

# Pleistocene calcareous nannofossil biochronology and biozonation

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A new Pleistocene zonation, which is based on ODP Legs 154 and 161 and calibrated by cyclostratigraphy, is presented. This biozonation builds on the standard zonations of Martini (1971), Gartner (1977), Okada & Bukry (1980), Rio *et al.* (1990), and Young (1991). Some of the bioevents used in this zonation are from de Kaenel *et al.* (1999) and de Kaenel (2000). New analyses were carried out on sediments from ODP Legs 154 and 161, which provided additional data for a major revision of the Pleistocene reticulofenestrads. This in turn made it possible to establish new bioevents, thus increasing Pleistocene dating resolution. The standard zonal coding (NN) of Martini (1971) was used, and new subzones have been added that incorporate variations in morphology (size and coccolith outline) and abundance, as well as first and last occurrences.

## References

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