

Late Neogene carbonate productivity and terrigenous input in the central Western Pacific Warm Pool (IODP Site U1488)

Preliminary results ... the stratigraphy

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International Ocean Discovery Program (IODP) Site U1488: Capturing climate evolution in the central Western Pacific Warm Pool

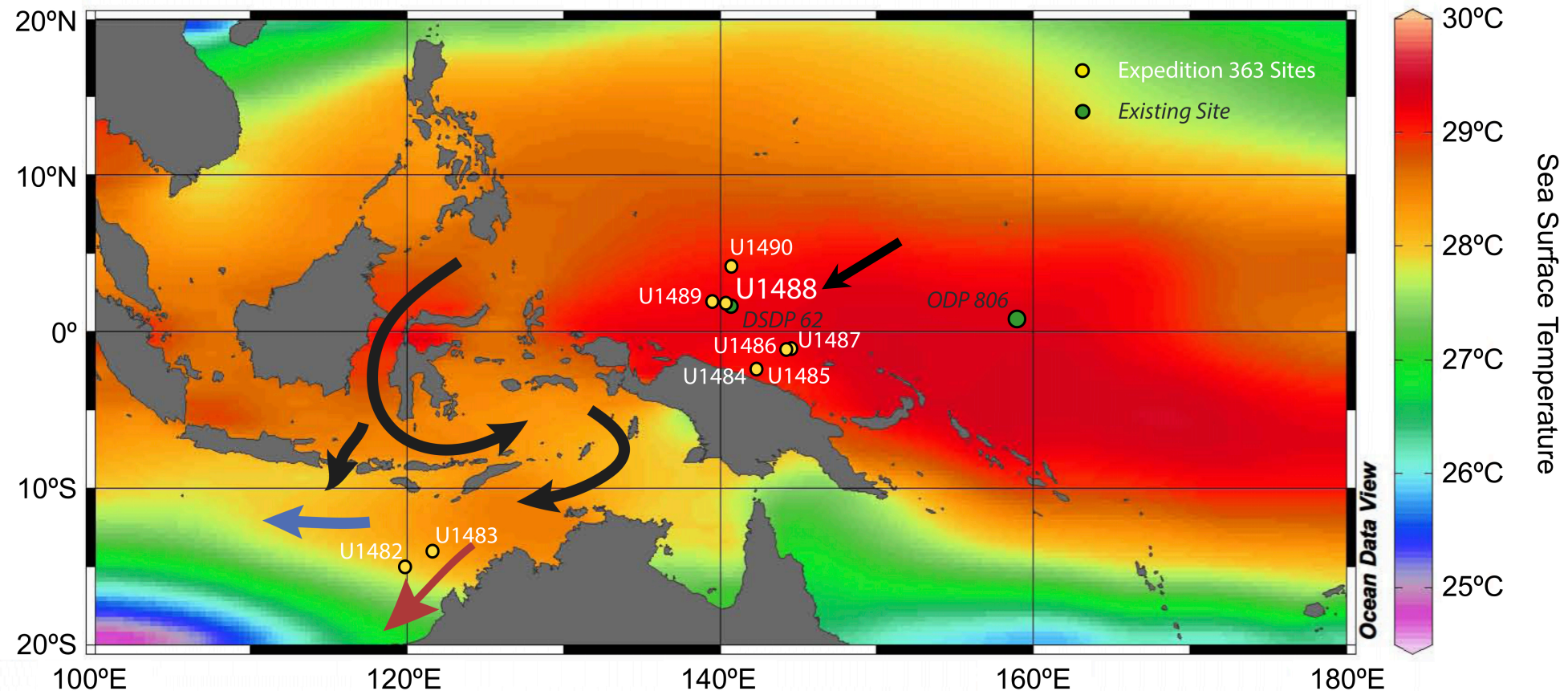


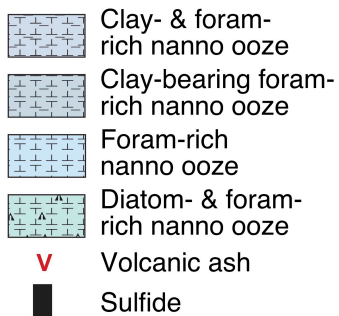
Figure 1. Map showing location of IODP Expedition 363 sites, and previously drilled DSDP/ODP sites. New data were generated at IODP Site U1488, which is located in the centre of the Western Pacific Warm Pool.

