

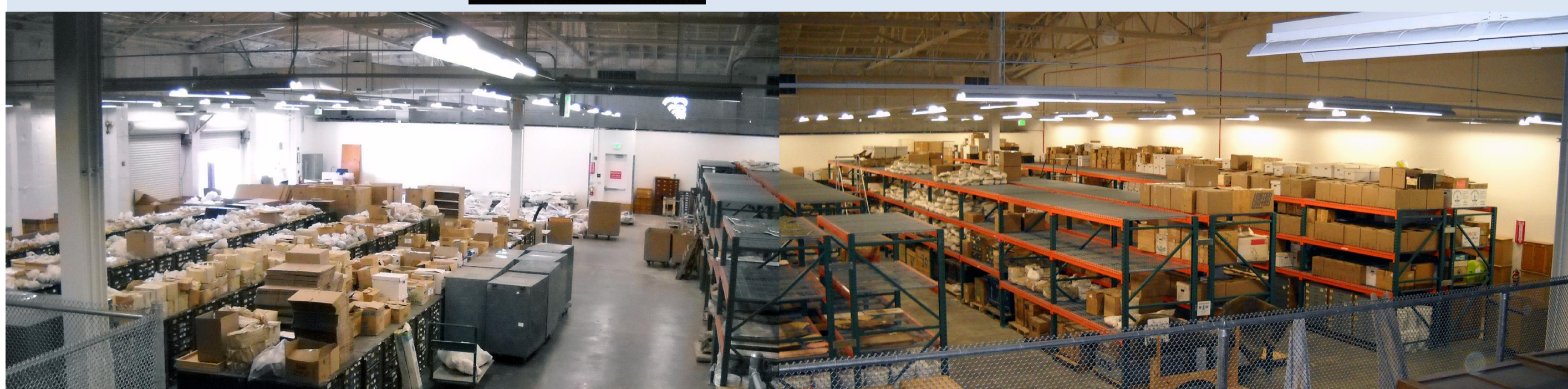
University of California Museum of Paleontology (UCMP)



UCMP
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UCMP Mollusk Collections

- 14,000+ cataloged recent lots; 46,000+ cataloged fossils
- All available online at: <http://ucmpdb.berkeley.edu/>
- Serving data via IPT to GBIF and iDigBio
- Approx. 1/4 of recent mollusk lots are cataloged: est. total 65,000+ lots containing 500,000+ specimens
- Strengths: marine and non-marine of eastern Pacific from Chile to AK and east to US continental divide
- Current digitization projects: 1) Eastern Pacific Invertebrate Communities of the Cenozoic (EPICC) for fossil mollusks; 2) Research project photographed 12,000 limpets



UCMP's secure, off-site collections facility

About UCMP

- Established 1921 with generous endowment from Annie Alexander
- Largest university fossil collection
- 40+ paleontologists (faculty, staff, & graduate students)
- Understanding Science and Understanding Evolution web resources draw 20 million visitors annually

Staffing and budget

- 1 full-time collections manager for fossil and modern invertebrates (Erica Clites)
- 1 part-time collections assistant (Lillian Pearson)
- 2 paid graduate student researchers each summer (grant-funded)
- 8 paid undergraduate students each year (grant-funded)
- 2 volunteers
- Funding from UCMP endowment, State of California and outside grants



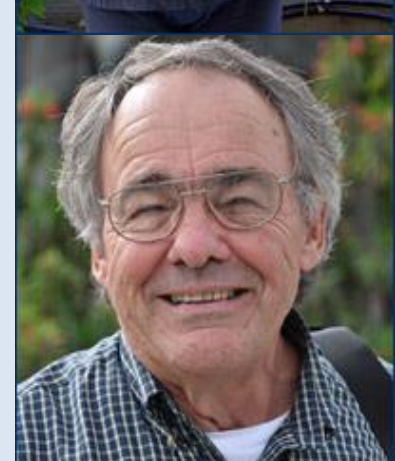
Some of staff, undergraduate students and volunteers who worked on the former USGS Menlo Park collection rehousing project (from left to right): Erica Clites, Lillian Pearson, Anne Zavala, Don Pecko, Gina Hwang and Kathy Zoehfeld



