

ON THE OCCURRENCE OF *NEOGLOBOQUADRINA ACOSTAENSIS*
IN UPPER SERRAVALLIAN SEDIMENTS
OF SICILY

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Riassunto. Alcuni esemplari di *Neogloboquadrina acostaensis* sono stati rinvenuti in sedimenti tardo-serravalliani di una carota prelevata nell'offshore della Sicilia meridionale. Questo ritrovamento potrebbe rimettere in discussione la data di comparsa di tale taxon.

Summary. *Neogloboquadrina acostaensis*, typical Tortonian taxon, was found in Upper Serravallian sediments in a core collected in the southern offshore of Sicily. Whether the FAD of this taxon is to be considered older is here questioned.

In a core of well Vera 1 –AGIP– that was drilled few kilometers off Capo Passero, the southernmost promontory of Sicily, some marly sediments provided a very rich and well preserved Late Serravallian foraminiferal assemblage. *Globigerina decoraperta* Takayanagi & Saito, *G. druryi* Akers, *Globigerinoides immaturus* Le Roy, *G. quadrilobatus* Banner & Blow, *G. sacculifer* (Brady), *G. sacculifer subsacculifer* Cita, Premoli Silva & Rossi, *G. trilobus* (Reuss), *Globoquadrina altispira* (Cushman & Jarvis), *G. baroemoenensis* (Le Roy), *Globorotalia continuosa* Blow, *G. mayeri* Cushman & Ellisor, *G. gr. menardii* (d'Orbigny), *G. praemenardii* Cushman & Stainforth, *G. siakensis* Le Roy, *Orbulina bilobata* d'Orbigny, *O. suturalis* Brönnimann and *O. universa* (d'Orbigny) mostly characterize this microfauna.

Among these forms, several typical *Neogloboquadrina acostaensis* specimens were found. They show low trochospire, 5–5½ to 6 chambers in the last whorls, ovate to subspherical in shape, that gradually increase in size; last chamber usually rather reduced in size, sometimes slightly displaced towards

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the umbilicus; equatorial outline subcircular or grossly inscribable within a polygon, axial outline parallel—sides, both with rounded periphery; umbilicus narrow and rather deep; sutures straight or slightly curved on spiral side, radial on umbilical side; aperture a low slit, that stretches from the umbilicus to the periphery, with well developed sinuous lip; test wall distinctly perforate, all but in the last chamber that is generally characterized by smoother and less perforate surface.

Conclusions.

The presence of *Neogloboquadrina acostaensis* in these upper Middle Miocene sediments of Sicily is rather noteworthy. First of all, it could indicate a possible southern way of immigration of this taxon within the Mediterranean area. On the other hand, its co-occurrence with typical Serravallian forms makes its FAD older than commonly known. This disagrees with what universally acknowledged up to now (Blow, 1969; Bizon G. & Bizon J.J., 1972; D'Onofrio et al., 1975; Stainforth et al., 1975; Colalongo et al., 1979; Lozano, 1979; Keller, 1980, 1981; Poore, 1981; Srinivasan & Kennett, 1981 a,b; Thunell, 1981; Berggren et al., 1983; etc.).

There is also the possibility that the anomalous distribution of *Neogloboquadrina acostaensis* could be due to a generalized reworking of all the other distinctive taxons of these sediments. However, by a strict paleontological and biostratigraphical point of view, I find it more parsimonious to believe the *Neogloboquadrina acostaensis* FAD older than to consider the possibility of a so strong reworking. This seems furtherly suggested both by the consistency of the Serravallian faunal assemblage that goes with these few *Neogloboquadrina acostaensis* specimens and, at last, by the same overall preservation of these foraminifers.

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- Fig. 1 – *Neogloboquadrina acostaensis* Blow. Umbilical view; x 250.
- Fig. 2 – *Neogloboquadrina acostaensis* Blow. Spiral view; x 250.
- Fig. 3 – *Neogloboquadrina acostaensis* Blow. Umbilical view; x 250.
- Fig. 4 – *Neogloboquadrina acostaensis* Blow. Lateral view; x 250.
- Fig. 5 – *Neogloboquadrina acostaensis* Blow. Umbilical view; x 250.
- Fig. 6 – *Neogloboquadrina acostaensis* Blow. Umbilical view; x 250.
- Fig. 7 – *Globorotalia siakensis* Le Roy. Umbilical view; x 200.
- Fig. 8 – *Globorotalia siakensis* Le Roy. Umbilical view; x 200.
- Fig. 9 – *Globorotalia continua* Blow. Umbilical view; x 300.
- Fig. 10 – *Globoquadrina baroemoensis* (Le Roy). Umbilical view; x 150.
- Fig. 11 – *Globoquadrina baroemoensis* (Le Roy). Umbilical view; x 150.
- Fig. 12 – *Globorotalia siakensis* Le Roy. Umbilical view; x 200.
- Fig. 13 – *Globorotalia continua* Blow. Umbilical view; x 250.
- Fig. 14 – *Globorotalia praemenardii* Cushman & Stainforth. Umbilical view; x 200.
- Fig. 15 – *Globorotalia praemenardii* Cushman & Stainforth. Spiral view; x 150.
- Fig. 16 – *Globorotalia praemenardii* Cushman & Stainforth. Spiral view; x 150.

