

Arc –Continent Collision in Central Philippines

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Abstract

The collision between the Palawan microcontinental block and the Philippine mobile belt in west central Philippines is a significant event in the tectonic evolution of the Philippine island arc system. Various authors have looked into this arc – continent collision event and have come up with different models on the extent and location of the collision boundary. Recent investigations conducted in the west central Philippine region have led to the recognition of features depicting collision, subduction and accretion events are preserved in the Central Philippine region. These events and features are attributed to the collision between the Palawan microcontinental block and the Philippine mobile belt. In the Romblon Island Group, our geological, geochemical and geophysical surveys in the Romblon Island Group has led to the identification of a complete ophiolite suite, metamorphic and sedimentary units. From the mapped lithologic units and mapped structures, the collision boundary is proposed to be situated east of the Romblon Island Group. Our recent investigation in northwestern Panay island has led to the recognition of chert - clastic sequences in Buruanga Peninsula. These sequences are similar and correlatable with those found in Palawan island indicating that the Buruanga Peninsula forms part of the Palawan microcontinental block. Results obtained from recent investigations in the west central Philippine region offer additional information regarding the collision event and help constrain the collision boundary.