

Rudists in the Mesozoic: Explanatory Bibliography

Morphology^[1]

- Shells of Rudists differ, some are made from aragonite, some from calcite. Aragonite is less preservable than calcite. Caprinidae rudist fossils, whose shells are made from aragonite, are less likely to be found than Radiolitidae rudists
- 3 “valve plans”
 - 1 large, coiled valve
 - 1 large, conical-shaped valve
 - 1 large, coiled free valve

Ecology

- Drove out scleractinian corals
- Success due to the warmer temps. In tropical waters (6°C and 14°C warmer than today)

Evolution^[1]

- Earlier rudists tended to have wide, more coiled bases; in contrast, later rudists had thinner bases, more erect forms, and more ornamentation (features for display rather than use)
- Evolved the ligamental groove, first became distinctive in Caprotinidae
 - Allowed for more uncoiled shell designs
 - Radiolitidae and Hippuritidae lost this ligament in order to allow for an upright growth
 - Rudist fauna had “five stocks”
 - Requierenids, monopleurids, caprotinids, radiolitids, and coalcomaninid caprinids

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Plot of rudist species records showing the abundance of various rudist families^[3]

