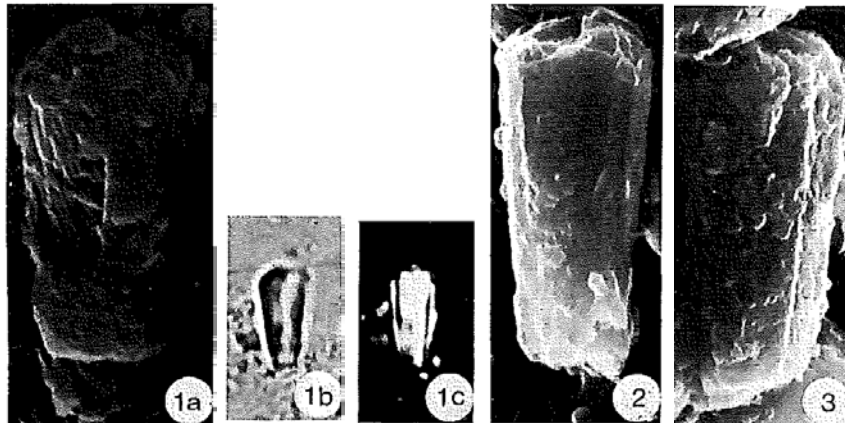


99. *Eoconusphaera tollmanniae* Jafar (1975)



Figs 6-1, 6-2, 6-3

Derivation of name: Generic name after resemblance with genus *Conusphaera* TREJO, 1969; specific epithet named after Mme KRISTAN-TOLLMANN Austria.

Holotype: Figs. 6-1a-c; negative number: 65227/3554.

Paratypes: Fig. 6-2; negative number: 64775/3747; Fig. number: 64768/3544.

Type level: Holotype from "Zlambach-Schichten", Upper Norian (Sevatian) = *Rh. suessi* ammonite zone (sample KZL-14).

Type locality: Kleiner Zlambachgraben, Austria.

Specific description: Under normal light, these nannofossils show fairly high relief; under crossed nicols, the solid cone appears to be enveloped by a single layer. Whereas the tapering part of conical cylinder exhibits a more or less flat nature, the broader part invariably shows a domed profile. Under the SEM, the holotype shows an outer envelope of flat longitudinal elements, and the outer surface of the inner core displays fine needle-like elements which are closely spaced and distinctly twisted (seen in the broken part). The presence of an axial canal could not be detected in a large number of specimens examined in both types of microscopy.

Dimensions of holotype: Length of cone: 6.5 microns.

Remarks: *Eoconusphaera tollmanniae* shows closest affinity with *Conusphaera mexicana* TREJO, but differs in having a dome-shaped broader end and lacking an axial canal. However, variations in size, shape and some ultrastructural details are strikingly similar in both species (GRUN & ALLEMANN, 1975). Interesting is the fact that *E. tollmanniae* occurs abundantly in the upper part of the *Rh. suessi* ammonite zone (Fig. 4), hence the possibility of contamination from younger horizons can be ruled out. Moreover, *C. mexicana* TREJO, first appears at the Kimmeridgian-Tithonian boundary (THIERSTEIN, 1976), and taking this into consideration, the creation of a new genus can

be justified. The absence of an axial canal and the ultrastructure distinguish this genus from *Nannoconus* KAMPTNER.

The simple structure of the cones suggests their possible holococcolith nature, but better preserved specimens and the use of transmission electron microscopy would help in confirming this. Painstaking efforts were made to test, if these cone-shaped nannofossils were dislodged from original forms of spherical configuration, parallel to that reported for *C. mexicana* by TREJO, 1969, but a thorough search failed to support this.

Closely spaced sampling is needed to prove the potential stratigraphic value of this species as it was found scarce to absent in the lower part of the *Rh. suessi* ammonite zone.

Jafar, S.A., 1983. Significance of Late Triassic calcareous nannoplankton from Austria and Southern Germany. *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, **166(2)**: 218-259.