

Calcareous nannofossils from the proposed Kapurpurawan National Geological Monument, Ilocos Norte (northwestern Philippines)

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Calcareous units that were observed along the northwestern tip of Burgos, Ilocos Norte were previously mapped as the upper Miocene Pasuquin Limestone (BMG, 1985; Queaño, 2006; Queaño *et al.*, 2014). Planktonic foraminiferal analyses by Pinet (1990) and Queaño (2006) confirmed the late Miocene age of the formation. A more recent planktonic foraminiferal study in the area, however, revealed a younger age of early Pliocene (Zones N18-N19), which extends the age of the Pasuquin Limestone to late Miocene to early Pliocene (Callejo *et al.*, 2015).

To confirm an early Pliocene age for the formation, a calcareous nannofossil analysis of the calcarenite and associated marly limestone/calclutite units was performed. The samples revealed poor to moderately preserved nannofossils. Despite the low nannofossil abundance, several markers were identified, including *Discoaster pentaradiatus*, *Sphenolithus abies*, and *Reticulofenestra pseudoumbilicus* ($>7\mu\text{m}$). This assemblage suggests that the samples are within nannofossil Zones NN10-NN15, which corresponds to a late Miocene to early Pliocene age.

The results of the calcareous nannofossil analysis confirm that the age of the Pasuquin Limestone is late Miocene to early Pliocene, and the definition of the formation should be extended and revised accordingly.

References

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