, situated around a central column of sterile tissue composed of thin-walled, pale brown, textura angularis with somewhat larger cells at the centre; locular wall tissue and basal stroma of thin-walled pseudoparenchyma (figure 1). Dehiscence by irregular rupturing of the central column of tissue to release the conidia. Conidiogenous cells line the entire locular cavity, simple, branched at the base, hyaline, smooth, cylindrical, tapering towards the tip, blasto-sympodial, occasionally with 2–3-annellations, 15–22 ($\bar{x} = 20$) \times 2.5–3.5 ($\bar{x} = 3.0$) μm (figure 2). Conidia fusiform, medianly 1-septate, hyaline, orange coloured in mass, smooth, thin-walled, guttulate, attenuated towards the truncate base and pointed apex, 17.5–20.5 ($\bar{x} = 18$) \times 2.5–3.0 ($\bar{x} = 2.8$) μm (figure 3).

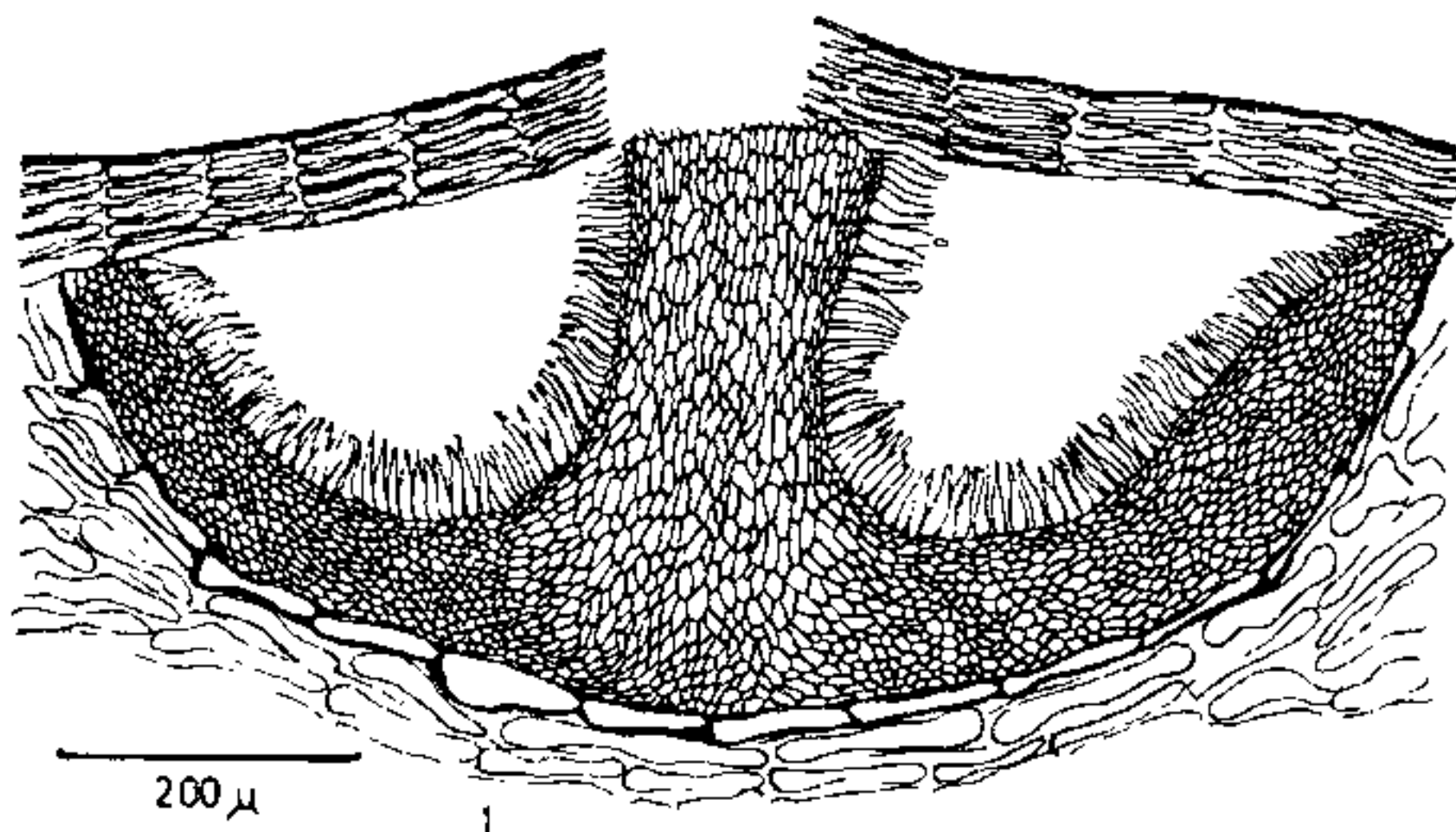
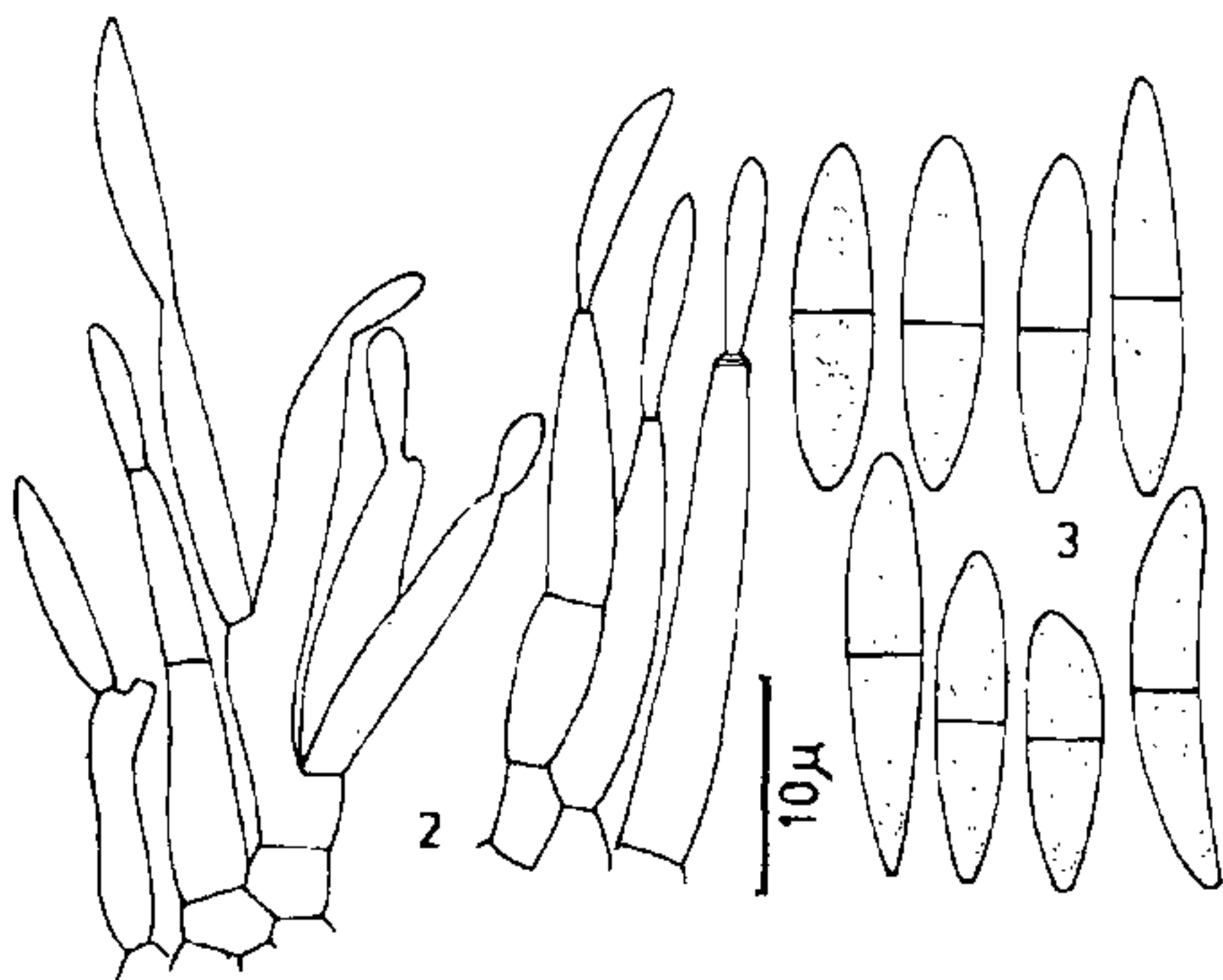


