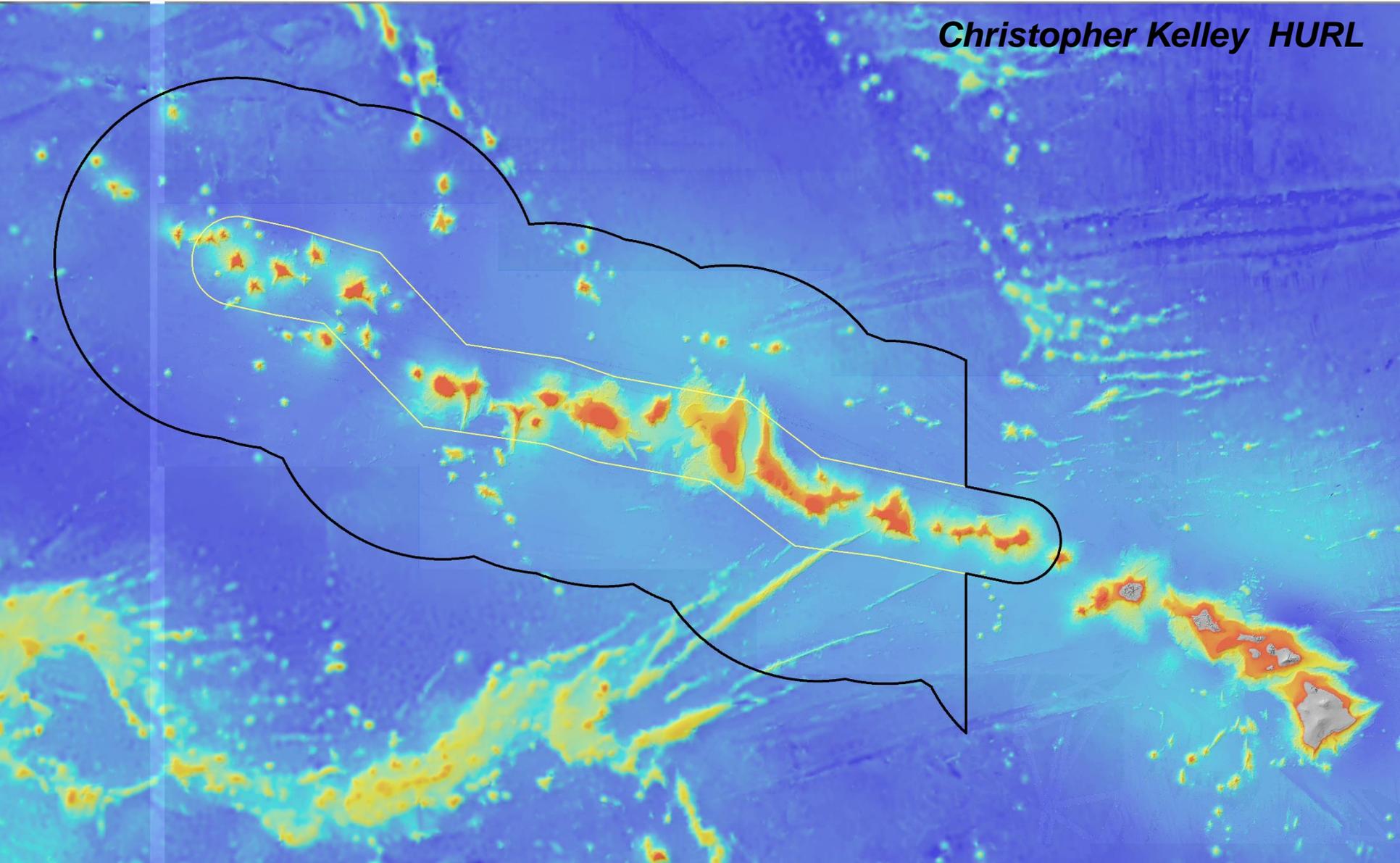
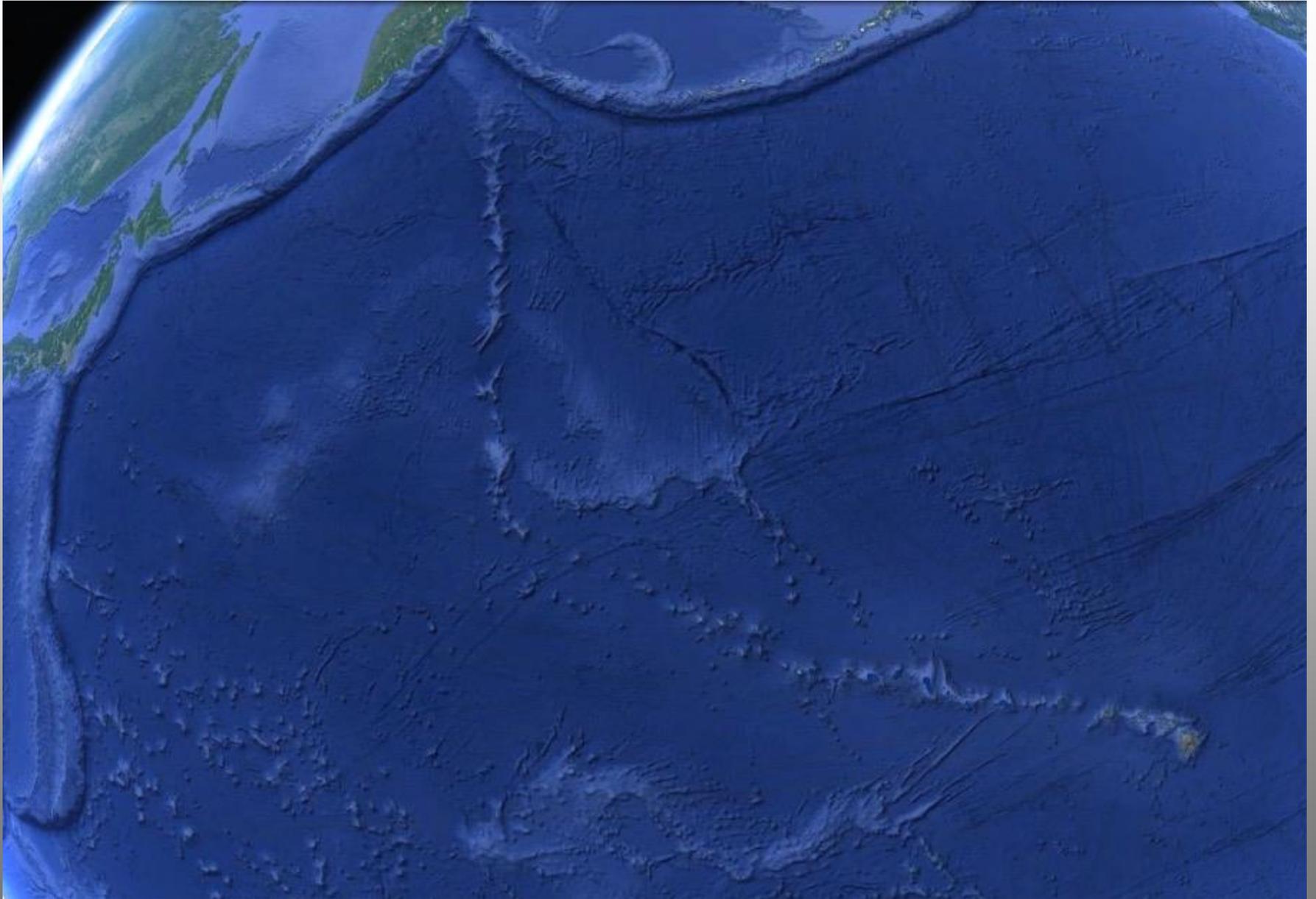


