

calcite crystals with kink bands and smaller included quartz grains. Overall, the Pelagonian carbonates have been subjected to an early ductile deformation that is crosscut by a subsequent brittle deformation.

Between the ophiolitic nappe and the Pelagonian carbonates lies a 400 m – 600 m thick wedge of phyllitic to schistose sediments with intercalated fault wedges, the Zavordas Mélange (ZM). The main part of the ZM is formed by the Agios Nikolaos Formation. This formation is predominantly composed of phyllitic, pebbly mudstones and carbonate mylonites. The carbonate mylonites are very soft and easy to erode. Thus, the Aliakmon mainly cuts its valley into this unit. It contains microcrystalline as well as granular crystalline calcite with kink bands running through twin lamellae. Furthermore, a minor amount of quartz can be found. The fault wedges, intercalated in the ZM, consist of autochthonous as well as allochthonous rocks. The allochthonous rocks are meta-diorite, pillow lavas and the so-called “rainbow rocks“. The meta-diorites contain twinned plagioclases and grain size grades to gabbroic. The pillow lavas exhibit intersertal mineral laths and few epidotes. The “rainbow rocks” include interbedded strata of quartz-bearing micritic carbonates, volcanic ashes and tuffs and detrital silts.

Large parts of the mapped area are covered by young conglomerates, breccias and rock slides either from Vounassa or Vourinos mountains.

Lithostratigraphy of the Pleistocene deposits of Georgian sector of the Black Sea

Jaoshvili G.¹, Popkhadze L.² and Tvalchrelidze M.²

¹*Department of Geology, The National Environmental Agency, 150 Agmashenebeli ave. 0112, Tbilisi, Georgia, gjaoshvili@environment.ge*

²*Geological Institute, 1/9, M.Alexidze str. 0193 Tbilisi*

Researches took place in the South of Georgia (Guria region). Studied geological sections lie 1.5-4 km from the present Black Sea coastline. Pleistocene marine sediments are represented by terraces located at different hypsometric levels with maximum height 120 m on the mountain of Tsvermaghala. Due to neotectonic movement, the Old Euxinic sediments are located at the higher hypsometric level than the younger Uzunlarian and Karangatian. In the region under study the background sediment of the base of Old Euxinic sections, are mud deposits, upward they gradually pass to fine and middle size sands. The base sediment probably was deposited in offshore zone at a depth until approximately 50 m. The Uzunlarian and Karangatian sediments are represented by typical shore zone sediments. Uzunlarian sediments unconformably overlie the inverted Miocene. The base of these sediments contains abrasion clay blocks of the before Pleistocene age. Chemical analysis of the Pleistocene and contiguous recent Black Sea shore sediments on metal content reveals similarity of feeding provinces. The higher contents of manganese and Nickel in the recent sediments are caused by anthropogenic factor. Stratigraphy of the studied region is based on the mollusk and ostracode faunistic complexes. Old Euxinic sedimentation conditions were more favorable for the fauna conservations than Uzunlarian and Karangatian ones, which contains very poor fauna and boundary between them is conventional.