IODP Site U1488 captures late Miocene to present climate evolution

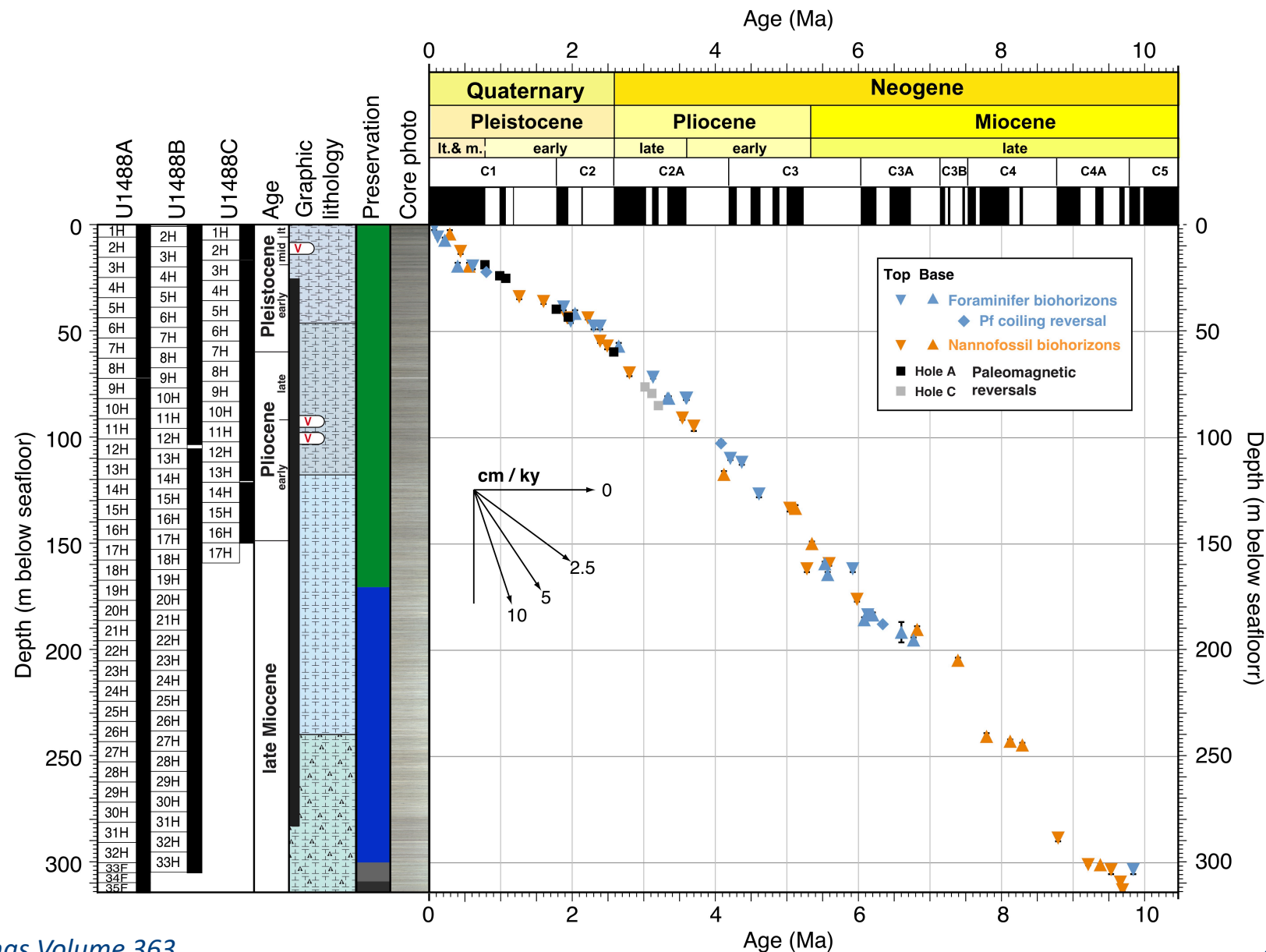
Figure 2. IODP Site U1488 spans ~0-10 Ma, with high enough sedimentation rates to capture orbital-scale climate dynamics.

The high carbonate content and good foraminiferal preservation makes it a great site for geochemical studies.