The Seafloor in the Newly Expanded Papahānaumokuākea Marine National Monument

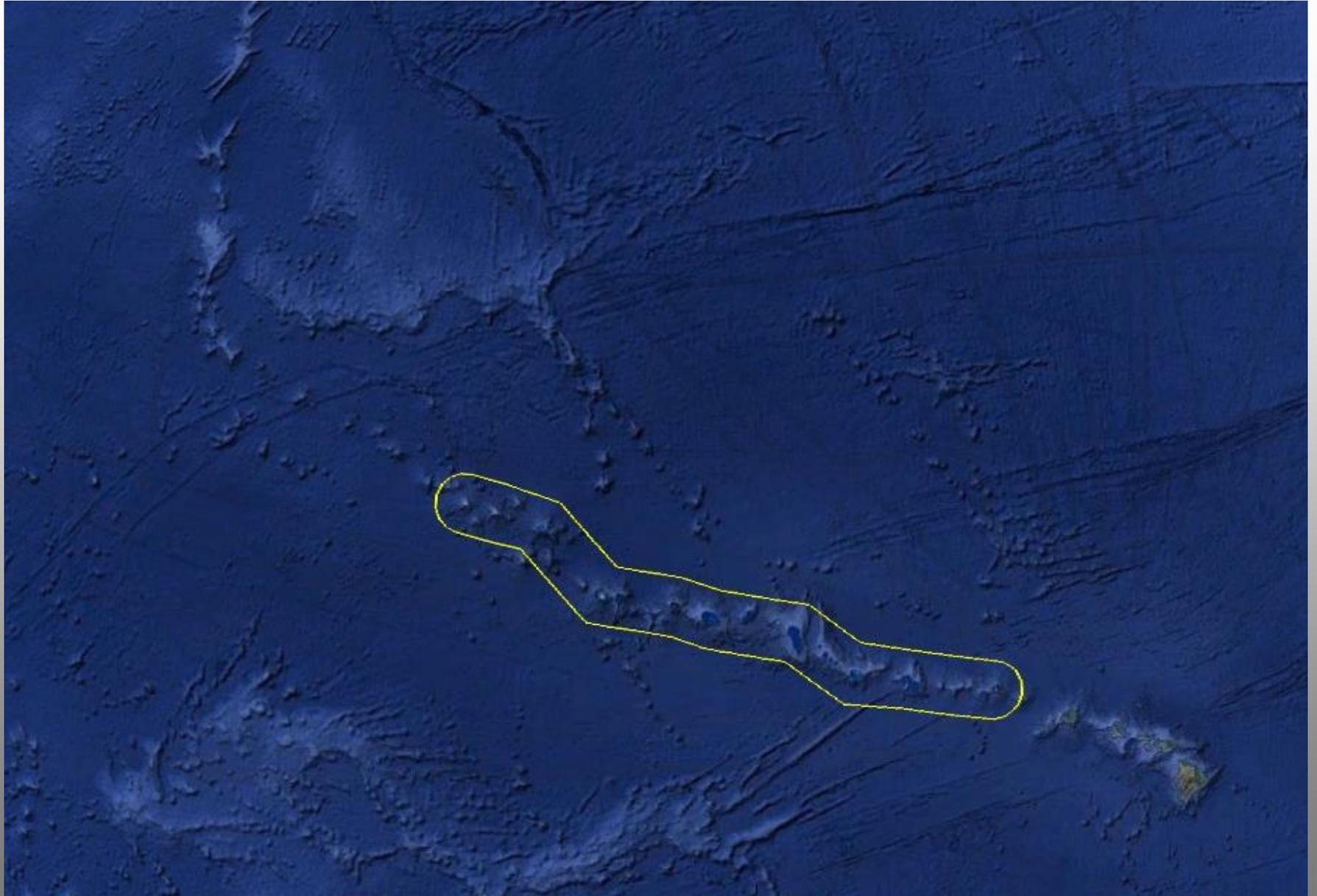
Christopher Kelley HURL



The Hawaiian/Emporer Seamount Chain



PMNM- Old Boundary



2014 Mapping of PMNM: Schmidt Ocean Institute's Ship

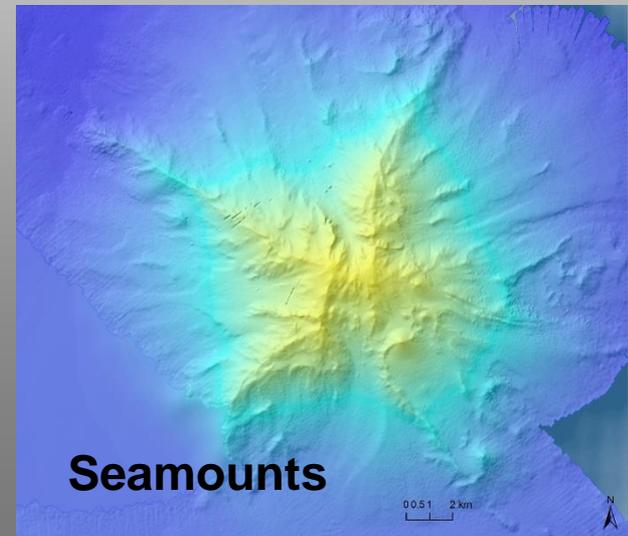
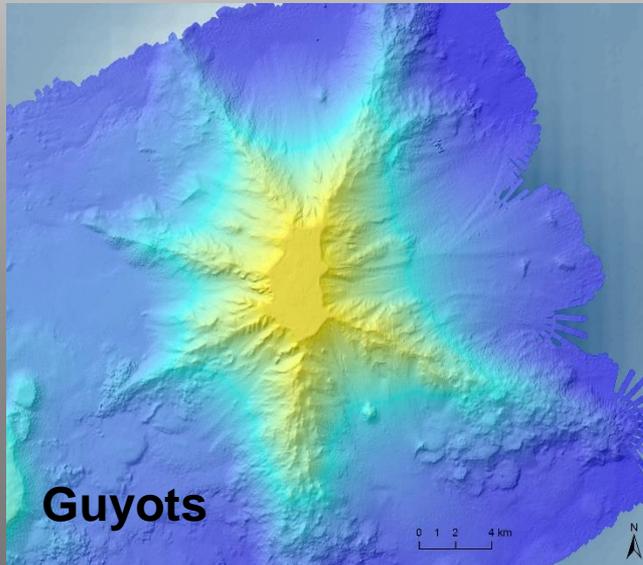
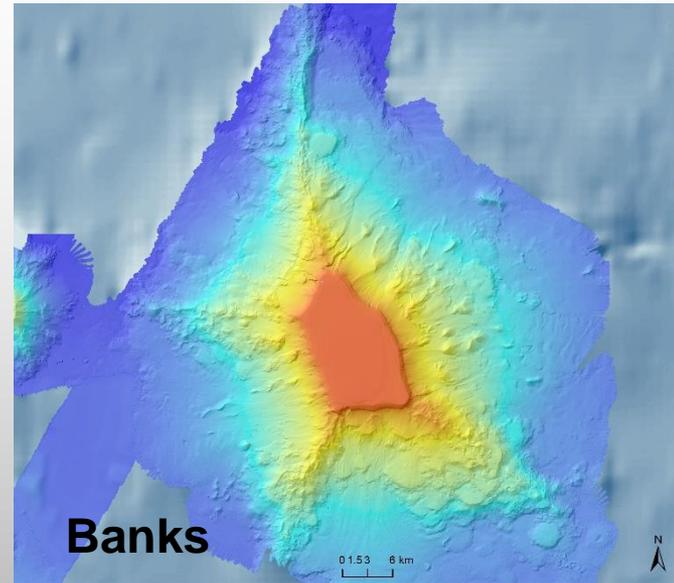
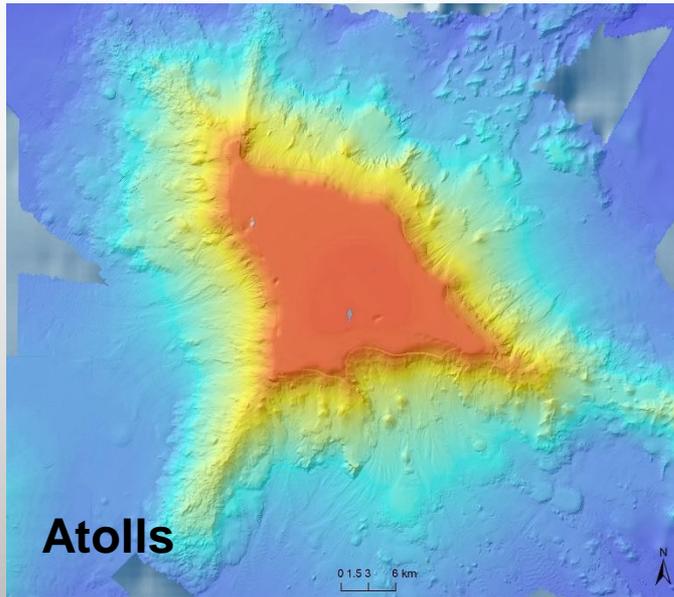


Falkor

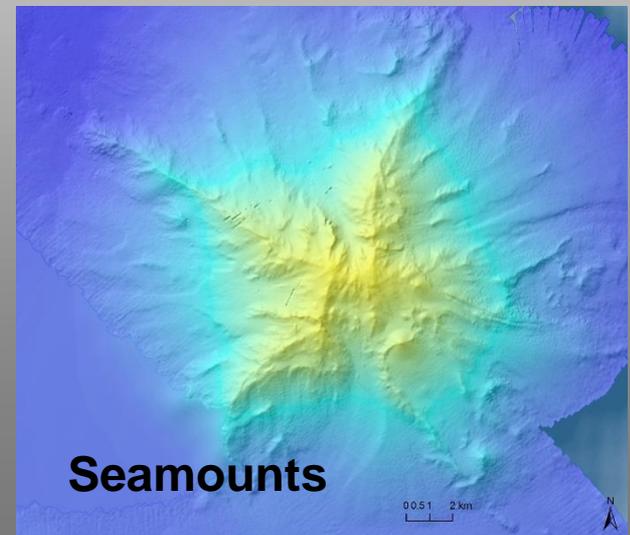
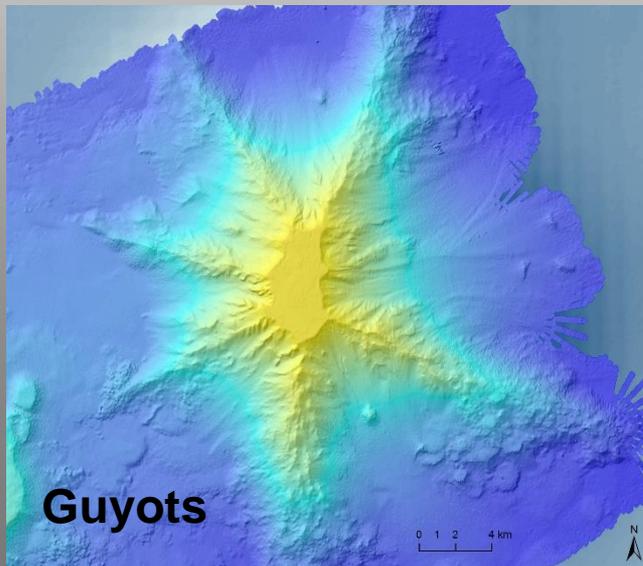
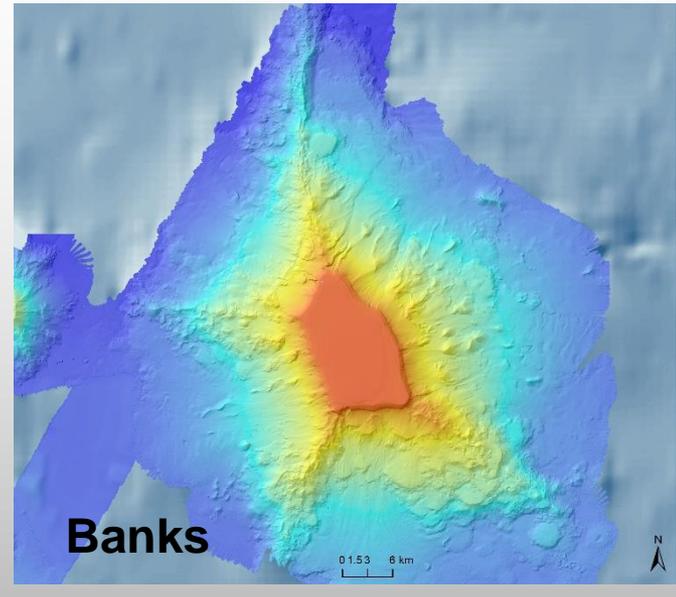
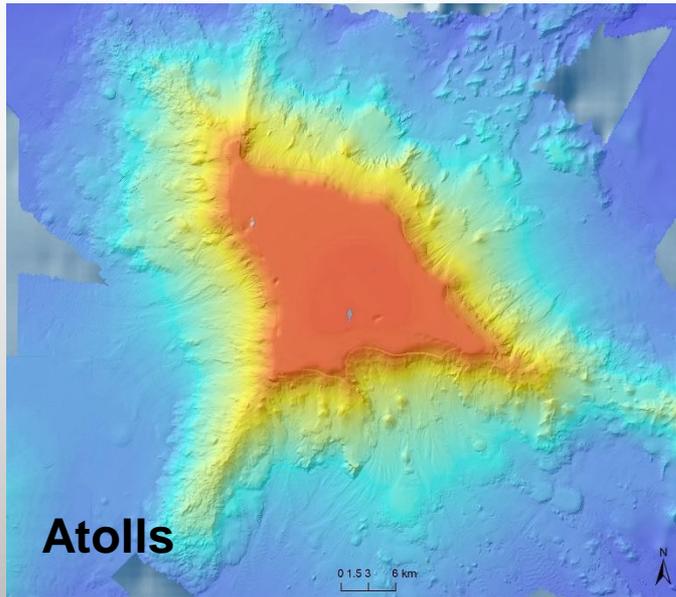


