New GEOTRACES or GEOTRACES relevant scientific result

- Nutrient-like profiles of Ni in the Gulf of México resemble those from the Atlantic Ocean, but they showed high spatial variability within the first 1000 m, which was associated with the impact of mesoscale eddies (Félix-Bermúdez et al., 2023).

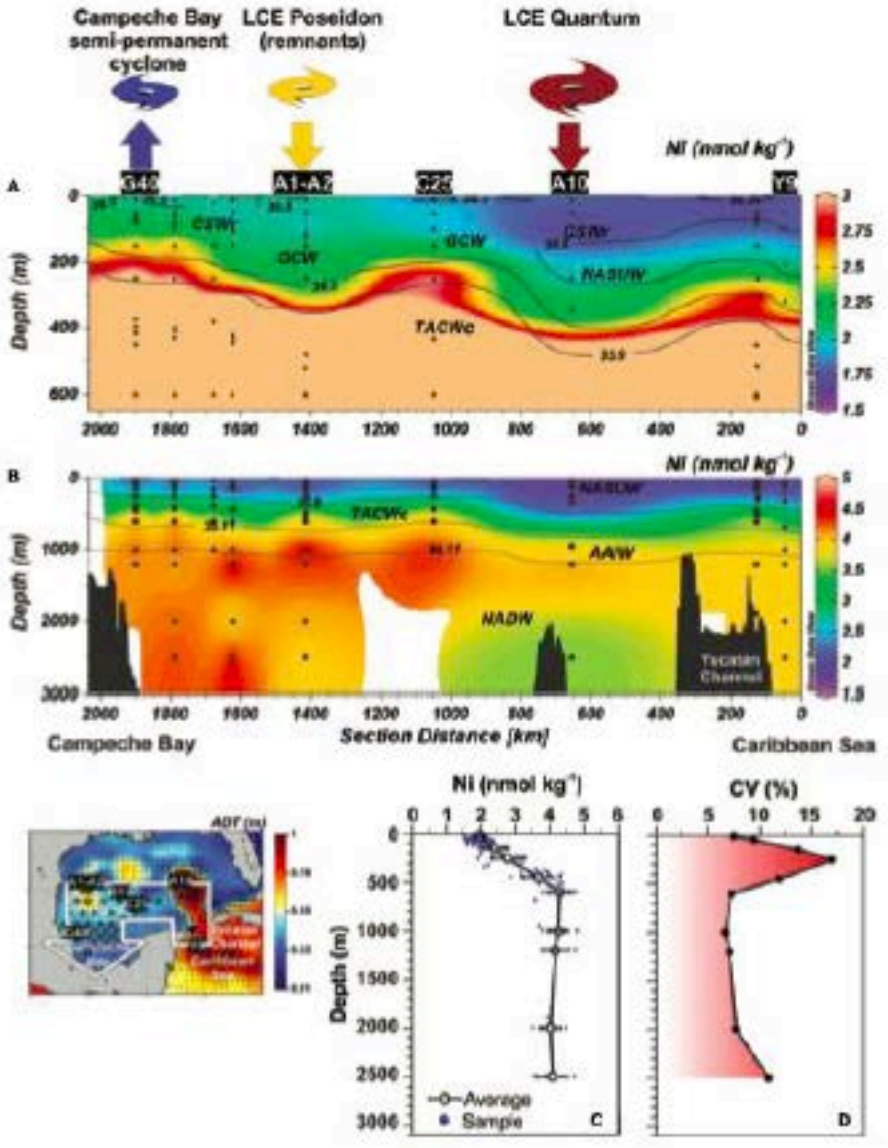

FIGURE 4
Sectional distribution of dissolved Ni along a transect that begins in the Caribbean Sea and ends in the Gulf of Mexico in the Campeche Bay area during the XIXIMI-6 cruise: (A) from 0 to 600 m depth and (B) from 0 to 3500 m depth. (C) Average vertical profile (± standard error) and (D) coefficient of variation (CV) of dissolved Ni for depths 10, 50, 150, 250, 450, 500, 1000, 1200, 2000, and 2500 m. The average profile was constructed using the dissolved Ni concentrations measured in the 22 stations sampled during the XIXIMI-6 cruise. The locations of the sampling stations marked in (A) are shown on the map. The big white arrow shown on the map indicates the direction and extent of the transect. To highlight the spatial differences in the Ni concentration in both shallow and deep waters, the range of Ni concentrations represented by the color scale is different for (A, B). The black solid contours in (A, B) indicate the isohaline boundaries of water masses based on the classification proposed by Pontes et al. (2018). LCE, Loop Current eddy; ADT, absolute dynamic topography; CV, coefficient of variation; CSWr, Caribbean Surface Water remnant; GCW, Gulf Common Water; NASUW, North Atlantic Subtropical Underwater; TACWc, Tropical Atlantic Central Water core; AAIW, Antarctic Intermediate Water; and NADW, North Atlantic Deep Water.

