ATLAS OF CARBONATE CONTOURITES

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PROJECT OBJECTIVES

- Provide a database of global carbonate contourite depositional systems.
- Analyze the geometry and dimensions of the various contourite depositional systems.

PROJECT RATIONALE

120 major contourite areas have been recognized worldwide (Rebesco et al., 2014). Recognition of these contourite systems has influenced not only paleoclimatology and paleoceanography studies but also geological hazard assessment and hydrocarbon exploration. In carbonate environments, platforms are substantial barriers in the way of ocean currents; hence drifts are a frequent component of carbonate platform depositional systems. In addition, sizable carbonate contourites have been recognized in various settings (such as continental platforms and seaways) and ages (Eberli and Betzler, 2019). We aim to provide a catalog of global carbonate contourites depositional systems based on existing studies presented in a user-friendly Google Maps format.

APPROACH

Each carbonate contourite depositional system location will be pinned on Google Maps with specific coordinates. For each location, a description of the carbonate contourite system and a link to the scientific articles will be provided. Users can choose to view information on either the Miocene and/or Cretaceous carbonate contourites depositional systems.

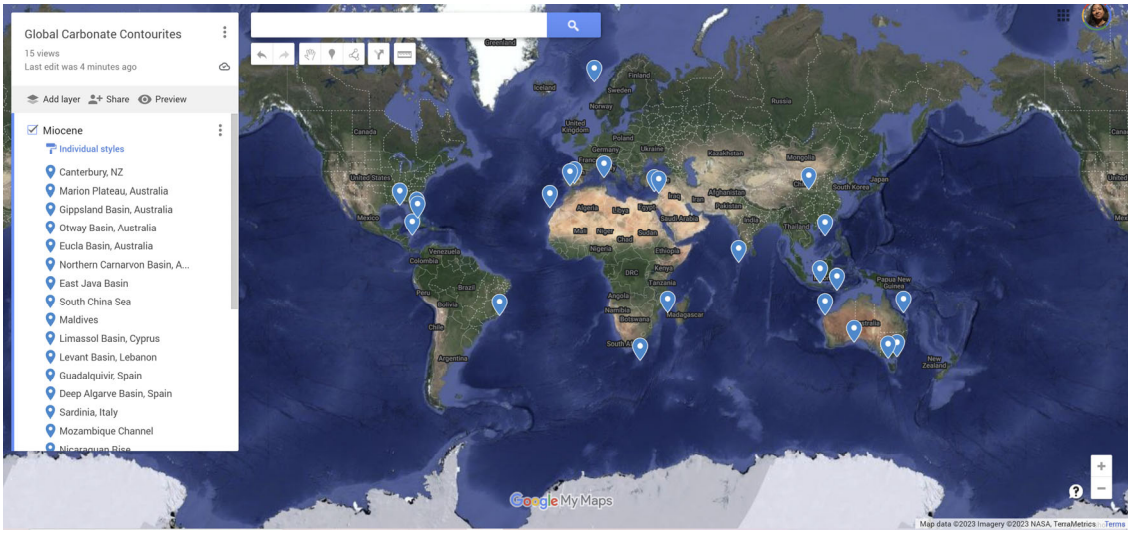

Figure 1: Google Maps showing the location of Miocene carbonate platforms with existing contourites studies.

SIGNIFICANCE

The carbonate contourite database will provide easy access to information on the available literature, geometry, and dimensions of carbonate contourites around the world to aid exploration involving carbonate depositional systems.

REFERENCES

Eberli, G.P. and Betzler, C., 2019. Characteristics of modern carbonate contourite drifts. Sedimentology 66, 1163–1191. https://doi.org/10.1111/sed.12584

Rebesco, M., Hernández-Molina, F.J., van Rooij, D. and Wahlin, A., 2014. Contourites and associated sediments controlled by deep-water circulation processes: State of the art and future considerations 352, 111–154.