**SIMRAD EM 302 and 710
Multibeam Sonar Systems**

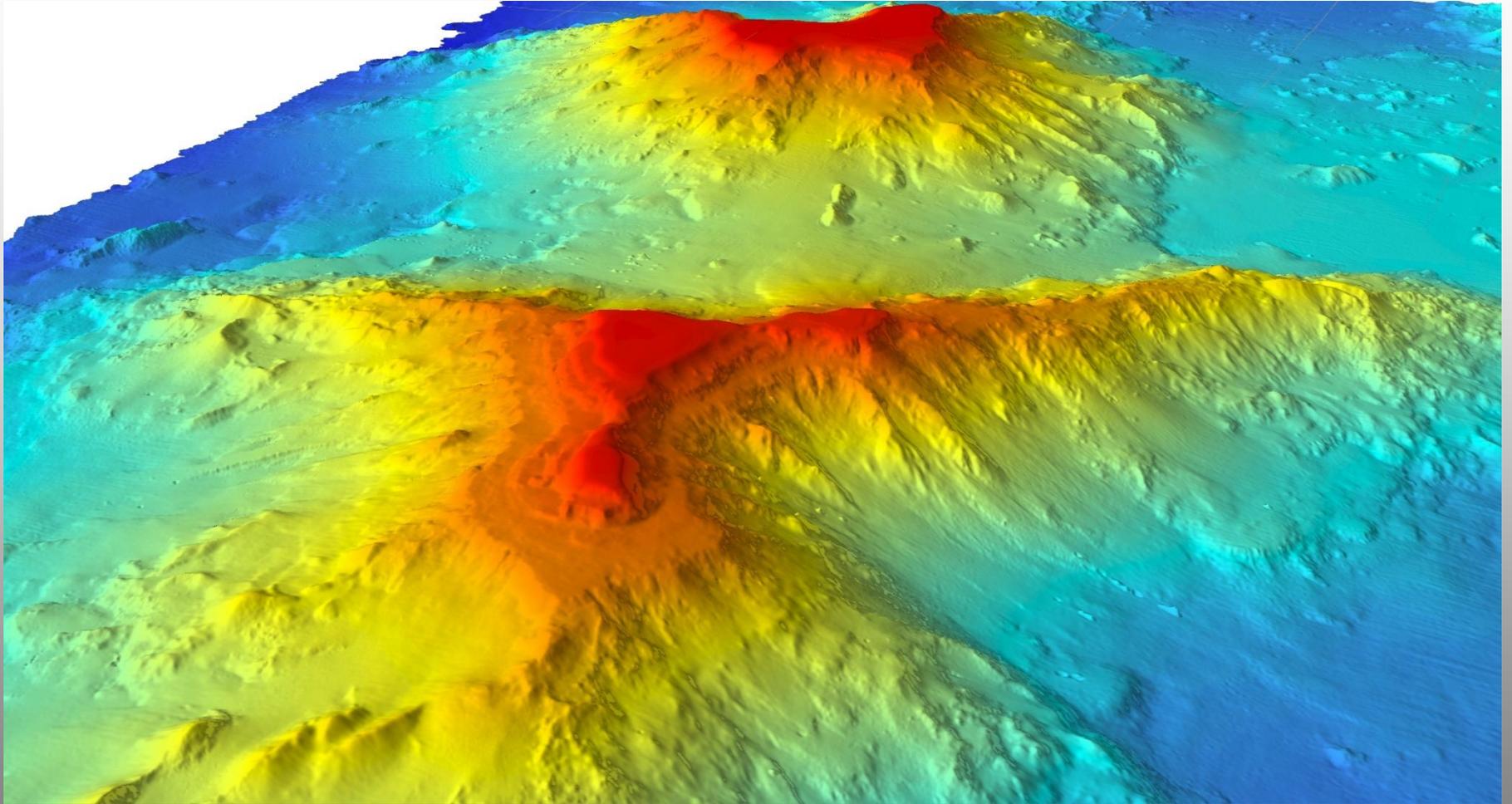
Four Primary Types of Volcanic Features are present in PMNM



Four Primary Types of Volcanic Features are present in PMNM

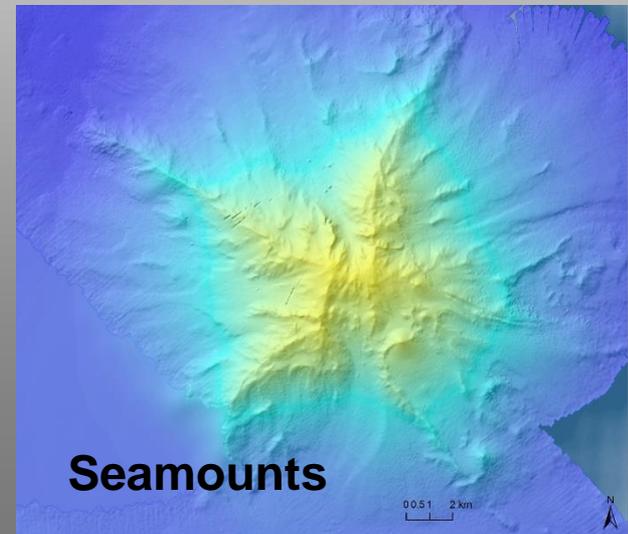
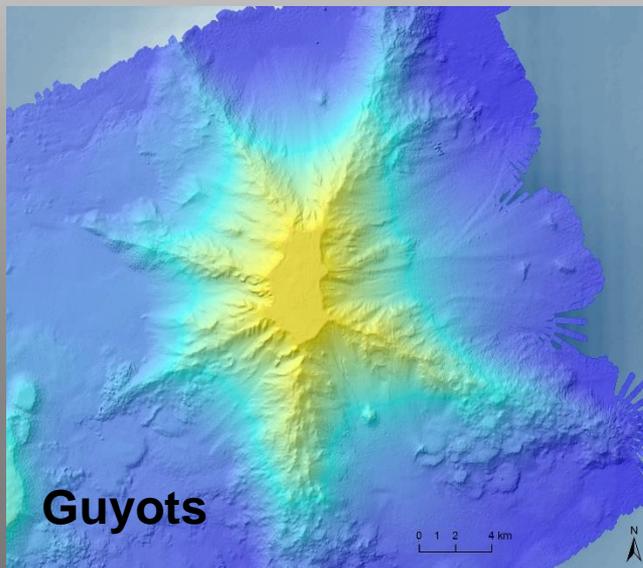
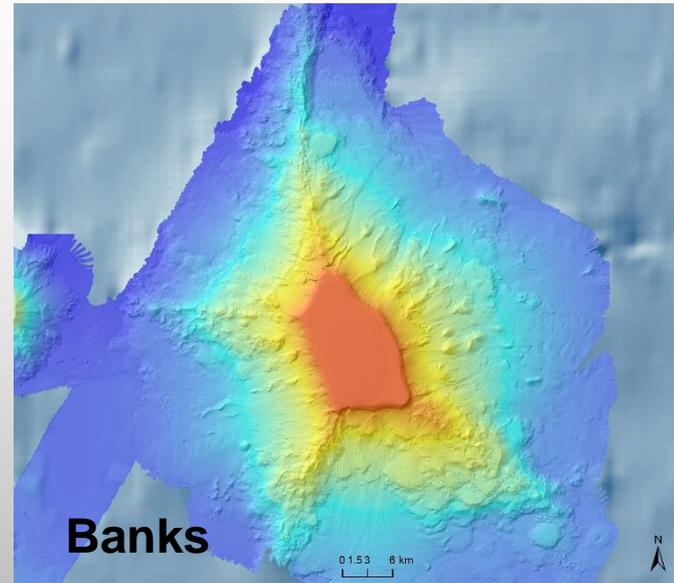
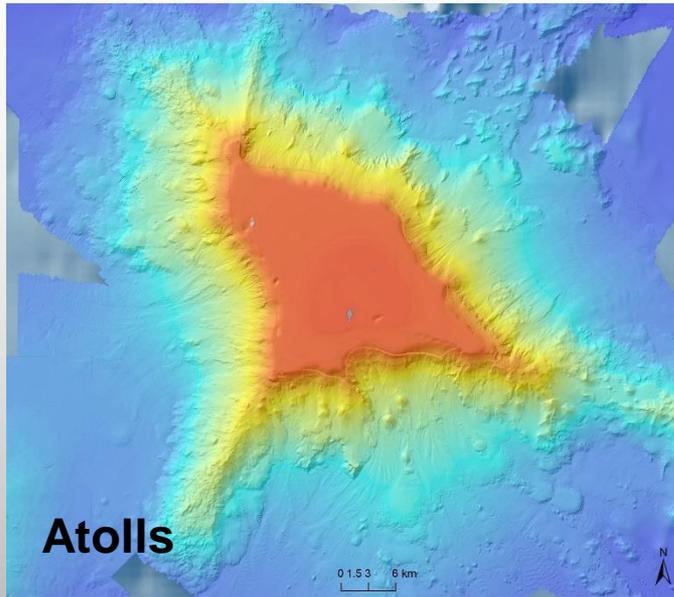