New GEOTRACES or GEOTRACES-relevant publications (published or in press)

- Amezcua, F., Ruelas-Inzunza, J., Coiraton, C., Spanopoulos-Zarco, P., Páez-Osuna, F., 2022. A Global Review of Cadmium, Mercury, and Selenium in Sharks: Geographical Patterns, Baseline Levels and Human Health Implications. Reviews of Environmental Contamination and Toxicology 260, 4. https://doi.org/10.1007/s44169-021-00006-2
- Celis-Hernández, O., Ontiveros-Cuadras, J.F., Ward, R.D., Girón-García, M.P., Pérez-Ceballos, R.Y., Canales-Delgadillo, J.C., Acevedo-Granados, I.V., Santiago-Pérez, S., Armstrong-Altrin, J.S., Merino-Ibarra, M., 2022. Biogeochemical behaviour of cadmium in sediments and potential biological impact on mangroves under anthropogenic influence: A baseline survey from a protected nature reserve. Marine Pollution Bulletin, 185 (A), 114260. https://doi.org/10.1016/j.marpolbul.2022.114260
- De La Peña-Lastra, S., Pérez-Alberti, A., Ferreira, T.O. Huerta-Díaz, M.A., Otero, S.L., 2022. Global deposition of potentially toxic metals via faecal material in seabird colonies. Scientific Reports 12, 22392. https://doi.org/10.1038/s41598-022-26905-5
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- Hakspiel-Segura C., Delgadillo Hinojosa F., Lares Reyes M. L., Torres-Delgado E. V., Félix-Bermúdez A., Segovia-Zavala J. A., Camacho-Ibar V., Muñoz-Barbosa A., Millán-Núñez E., 2022. Nitrogen limitation prevents the effects of iron or dust additions on biological carbon fixation in the Gulf of California. Journal of Experimental Marine Biology and Ecology. https://doi.org/10.1016/j.jembe.2022.151866
- Martínez-Ayala, J.C., Galván-Magaña, F., Tripp-Valdez, A., Marmolejo-Rodríguez, A.J., Piñón-Gimate, A., Huerta-Diaz, M.A., Sánchez-González, A., 2022. Heavy metal concentrations in the Pacific sharpnose shark Rhizoprionodon longurio from the Santa Rosalia mining zone, Baja California Sur, Mexico. Marine Pollution Bulletin, 182, 114018. https://doi.org/10.1016/j.marpolbul.2022.114018
- Mejia-Piña, K.G., Valdivieso-Ojeda, J.A., Huerta-Diaz, M.A., Chavez-Jimenez, M. Xosé Luis Otero, X.L., Fernández-Díaz, V.Z., Arreguín-Rodríguez, G.J., 2023. Geochemical footprint of dredged material discharges and sediment health status in Todos Santos Bay, Mexico. Regional Studies in Marine Science, 62, 102962. https://doi.org/10.1016/j.rsma.2023.102962
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Gulf of Mexico) from 210Pb sediment chronologies. Marine Pollution Bulletin, 181, 113839. https://doi.org/10.1016/j.marpolbul.2022.113839

- Vega-Barba, C., Páez-Osuna, F., Galván-Magaña, F., Baró-Camarasa, I., Aguilar-Palomino, B., Galván-Piña, V.H., Marmolejo-Rodríguez, A.J., 2022. Trace elements in the silky shark Carcharhinus falciformis in the Central Pacific Mexican Shelf. Marine Pollution Bulletin, 185(A), 114263. https://doi.org/10.1016/j.marpolbul.2022.114263

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- Gutiérrez, R. A. (2022). Variación espacial y estacional del manganeso disuelto en la Bahía Todos Santos (verano 2008 – primavera 2009). MS thesis, UABC (Universidad Autónoma de Baja California)

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