Figure 1. Vertical section of conidioma.



Figures 2, 3. Conidiogenous cells showing developing conidia; 3. Mature conidia.

Conostroma quercicola sp nov Muthumary

Conidiomata stromatica, fusce brunnea, sub-peridermalia, 800–1000 μm diameter. In sectione verticali, stroma cum pariete crasso, multiloculatum, dispositum circa columnam centralem texturae sterilis consistentis e textura angulari pallide brunnea cum pariete tenui et cum cellulis centralibus aliquantenus maioribus; texturae parietis loculi et stroma basale formata pseudoparenchymate cum pariete tenui. Dehiscencia per rupturam irregularem columnae centralis texturae liberans conidie. Cellulae conidiogenosae limitates loculum, simplices, ramosae ad basim, hyalinae, leves, cylindratae, prae-acutae ad cacumen, blastosympodiales, non-numquam cum 2–3-annellationibus, 15–22 ($\bar{x} = 20$) \times 2.5–3.5 ($\bar{x} = 3.0$) μm . Conidia fusiformia, medie 1-euseptata, hyalina, levia, cum pariete tenui, guttulata, attenuata ad basim truncatam et ad apicem ocutum, 17.5–20.5 ($\bar{x} = 18$) \times 2.5–3.0 ($\bar{x} = 2.8$) μm .

Habitat: Collectum e ramulo mortua *Quercus alba* in Bryant Park, Kodaikanal, Tamilnadu, 10-12-1983 a J. Muthumary, Herb. MUBL. 2914.

The conidia are much larger in *C. quercicola* measuring 17.5–20.5 \times 2.5–3.0 μm and are one-septate whereas¹ in *C. didymum* they are 5–7 \times 1.5 μm and single-celled. Because of these differences in the morphology, the Indian collection is described as a new species.

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