Atolls and Banks Have Multiple Drowned Reef Terraces

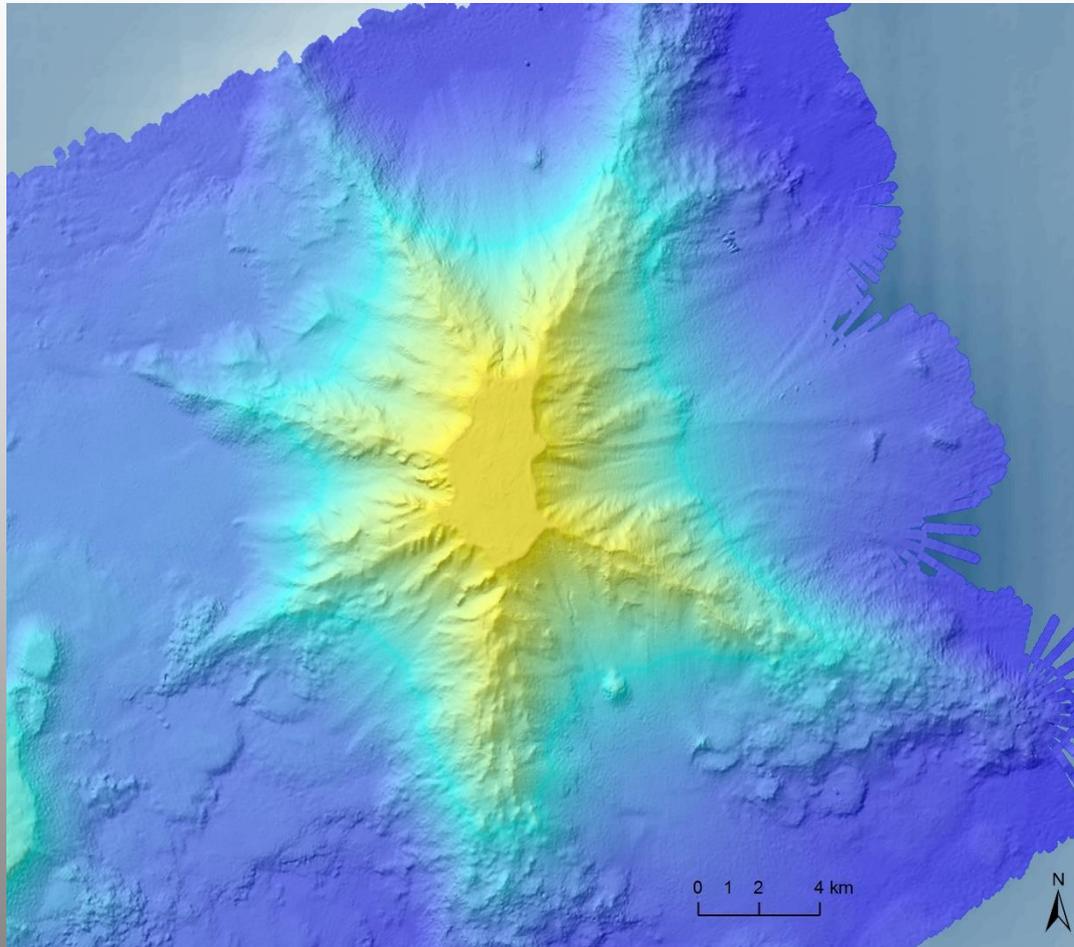


Turnif & Academician Berg Seamounts

Four Primary Types of Volcanic Features are present in PMNM

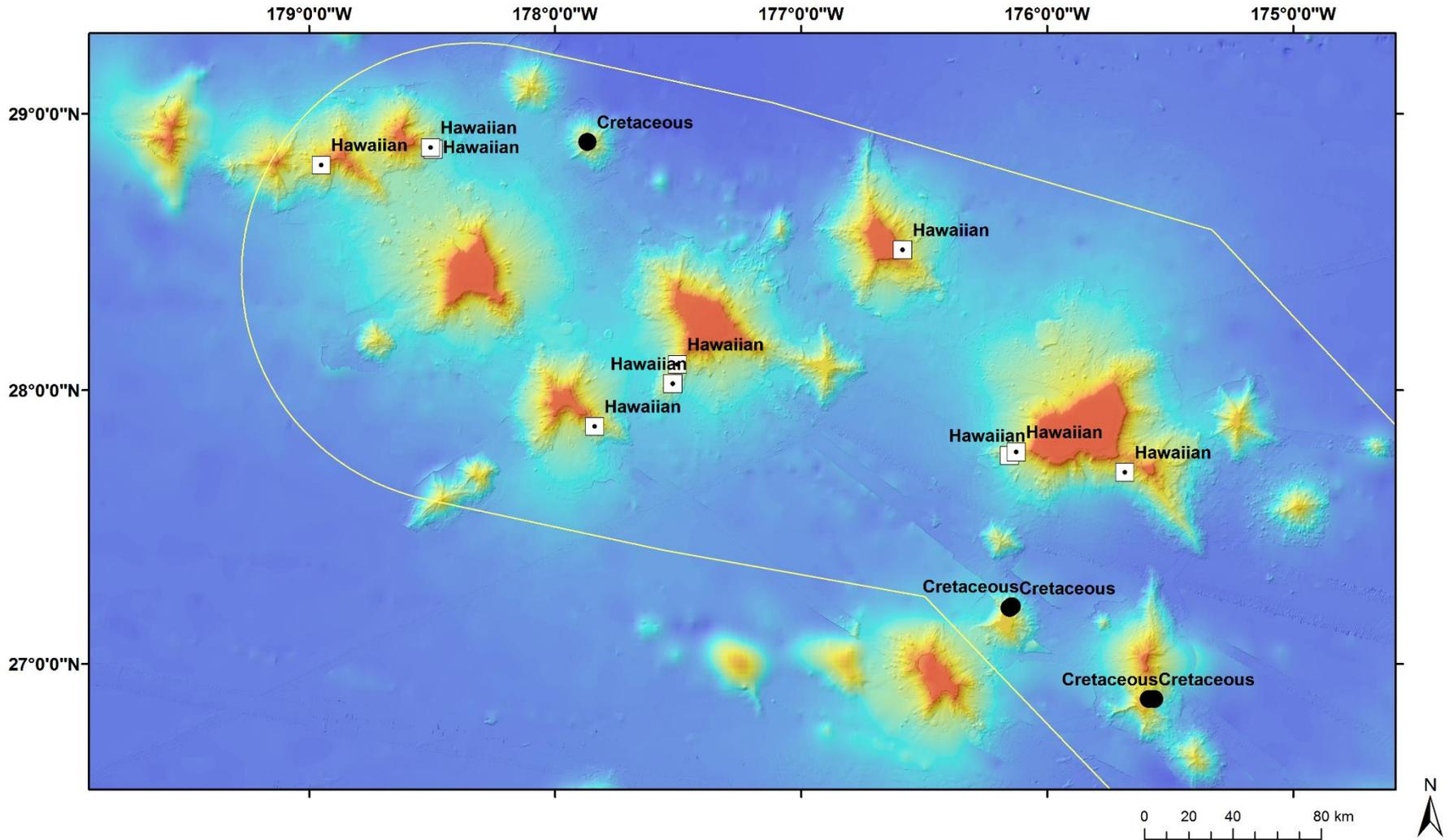


Guyots: When were these at the surface?

