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THE FORAMINIFERAL SPECIES *ACTINOSIPHON* FROM THE SUBSURFACE SEDIMENTS OF KERALA

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Abstract

The occurrence of *Actinosiphon* sp. a larger foraminifera, obtained from the subcrop section at Ambalapuzha, at a depth of 454-494 m is reported. This find further confirms the presence of Eocene sediments in the onshore Kerala sedimentary basin.

Introduction

The presence of Eocene sediments in the subsurface section of the Kerala onshore sedimentary basin at Ambalapuzha has been reported (Raha *et al*, 1985). The onshore basin is deepest (600 m) around Ambalapuzha (Fig. 1). The Tertiary sequence of Kerala onshore basin essentially comprises of three units, viz., a calcareous unit sandwiched by two lithological units having ferrugenous characteristics. The presence of larger foraminifera, obtained from a depth range of 454-494 metres, suggests marine influences in the sedimentary unit underlying the calcareous unit.

Systematic Description

Family Orbitoididae, Schwager, 1876.

Type Species: *Actinosiphon semmesi* Vaughan, 1929.

Actinosiphon sp., Fig. 2.

Description: The test is lenticular with bilocular embryonic chamber completely surrounded by a ring of about 8 to 9 periembryonic apparatus and well developed lateral chambers. The embryonic apparatus consists of a larger subspherical initial chamber followed by a smaller chamber.

Remarks: According to Vaughan (1929) *Actinosiphon* has a strong resemblance to *Pseudoorbitoides*, but differs from the latter by its single layer of equatorial chambers and the stoloniferous passages through the walls of chambers; further, there are no radial markings as in the *Pseudoorbitoides*. Loeblich and Tappan (1964), are of the opinion that although *Lepidoorbitoides* and *Actinosiphon* resemble the Lepidocyclines in form and structure, they cannot be related to them. *Actinosiphon* has been assigned to the *Orbitoides* and the *Actinosiphon* is the final representative of the dominantly Upper Cretaceous family.

Age: Early Eocene.

Discusion

The discovery of the genus *Actinosiphon* from the subsurface of the Kerala sedimentary basin is of considerable interest in view of the fact that no well authenticated record of this genus has so far been reported from this region. A similar one has been reported from the Ranikot Beds of the Punjab Salt Range, N.W. India

