Triassic calcareous nannofossils are rarely encountered due to their poor preservation and low diversity. Well preserved Late Triassic nannofossils have been described in limestone-marl alternations from alpine sections in Northern and Southern Alpes, and from boreholes in NW Australian continental shelf. First biostratigraphic consideration of Late Triassic nannofossils belongs to Prins (1969), who described *Crucirhabdulus primulus* from nonspecified locality and defined a taxon range zone *Crucirhabdulus* (Rethian–Chetangian). Unfortunately his new taxa remained invalid because their description did not meet the requirements of the code of ISBN. Thus the new species *Crucirhabdulus primulus* was introduced by Rood et al. (1973) based on TEM microphotographs. Jafar (1983) confirmed the presence of this species in Upper Triassic carbonate rocks in NE Alps on the territory of Germany and Austria. He described new genera and new species calcareous nannofossils – *Euconosphaera tollmannia* and *Prinsiosphaera triassica* with several subspecies based on SEM investigation. Brallower et al. (1991, 1992) believed that difference between these subspecies is a result of etching and overgrowth of the outer wall and this gives rise to the diversity of forms described by Jafar (1983). They referred the hollow forms of *Prinsiosphaera geometrica* Jafar to the genus *Thoracosphaera* Kamptner (*T. geometrica*). The authors defined a taxon range zone Prinsiosphaera triassica (Carnian–Norian) assigned to the Omurtag/Tvar ditsa Formations (Carnian–Norian). They contain poor nannofossil assemblages with characteristic Late Triassic forms.

In the present study calcareous nannofossils from borehole R-1 Golitsa in East Balkan are described, recovered from the interval between 3488 and 3740 m composed of motley clayey and micritic limestones with marl intercalations, assigned to the Omurtag/Tvarditsa Formations (Carnian–Norian). They contain poor nannofossil assemblages with characteristic Late Triassic forms.
Obliquipithonella balcanica new species (Pl. I, d)
Derivation of name: from Balkan Mountain.
Holotype: EBG-1-3520-1, depth 3520 m.
Diagnosis: Relatively small hollow calcispheres with a shell in the shape of a flattened from the poles (oblate) spheroid with a broadly elliptical side view. This is a thin-walled species with a gentle shell composed of a mosaic of small irregular interlocking elements, with oblique calcite crystals “at various angles and directions” typical for the genus Obliquipithonella. The eccentricity of the shell is 0.67.
Size: long diameter – 9 μm, short diameter – 6 μm.
Age: Late Triassic.

Obliquipithonella oviformis new species (Pl. I, e, f)
Derivation of name: from its ovoid form.
Holotype: EBG-1-3495-3, depth 3495 m.
Diagnosis: Oviform representative of the genus Obliquipithonella with a prolate form and a thick wall of coarse irregular interlocking calcite elements. The holotype demonstrates repetition of complex configuration of calcite elements along the long axis of the spheroidal body. The excentricity of the specimens observed is 0.62–0.63.
Size: long axis 9–12 μm, short axis 6–7 μm.
Age: Late Triassic.

Polycostella triassica new species (Pl. I, g, h)
Derivation of name: from Triassic.
Holotype: EBG-1-3495-3, depth 3495 m.
Diagnosis: Circular shaped nannolith with heliolithic structure composed of six rough, irregular elements, radially arranged around the center. The plan view of the figured specimen shows the structure typical for the representatives of the genus Polycostella Thierstein.
Size: 9 μm in diameter.
Age: Late Triassic.

References