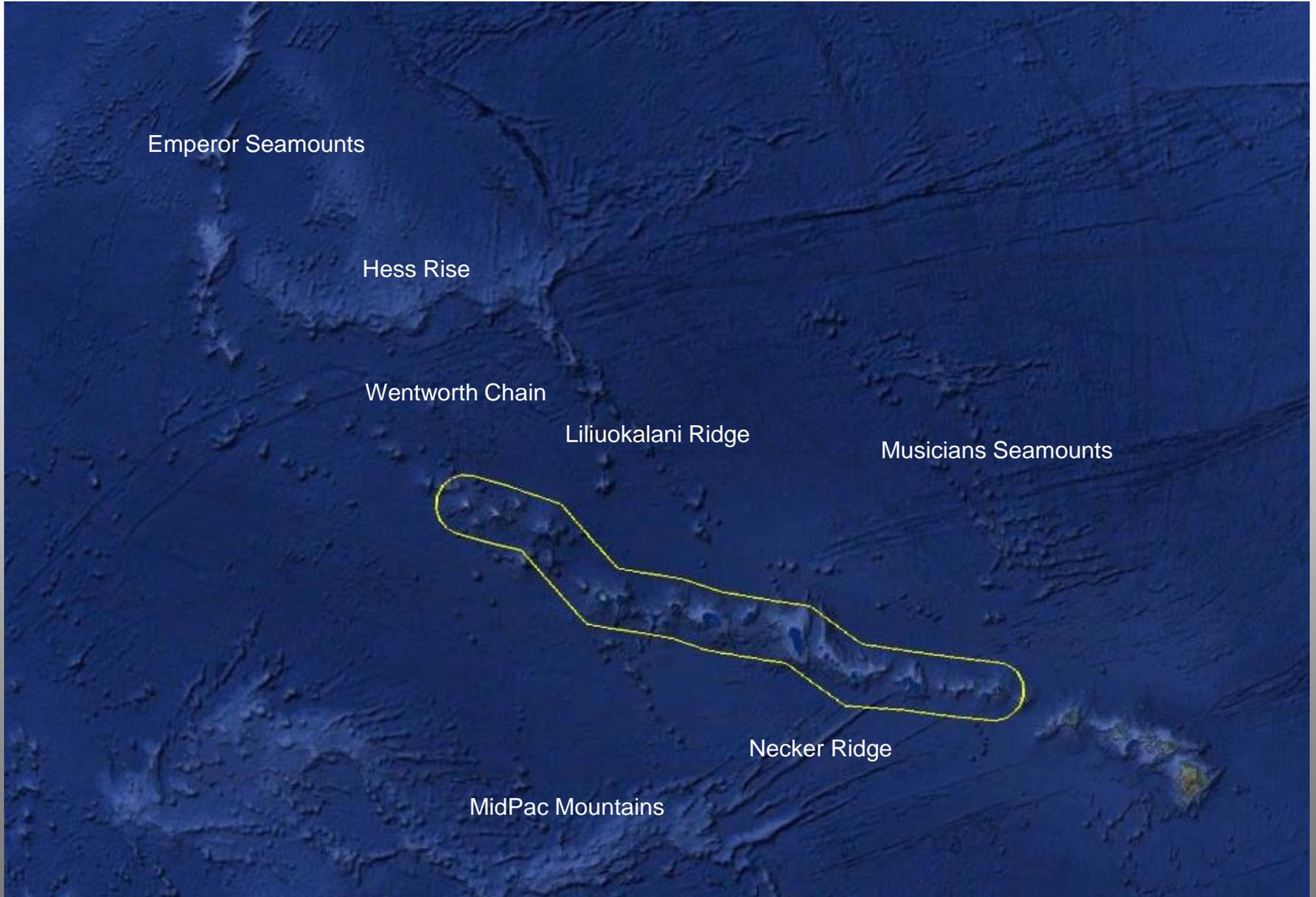


Unnamed guyot with summit at 1,500m

Summary of Dredge Data in the NW End of PMNM



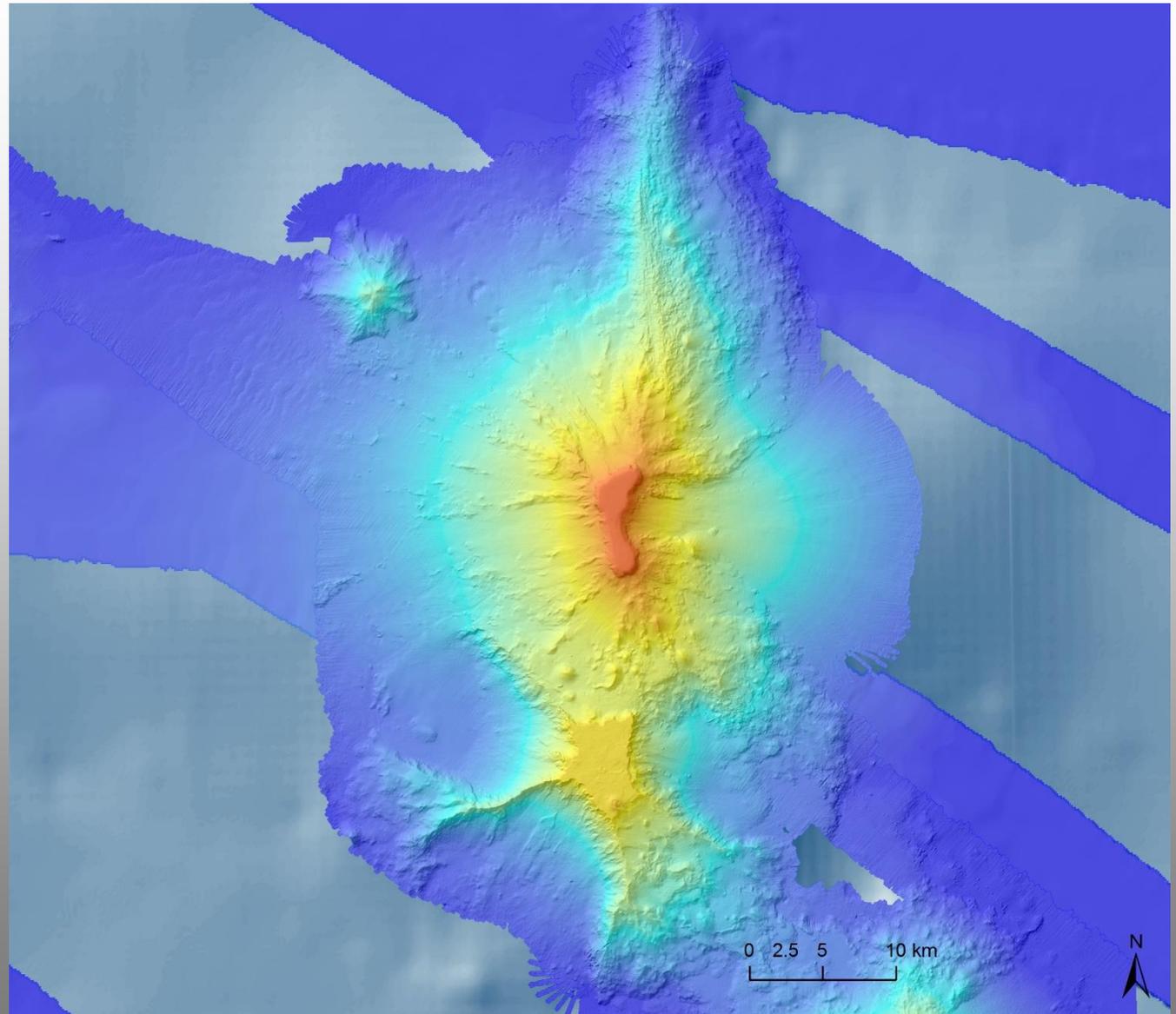
PMNM's Neighborhood



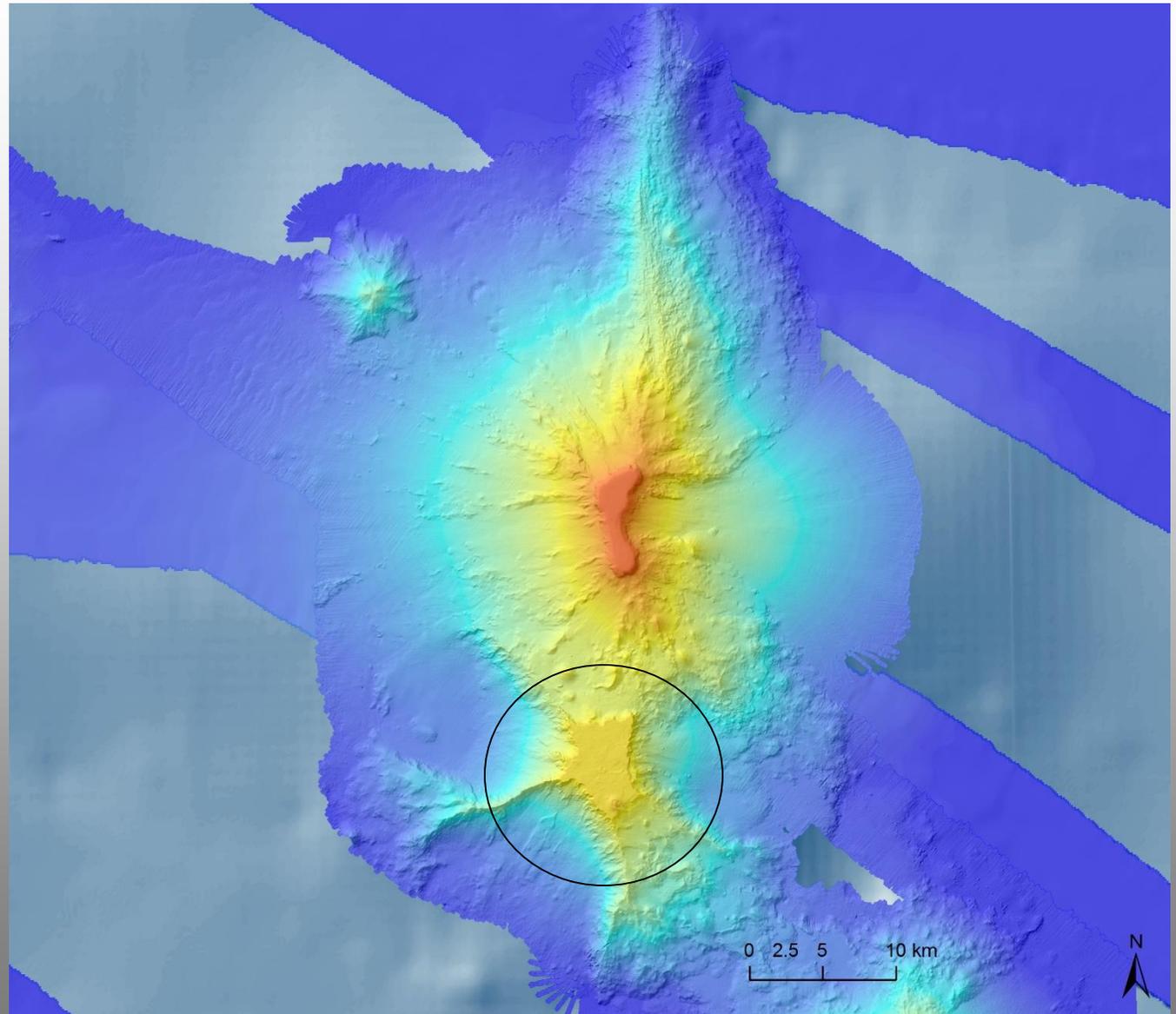
Animation of How the PMNM Neighborhood Formed



