

Some observations on *Utaturiceras* Wright from the Upper Cretaceous of South India

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Introduction

Utaturiceras Wright has a complicated and interesting history. The genotype *Ammonites vicinalis* Stoliczka was described and amply figured by Stoliczka (1865) from the Upper Cretaceous of South India. Stoliczka *op. cit.* pointed out the resemblance between the genotype and *Ammonites saxbii* Sharpe. Kossmat (1898) transferred this species to *Acanthoceras* (Neumayr). Spath (1926) considered it an index to Top Cenomanian. Wright (1956) erected a new genus *Utaturiceras* designating *Ammonites vicinalis* Stoliczka as its genotype, placed in the *Metoicoceratinae*. Casey (1960) on the basis of Stoliczka's remarks and further study of his material regarded this species as a synonym of *Mantelliceras* sp. related to the *saxbii* group. Matsumoto *et al* (1966) revised this species and pointed out the differences in the sutures of *Utaturiceras vicinale* (Stoliczka) and *Mantelliceras* and later Matsumoto *et al* (1969) suggested a new sub-family for *Utaturiceras* and certain other forms naming it *Utaturiceratinae*. Kennedy and Hancock (1971) have disagreed with Matsumoto and consider it an unfortunate assessment. They have opined that *Utaturiceras vicinale* (Stoliczka) should be placed as an extreme variant of *saxbii* group and have thus agreed with Casey (1960).

Observations

The author has made collections and studies of the Upper Cretaceous of South India while studying the acanthoceratids. The following are some pertinent observations.

Utaturiceras vicinale (Stoliczka) is represented by very few specimens in the author's collection, and is not a common species in the Upper Cretaceous of South India. It is found to occur in the brownish yellow sandy limestones between Odium and Kunnarn from the *Calycoceras choffati* zone (Chiplonkar and Phansalkar 1976). *U. vicinale* (Stoliczka) is an Upper Cenomanian form, as indicated by the associated ammonoids.

Mantelliceras sp. aff. *M. saxbii* occurs near Sitali in the yellowish sandy limestone, just above beds of similar lithology which have yielded *Mortoniceras* (*Mortoniceras*) *inflatum*, *Stoliczkaia dispar*, *Mariella bergeri* and *Anisoceras armatum*, referable to *M. (M.) inflatum* zone Chiplonkar and Phansalkar *op. cit.* It is interesting to note that some of Stoliczka's specimens of *Am. vicinalis* have come from this locality.

Discussion

Utaturiceras has been diagnosed by Wright (1957 p. 416) as 'typically compressed with flat ribs, early whorls with distinct umbilical, inner and outer ventrolateral and siphonal tubercles but inner ventrolateral and siphonal ones may weaken on outer whorls'. This generic diagnosis is pertinent as it clearly mentions the presence of a siphonal row of tubercles.

While comparing the present material, the author had an opportunity to study Stoliczka's types preserved in the type collections of the Geological Survey of India at Calcutta. G.S.I. Type No. 186 is a small form which resembles *Mantelliceras* in ornament but has a faint siphonal ridge on its inner whorl which disappears on the outer whorl. G.S.I. Type No. 183 and 184 show development of cheverons due to fusion of inner and outer ventrolateral tubercles on the last one fourth part of the outer whorl. This makes the author believe that they should be identified as *Protacanthoceras*. G.S.I. Type Nos. 187, 189 and 190 are typical *Utaturiceras* and show siphonal tubercles on the early whorls.

It is evident that Stoliczka's types exhibit a wide range of variation. His *vicinalis* in my opinion should now be identified as species belonging to (1) *Mantelliceras* (G.S.I. Type No. 186) (2) *Protacanthoceras* (G.S.I. Type Nos. 183 and 184) and (3) *Utaturiceras* (G.S.I. Type Nos. 187, 189 and 190).

Utaturiceras vicinale (Stoliczka) in South Indian Upper Cretaceous is a distinct Upper Cenomanian form well distinguished from *Mantelliceras* sp. which occurs in the Lower Cenomanian in this basin.

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