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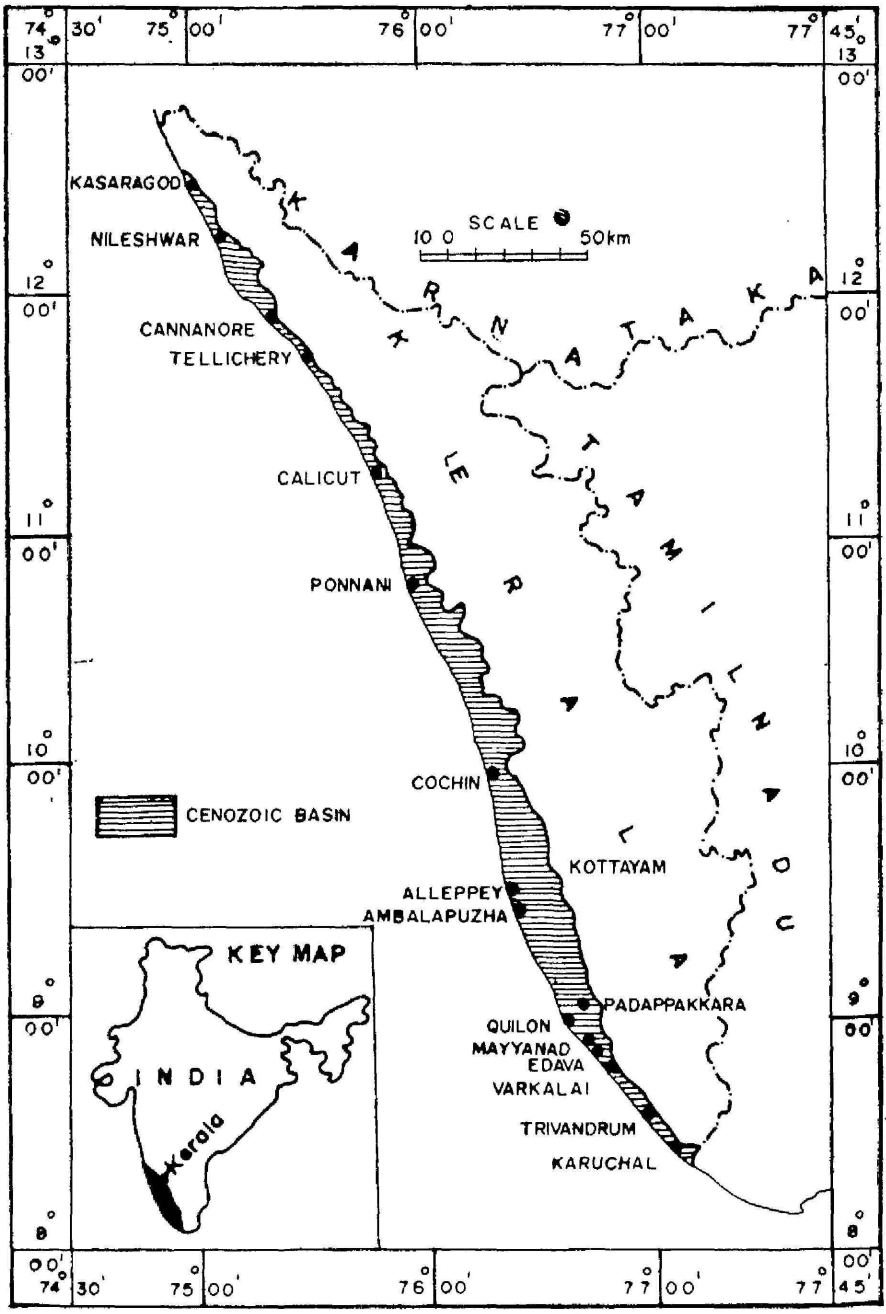

Figure 1. Cenozoic Basin of Kerala.

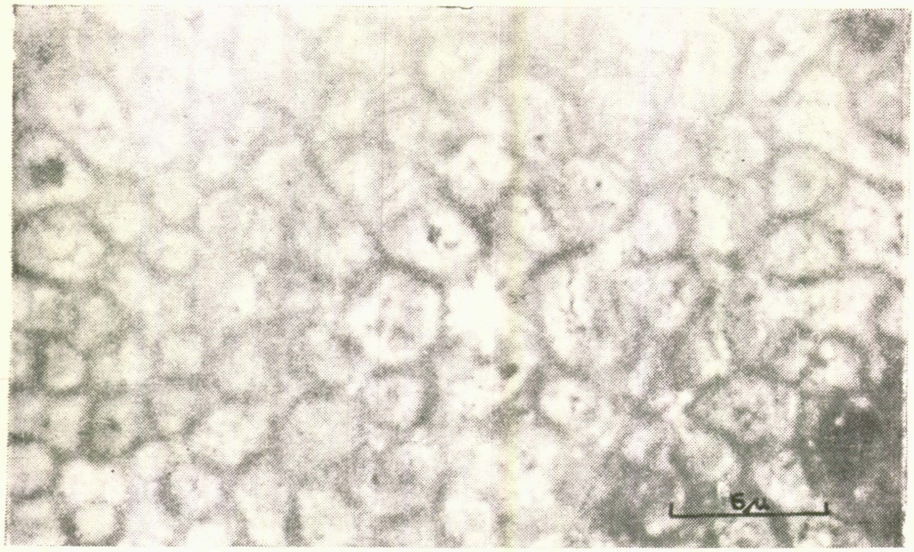

Figure 2. Cross Section of *Actinosiphon* Sp.

by David and Pinfold (1937) calling it *Polylepidina punjabensis* and later, Narayana Rao (1940) included this genus under *Orbitosiphon*. This find further confirms Eocene age to part of the sedimentary sequence of Kerala and also suggests marine incursion during Early Eocene in this area.

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