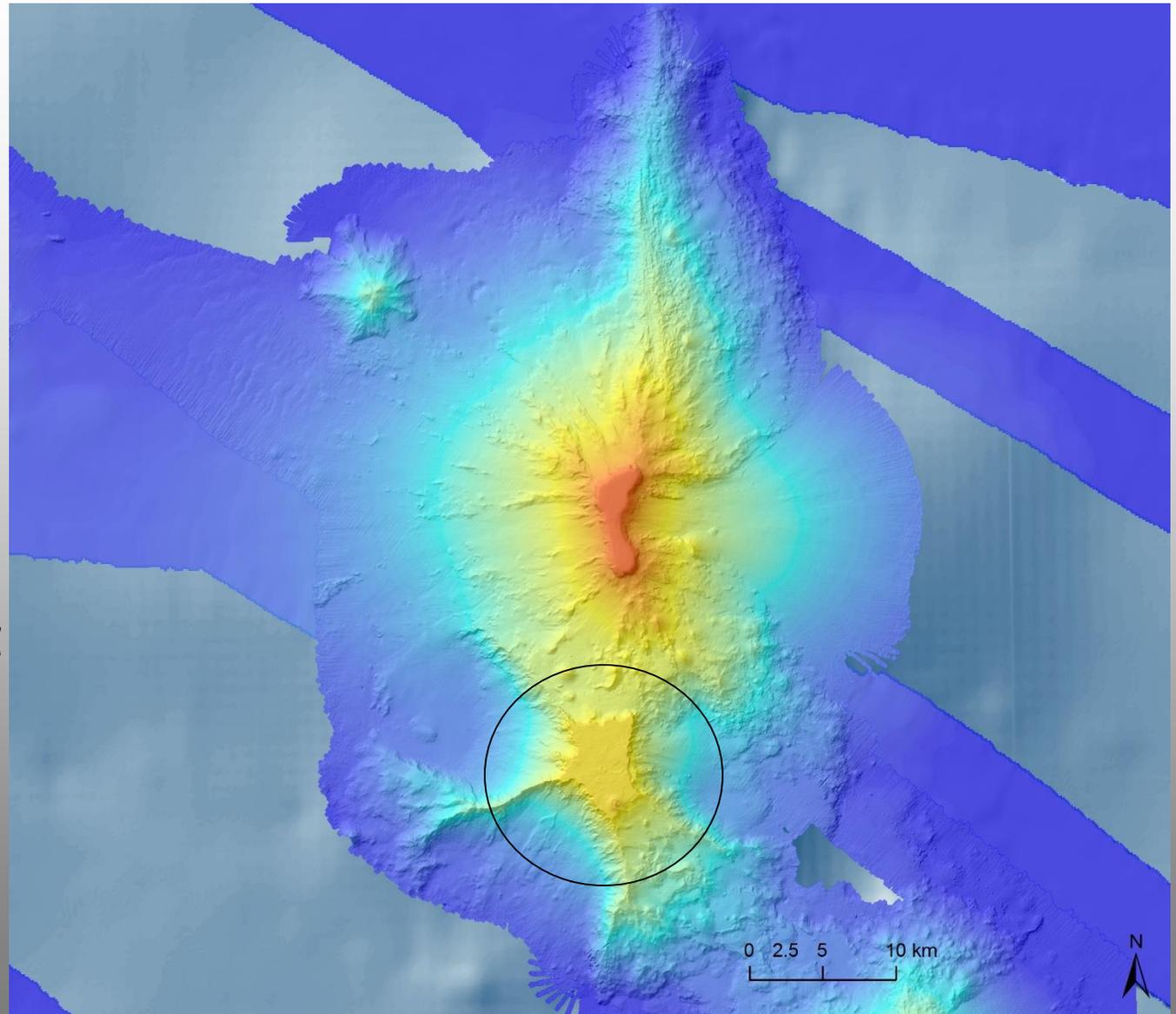
Bank 9: The Composite Seamount



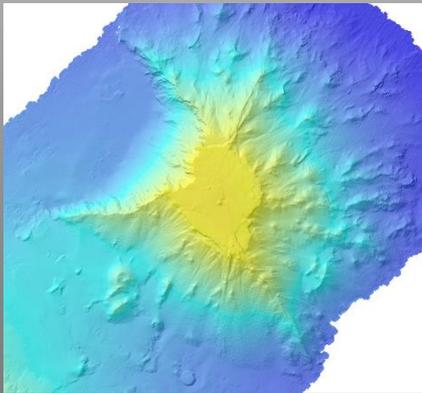
Bank 9: The Composite Seamont



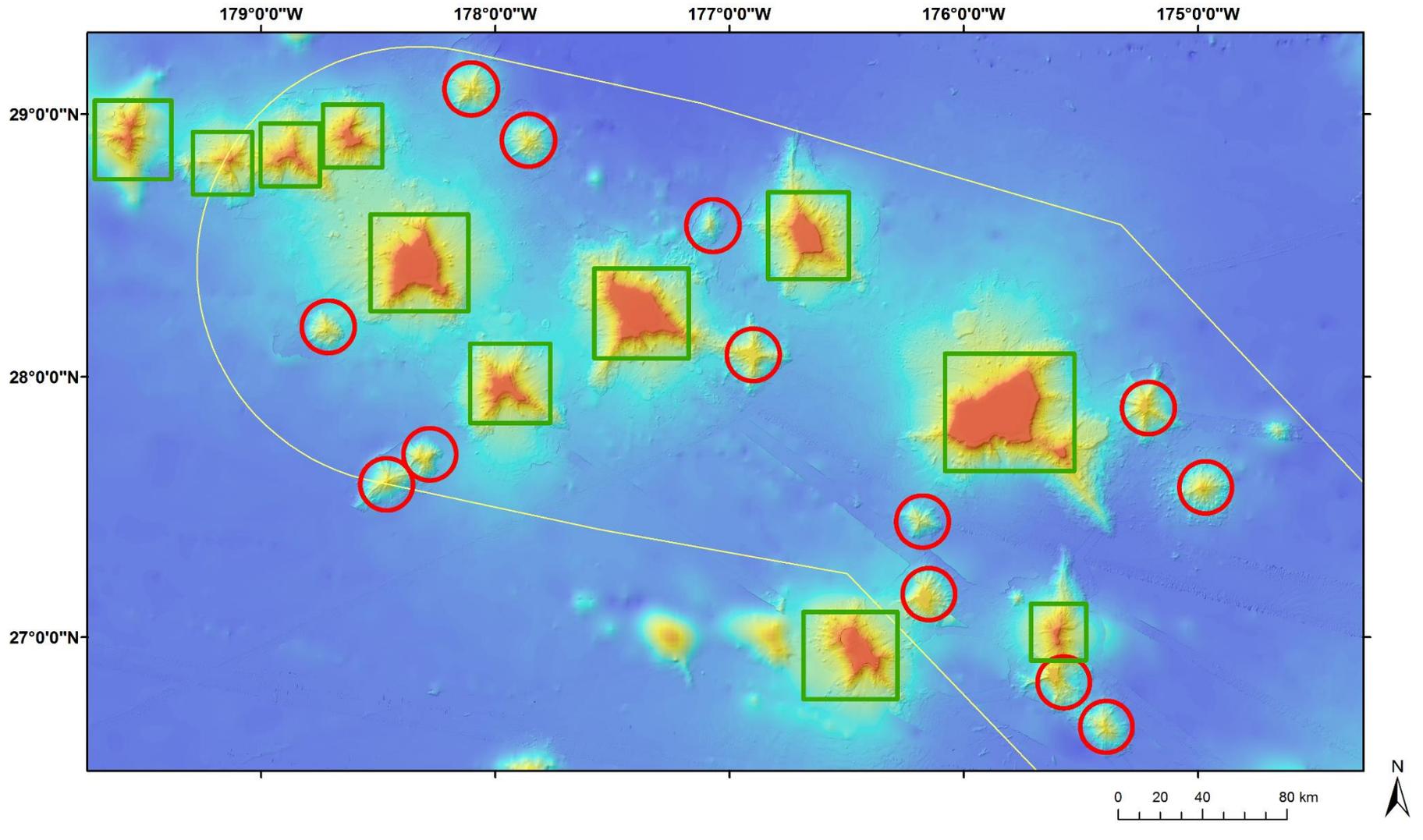
Bank 9: The Composite Seamont



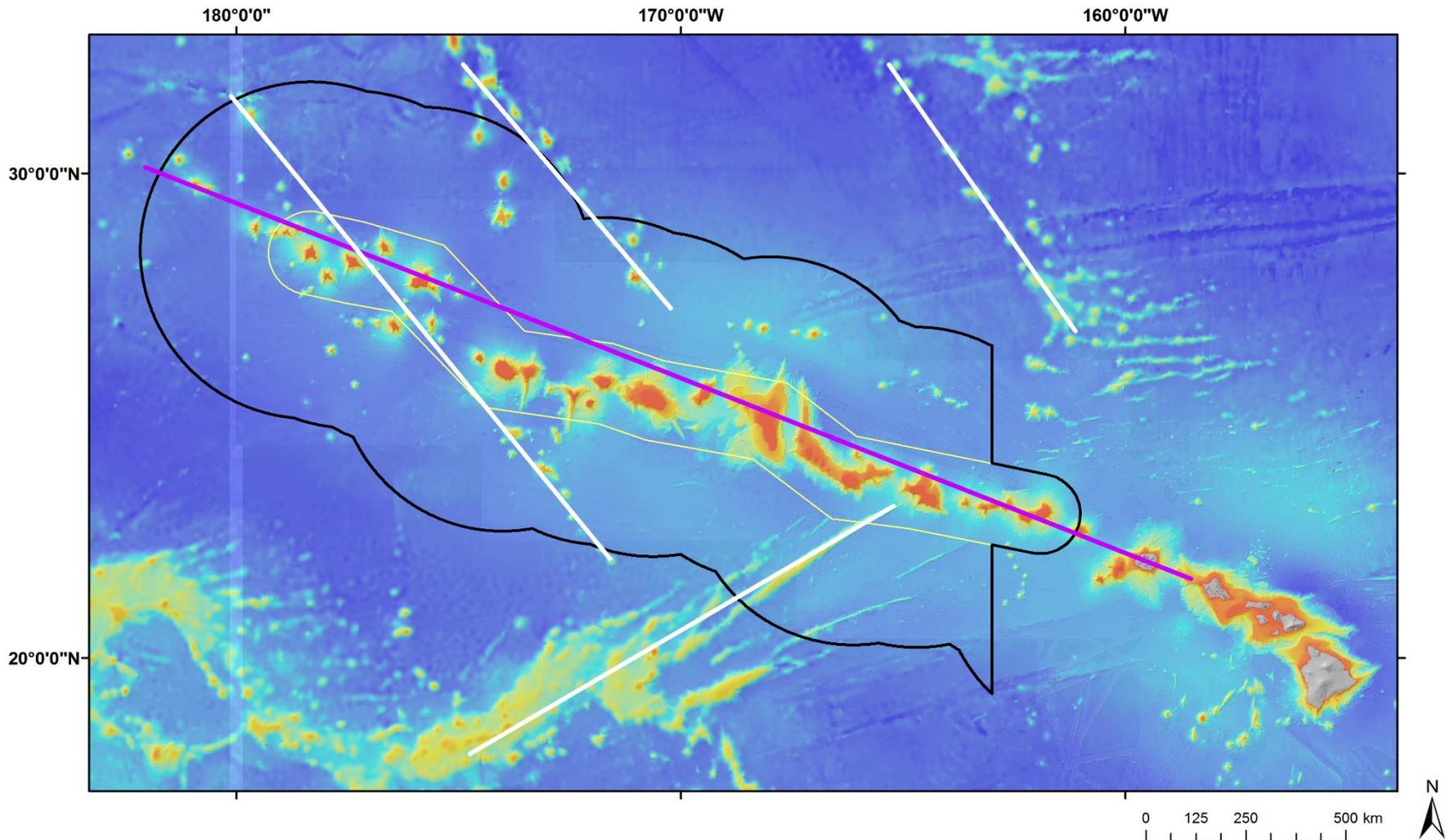
E. Salmon Guyot



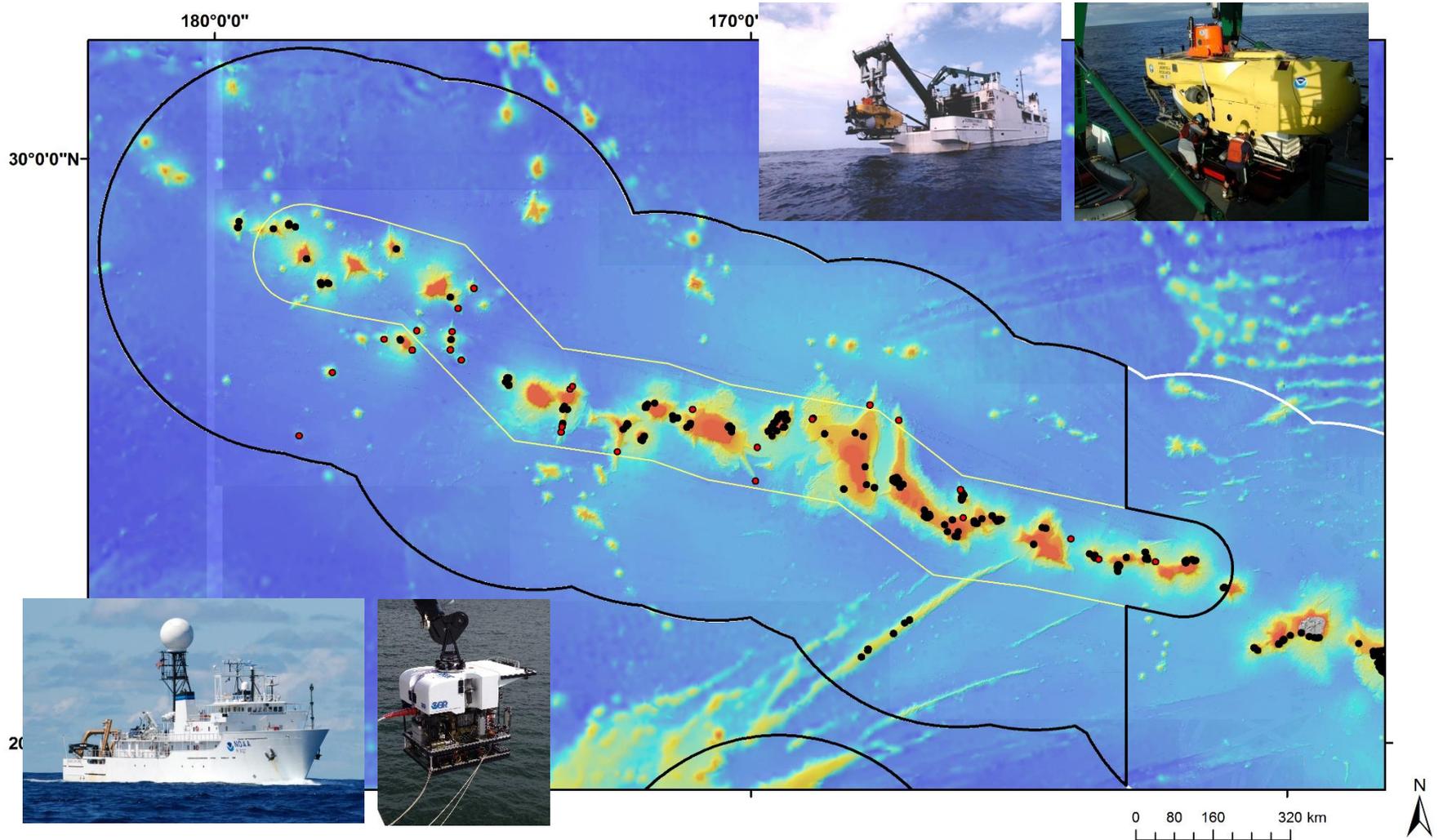
Hawaiian and Cretaceous Features in Northern PMNM



