

Accepted Manuscript

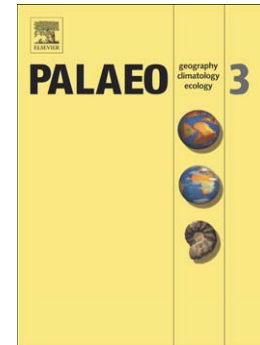
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PII: S0031-0182(14)00547-1
DOI: doi: [10.1016/j.palaeo.2014.10.032](https://doi.org/10.1016/j.palaeo.2014.10.032)
Reference: PALAEO 7069

To appear in: *Palaeogeography, Palaeoclimatology, Palaeoecology*

Received date: 9 July 2014
Revised date: 20 October 2014
Accepted date: 22 October 2014



Please cite this article as: Boonstra, M., Ramos, M.I.F., Lammertsma, E.I., Antoine, P.O., Hoorn, C., Marine connections of Amazonia: Evidence from foraminifera and dinoflagellate cysts (early to middle Miocene, Colombia/Peru), *Palaeogeography, Palaeoclimatology, Palaeoecology* (2014), doi: [10.1016/j.palaeo.2014.10.032](https://doi.org/10.1016/j.palaeo.2014.10.032)

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Marine connections of Amazonia: Evidence from foraminifera and dinoflagellate cysts (early to middle Miocene, Colombia/Peru)

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Abstract

Species composition in the present-day Amazonian heartland has an imprint of past marine influence. The exact nature, timing and extent of this marine influence, however, are largely unresolved. Here we use calcareous tests of foraminifera and marine palynomorphs from Miocene sediments in northwestern Amazonia to extend on current estimates for salinity ranges, paleoenvironments and paleogeography. Our samples mostly contain tests and/or organic linings of euryhaline (tolerant to a wide range of salinity) foraminifera of the genera *Ammonia*, *Trochammina* and *Elphidium*, with *Ammonia* being by far the dominant genus at all locations. Organic-walled dinoflagellate cysts (dinocysts), such as *Spiniferites* spp., *Polysphaeridium zoharyi* and *Tuberculodinium vancampoae*, are also common at a number of

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