

ARIP 2017



AGM Institute



Diversity Initiative for the Southern California Ocean

Research Plan

From field collection to molecular barcode reference library in two weeks

- Field collection of primary biodiversity specimens
- Marine invertebrate taxonomy and identification
- DNA extraction
- DNA amplification of COI (barcode) gene
- Cleaning of amplified DNA for sequencing
- Evaluation and editing of DNA sequences
- Register barcode sequences in Barcode of Life (BOLD) library

Learning Objectives

- **Biology**
 - Biodiversity science
 - Marine field collecting
 - Molecular genetic biodiversity quantification
- **Research Skills**
 - Science communication
 - Field and lab specimen processing techniques
 - Core molecular biology techniques
 - Direct interaction with international genetic repositories
- **Life Skills**
 - Confidence and self-awareness training
 - Exploration of university opportunities in the U.S.
 - Experiencing U.S. culture around leading universities

ARIP 2017 Program Overview

<http://research.nhm.org/disco/arip2017>

8	Mo 24 July	T: Visit La Brea Tar Pits Museum T: Visit Getty Museum T: Visit Farmers Market and The Grove
9	Tu 25 July	F: Intertidal collecting trip to San Pedro (sunrise 6a, tide -1.0 ft at 5:34) T: Beach time at Cabrillo Beach T: Visit Cabrillo Marine Aquarium (noon) G: Research presentation prep
10	We 26 July	R: Final sequence editing and specimen photo cleanup G: Research presentation rehearsal
11	Th 27 July	R: Molecular sequence posting to Barcode of Life Database G: Getting into U.S. colleges and college life G: Research presentation revisions
12	Fr 28 July	G: Research presentation prep G: Final research presentations G: Closing ceremonies and awards G: Farewell dinner
13	Sa 29 July	Departures

Lab Introductions

- **Regina Wetzer** — Associate Curator & MBC Director
- **Dean Pentcheff** — DISCO Program Coordinator
- **Kathy Omura** — Collections Manager, MBC
- **Adam Wall** — Collections Manager, Crustacea
- **Jenessa Wall** — Assistant Collections Manager, MBC

Policies & Procedures

- Professional working environment
- Intellectual property
- Interacting with the public
- Lab etiquette
- Bathrooms and doors

Natural History Museum of Los Angeles County

- Research & Collections
 - Ornithology
 - Mammalogy
 - Dinosaur Institute
 - ...
 - Crustacea
 - Marine Biodiversity Center
 - *DISCO*
 - *UNRC*
- Finance
- Exhibits
- Operations
- Advancement
- Human Resources