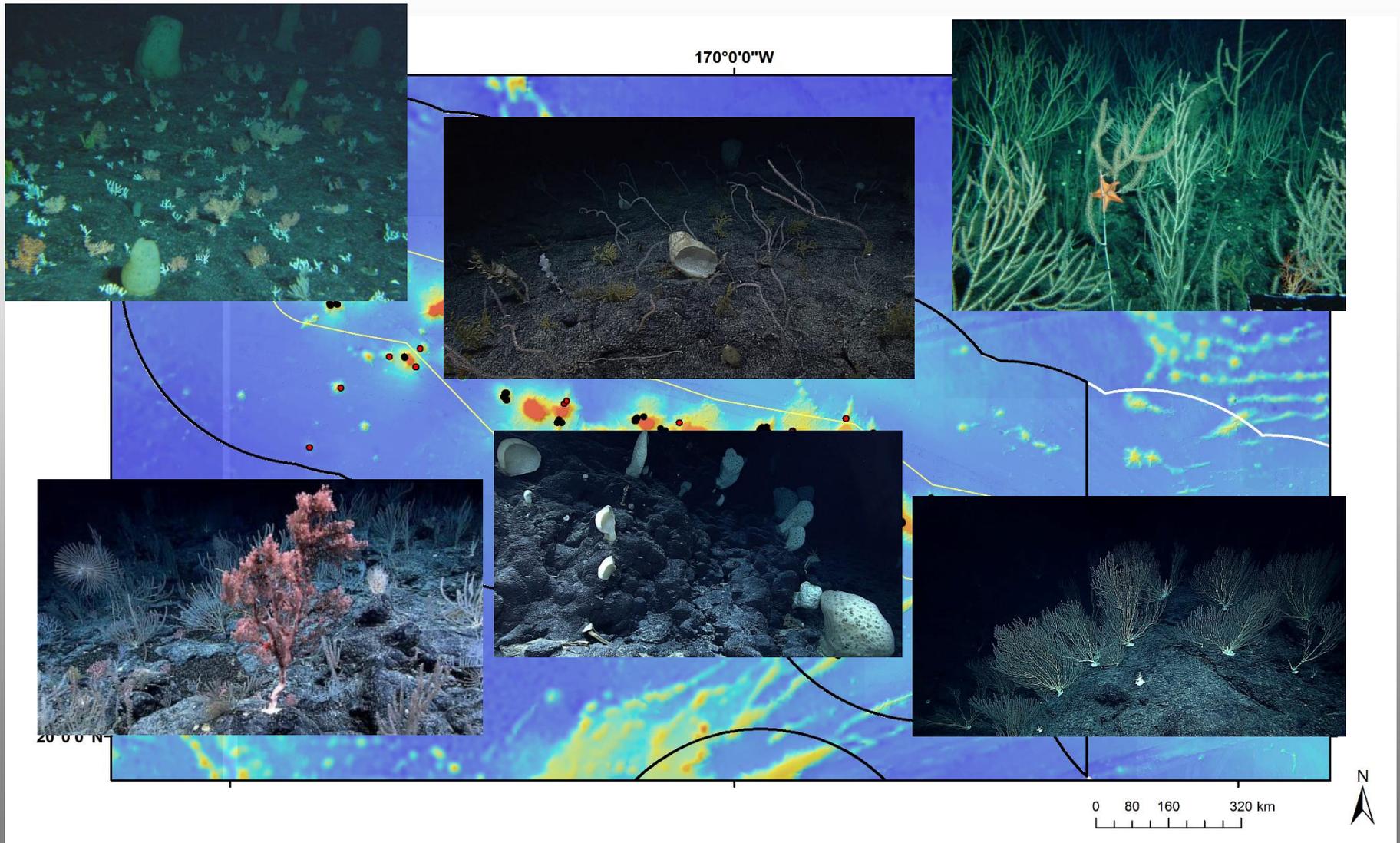
Hawaiian and Cretaceous Seamount Trails in PMNM



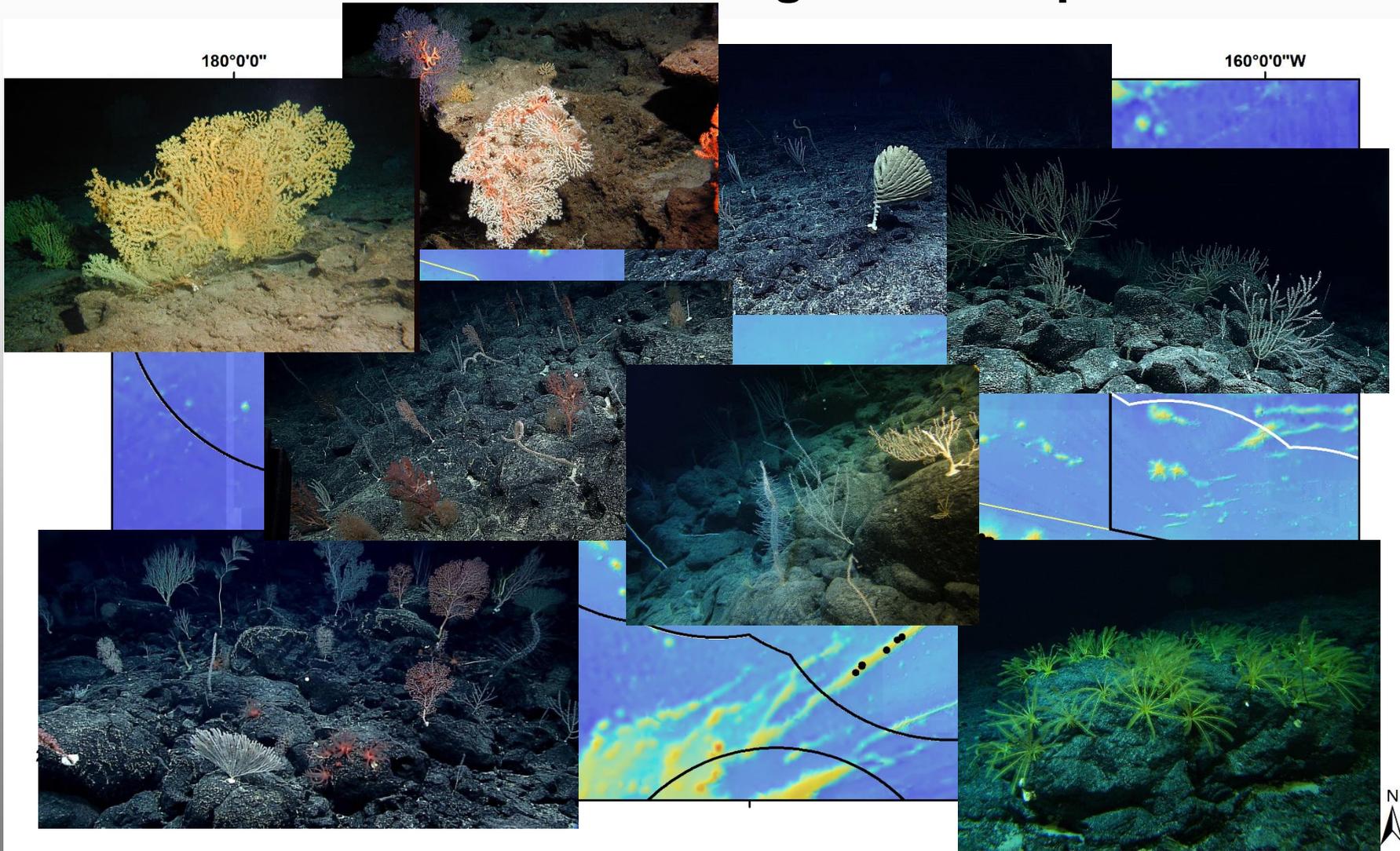
Submersible and ROV Dives in PMNM as of October 2016



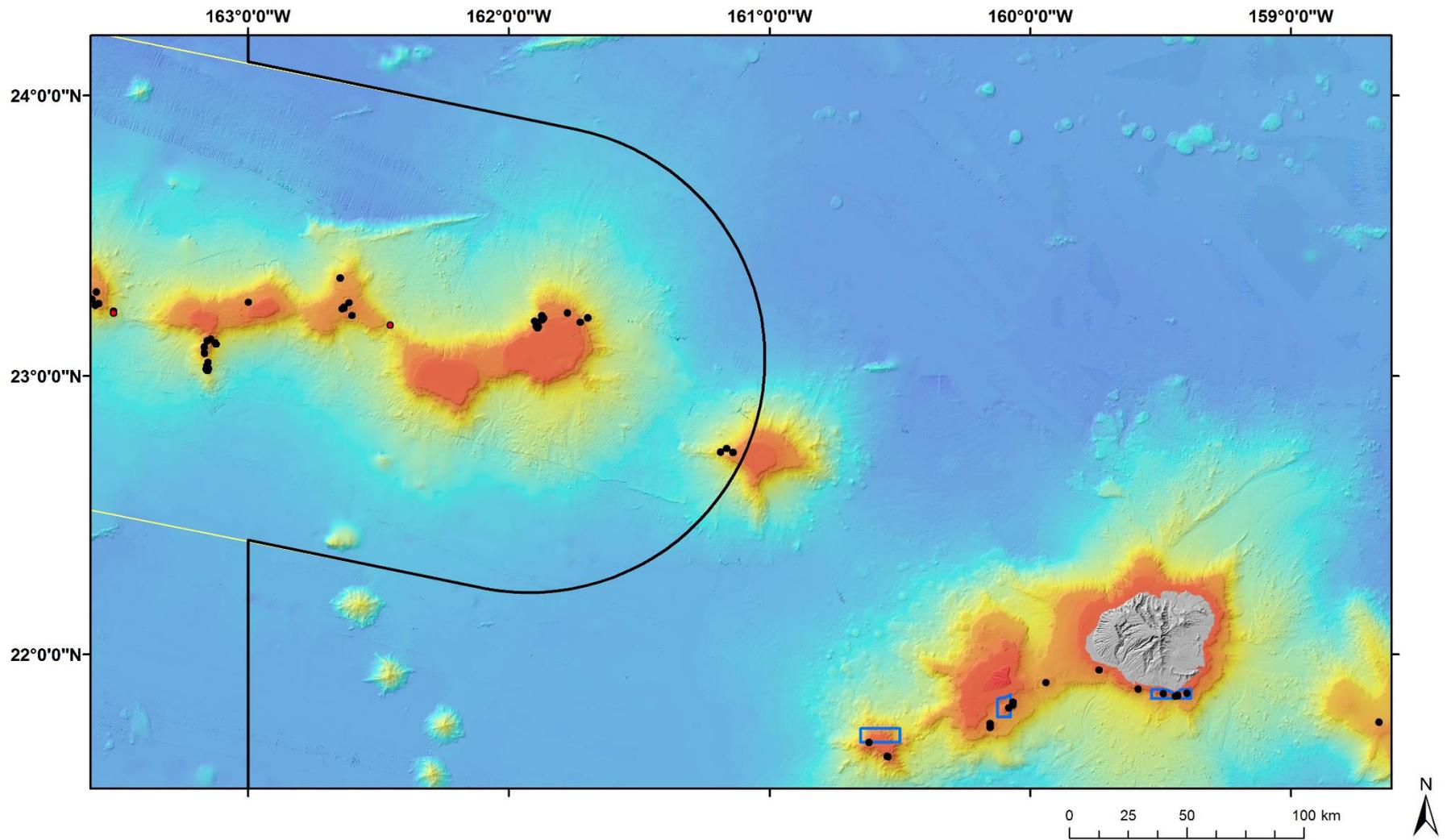
Submersible and ROV Findings in the old PMNM



