



Berdiga Terrane and its role in the development of East Pontide (Turkey)

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East Pontide is a collage of different terranes, each one having undergone a different history after a common Hercynian orogenic phase. Berdiga Terrane is the prominent one of them, reaching from Çayeli in the east to Fatsa in the west; and from Değirmendere 23 bridge (south of Maçka) at the north to North Anatolian Fault zone in the south. A detailed structural and stratigraphical study of this terrane yields important differences with its neighbour terranes. Berdiga terrane was an oceanic plateau in the time interval from Middle Dogger until Late Albian, whereas the neighbour terranes were either oceanic basins or basins with very fault-activated futures. Those crustal differences influenced the geologic developments at its sutures, leading to development of a very distinct magmatic arc development at its northern margin, whereas the other three margins influenced more from transpressive (with partial transtensional) fault actions. Therefore the magmatism has very different geochemical characteristics at its different margins.