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THE GEOTECTONIC SETTING OF LATE CRETACEOUS-TERTIARY VOLCANISM ALONG THE EASTERN PONTIDES

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The Study area is located in the vicinity of Ünye, Ordu, Koyulhisar and Reşadiye, to the west part of the Eastern Pontides. This investigation aims to evaluate the geodynamic evolution of the region in the light of regional geology and characteristics of the volcanism.

In the study area, a Cenomanian-Campanian ensialic type-arc occured on the Jurassic-Early Cretaceous platform type- carbonates representing the edge of the passive continent. On the basis of deformation intensity and facial distribution of the volcanism, consisting of andesitic or basaltic lavas and volcano-sedimentary rocks,it can be said that the arc has a trend towards the north. Andesitic volcanism occured when the arc had a neutral character and the basaltic volcanism occured when the arc had a tensional character.

The Maastrichtian-Paleocene facies changing from shallow marine to continental deposits overlie the arc-relating units unconformably. There is not any volcanic activity in the Maastrichtian-Paleocene time. The Eocene clastics and neritic carbonates overlie the older units unconformably in a regional scale and are gradually followed by the Late Eocene hybridic-type volcanics and the continental flood basalts. In addition, Upper Miocene-Pliocene alkaline-type volcanics and Quaternary shoshonitic type volcanics represent the different stages of within-plate volcanism in the region developed after the collision between the Pontian arc and Anatolid-Taurid platform.