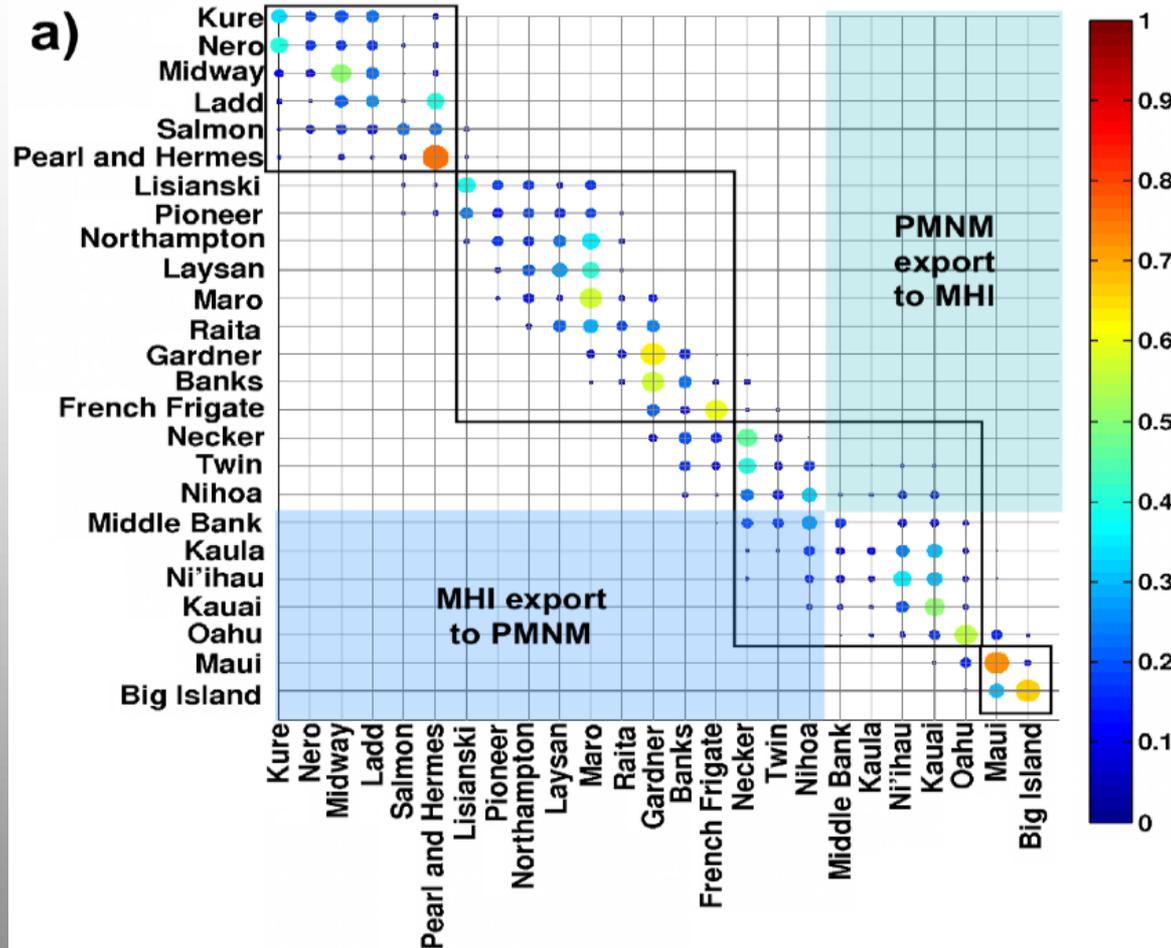
Submersible and ROV Findings in the Expansion Area



Middle Bank

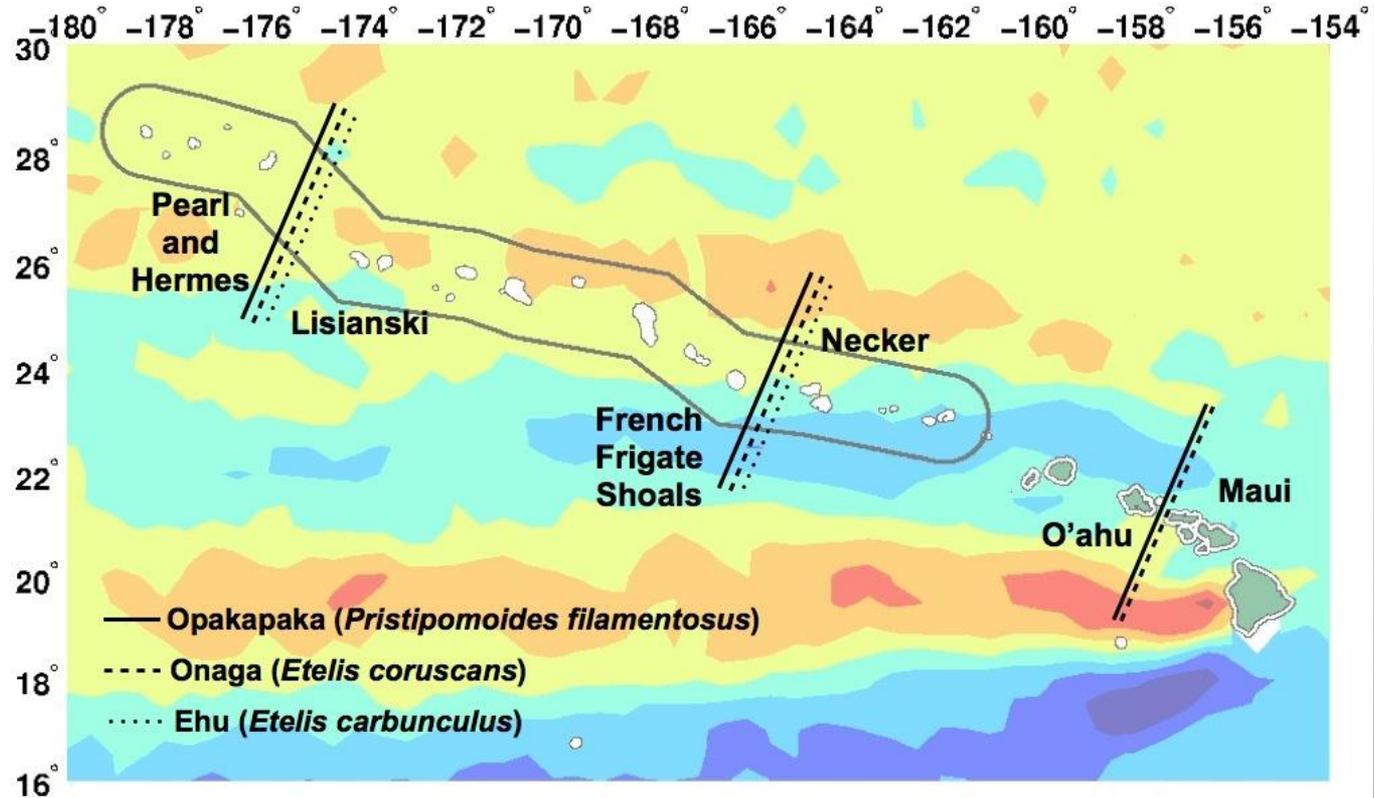


Bottomfish Connectivity Matrix



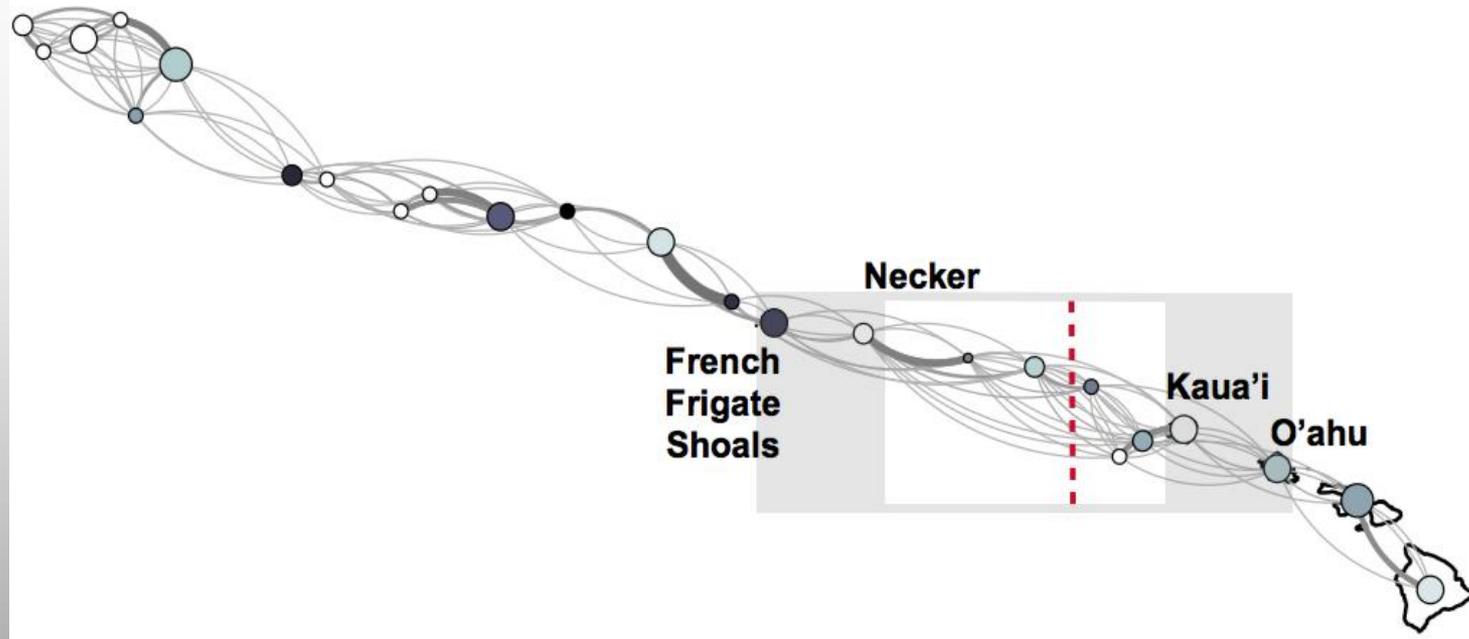
Connectivity matrix for *P. filamentosus* for a pelagic larval duration (PLD) of 30 days, based on 210 releases. The shaded areas represent transport among the Papahānaumokuākea Marine National Monument (PMNM) and the Main Hawaiian Islands (MHI). From Vaz, unpublished manuscript.

Bottomfish Self-sustaining Zones



Limits of the self-sustained zones. Most of the larvae released at each one of these zones are locally retained, based on 640 releases for each species (two pelagic larval durations and behaviors). From Vaz, unpublished manuscript.

Bottomfish Network Graph



*Network graph for *P. filamentosus*. Lines show the strength and direction of connections between sites. Direction of larval flow is given by the curvature, in the clockwise direction. Size and shade of nodes represents amount of local retention and betweenness centrality (BC), respectively. Darker shades indicate higher values of BC, i.e., most central nodes. The area bounded by the shaded box indicates the region containing the sites acting as ecological corridors between the Main Hawaiian Islands (MHI) and the Papahānaumokuākea Marine National Monument (PMNM). The management division between the MHI and PMNM is illustrated by the red dotted line. This graph was based on 210 releases, considered a pelagic larval duration of 30 days. From Vaz, unpublished manuscript.*

Middle Bank

