Geodynamic environment aud paleoecology of upper Cretaceous-Paleogene basins of the eastern part of the central segment of Ajara-Trialeti folded zone

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In the eastern part of the central segment of Ajara-Trialeti folded zone Cretaceous rock units are represented by two facies: volcanogenic and carbonate. Cores of huge anticlines of the mentioned segment are built up by volanigenic series, overlain by Upper Cretaceous carbonate suites represented by pink, reddish, white and gray limestones interbedded by marls, where lenses and veins of quartz are present as well. Carbonate Upper Cretaceous upwards in the crosssection passes into Paleocene-Lower Eocene flish unit, known as "Borjomi flish" (P. Gamkrelidze , 1949). It's made up by rhythmic alternation of limestones, marls, clays and argillites (terrigenous-carbonat series) in the upper part of which products of volcanism are also present. Paleocene-lower Eocene deposits upwards in the section pass into Middle Eocene thick volcanigenic-sedimentary wuite which is mainly built up by sub alkaline basaltoids. Tough in the eastern direction appear calcalkaline varieties and more acid rocks –andesite-basalts and audesites.

In the central segment Cretaceous-Paleogene cycle of sedimentation was discontinuous and was reflected in unconformities before Turonian, Late Senonian, Late Paleocene and Middle and Late Eocene. At the same time in upper Cretaceous and Paleocene-Eocene rock units presence of intraformational conglomerates, breccias and olistolites is common and points out their regressive nature (A. Tsagareli 1964; G.Nadareishvili 1981).

According to structural-geological and geomorphological features of the investigated areas, in the outcrops of upper cretaceous and Paleocene flish series only small areas of bedding planes are exposed. That's why traces of ichnofossils are fragmental, poorly preserved and in fact hardly defined.

From paleoichnological point of view in the central segment of Ajara-Trialeti zone is interesting Middle Eocene volcanigenic-sedimentary series. As a result of investigations on the different levels of the series has been determined presence of various ichnocenosis: in the lower part –spiral shaped species common for the deep seafloor: Spiroraphe, Cosmoraphe, Neonereites (crosssections of the rr. Thana, Mtkvari (v. Akhaldaba, Likani, Borjomula) and in the upper part is present species Gyrochorte-common for the shallower basins (the r. Thana section).

So in the cross section of the central segment of Ajara-Trialeti zone are developed facies, characteristic for the basins with frequent fluctuation of the seafloor. For Middle Eocene time this event is testified by palioichnological data.