Lithology



Foraminiferal preservation



Enabling continuous reconstruction of late Miocene-Present climate evolution: verifying and revising the shipboard composite depth scale and splice

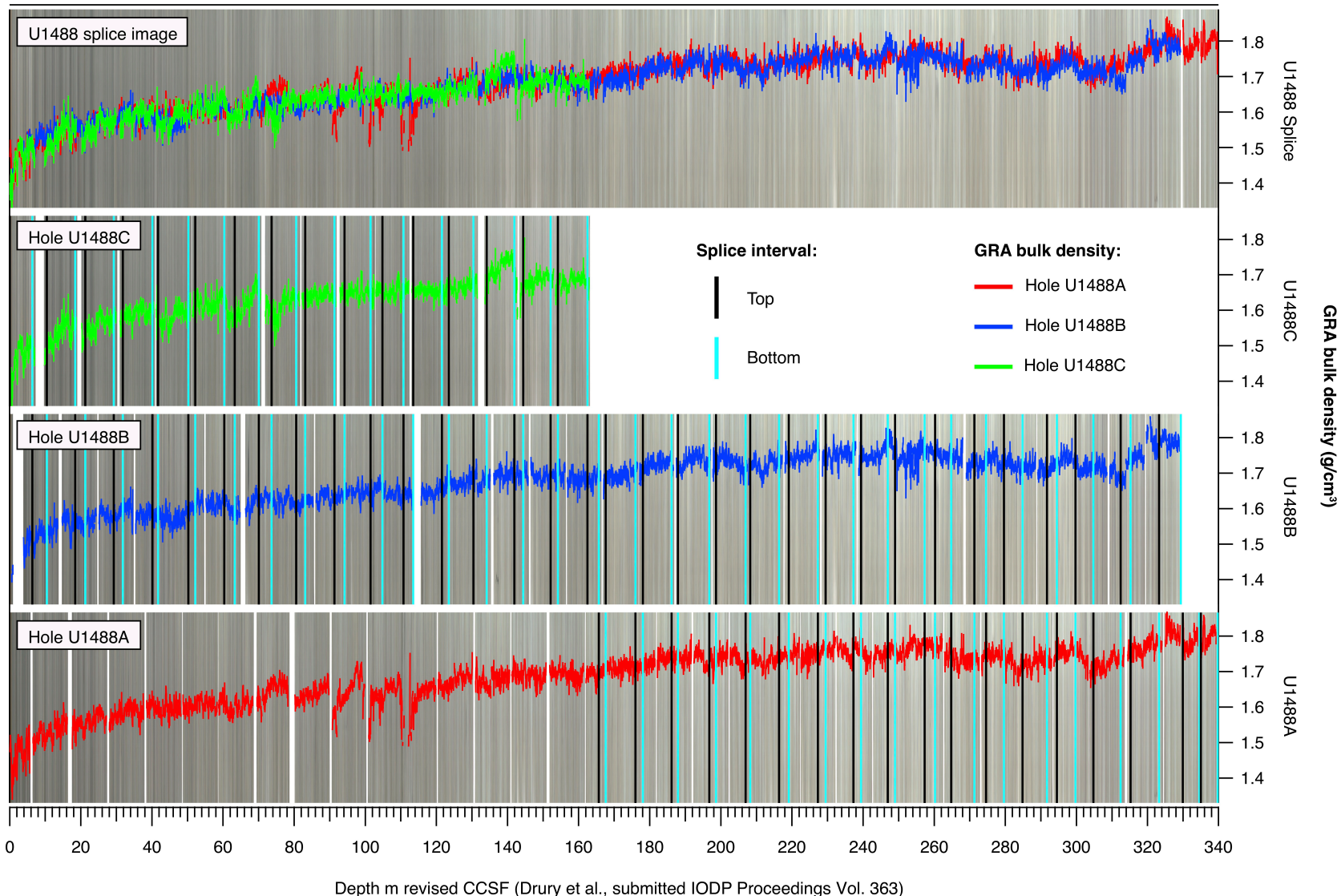


Figure 3. the revised composite splice is shown here, with the composite core photos and shipboard GRA bulk density data.

- The shipboard composite depth scale and splice were revised using XRF core scanning data.
- Revisions were necessary because the high %CaCO₃ of the sediment meant physical property data were low amplitude.
- At Site U1488, these revisions ensure a ~330 m continuous composite section ...

... and will facilitate future high-resolution and continuous palaeoceanographical studies.