

Taxonomic revision of selected Tithonian species based on examination with mobile mounting technique

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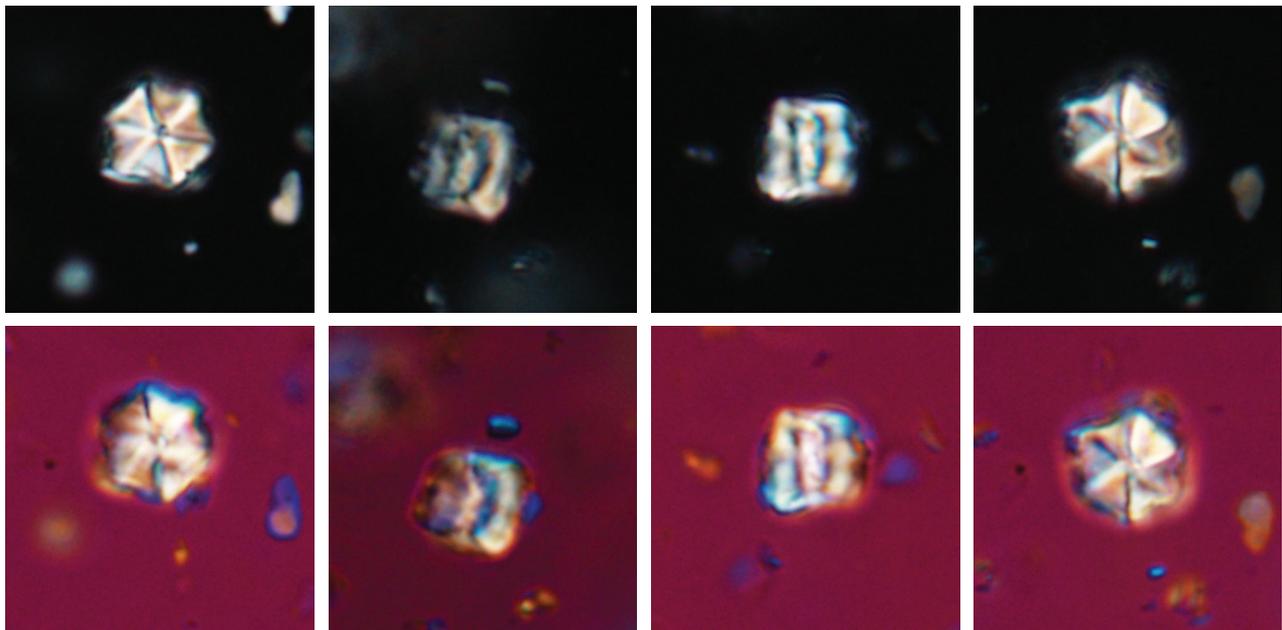
The stratigraphic ranges of the Tithonian species *Polycostella senaria*, *Hexalithus geometricus*, *Hexalithus strictus*, *Nannoconus compressus*, *Nannoconus erbae*, and *Nannoconus infans* have been reported in several publications as being diachronous. Bralower *et al.* (1989), Casellato (2010), and Bergen *et al.* (2014) independently analyzed similar sample sets from DSDP Site 534, ultimately producing different and unique stratigraphic ranges of the same species (Figure 5, Bergen *et al.*, 2004).

We utilized the mobile mounting technique to investigate the morphologic characteristics of the above species in different views, observed through rotation of the specimens. We demonstrate that the discrepancies in the ranges are primarily caused by the misunderstood taxonomic concepts representing these forms. Using this technique, we mapped the side views of these forms to their associated plan views. The side views/plan views of the following species have also been mapped in this paper: *Conusphaera mexicana*, *Conusphaera rothii*, *Conusphaera mexicana*

minor, *Polycostella beckmannii*, *Paleomicula maltica*, and *Acadialithus valentinei*.

References

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Polycostella senaria [same specimen in mobile mounting]