

Eastern Pacific Invertebrate Communities of the Cenozoic

Goal: Digitize 1.6 million marine invertebrate fossils (i.e., crustaceans, bivalves, echinoderms, and gastropods) from the Cenozoic of the Pacific Coast



Eon	Era		Period	Epoch Start Date (mya)	
Phanerozoic	Cenozoic	Quaternary		Holocene	0.01
				Pleistocene	1.64
		Tertiary	Neogene	Pliocene	5.2
				Miocene	23.3
			Paleogene	Oligocene	35.4
				Eocene	56.5
				Paleocene	65



Collaborators



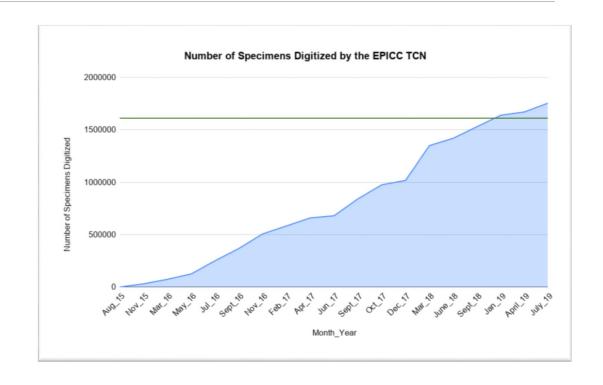
Collaborators





Progress

- > Specimens digitized: 1.75/1.61 million (108% of goal)
- >579.6k available in iDigBio (35%)
- > Specimens photographed: 123.3k/82.8k (148%)
- Localities georeferenced: 30.4k/32.6k (93%)



Virtual Field Experience (VFE)

1) VFE#1: Central California (Kettleman Hills)

2) VFE#2: Central CA Coast

3) In progress: Terraces and Oregon Coast





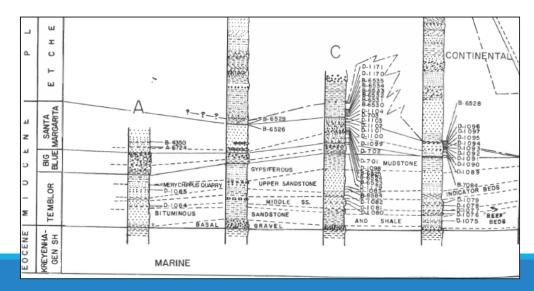






Lessons Learned

- >1) Paleontological Data ≠ Biological Data
 - ➤ Georeferencing isn't just a point on a map (Geology, chronostratigraphy, lithology, paleogeography, etc.)
 - ➤ Need for precise or absolute date field (add field to DarwinCore?)



Lessons Learned

- ≥2) Effective Communication is Key
 - Important to get an understanding of TCN partners (strengths and weaknesses)
 - ➤ Need to be prepared for the loss of a partner, how to deal with those that fall off the radar
- ➤ 3) The public we serve doesn't always understand what we do
 - ➤ Governor of Alaska proposed all state funding for research to be cut (\$130 million)
 - ➤ U of Alaska Museum faced 100% budget cut
 - Difficult to convey to public why research is important (but people hear numbers)





Society of Vertebrate Paleontology

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July 29, 2019

Board of Regents University of Alaska c/o John Davies, Chair PO Box 81781 Fairbanks, AK 99708 jndavies@alaska.edu

Dear Regent Davies.

On behalf of the Society of Vertebrate Paleontology, we are writing to express concern about drastic cuts to the research budget of the University of Alaska Museum of the North. We understand that the governor of Alaska has proposed that all state funding for research be cut, including all funds to the Museum except for admissions and research overhead. We understand that you must make unprecedented decisions about what to keep, so we are bringing to your attention legal, scientific, and ethical issues associated with the research collections at the Museum about which you may be unaware.

Current and Future Research

- ➤ 1) Functional diversity and food web analysis of invertebrate paleocommunities through time at different latitudes
- ≥2) Sampling biases of invertebrate vs. vertebrate at EPICC localities
- > 3) Phylogenetic analyses of extant species and their extinct relatives
- ➤ 4) Biogeographic history of Alaskan terranes
- ≥5) Cenozoic Formations of CA









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- ➤ iDigBio staff and trainings
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