Some of staff, undergrad and grad students, volunteers working on EPICC project: Don Pecko, Erica Clites, Peter Kloess, Lillian Pearson, Katie Berlin

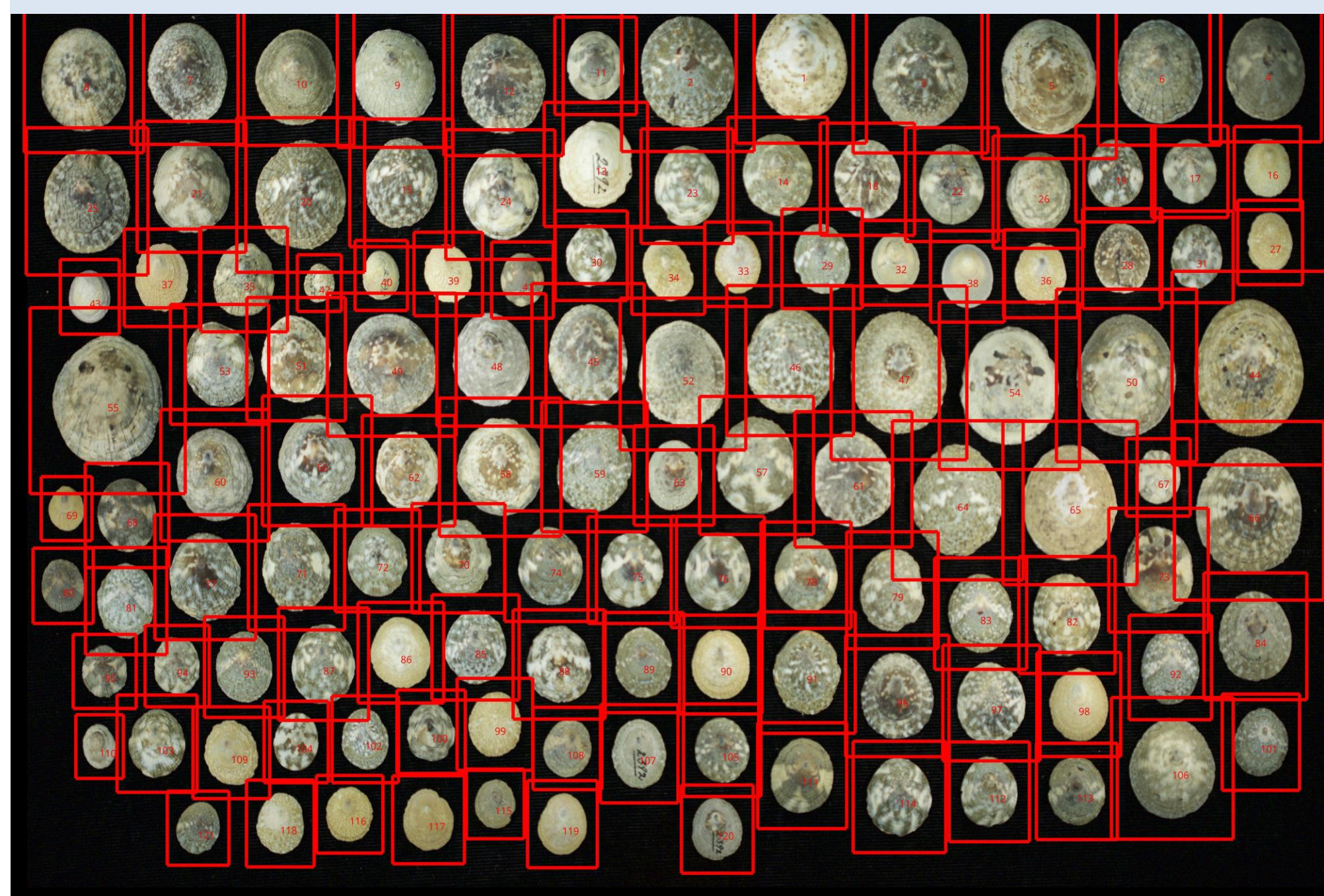
History of the collection

- Comparative collections
- Approximately half collected pre-1925: C. deLange, J. G. Cooper (Second Geological Survey of CA), D. O. Mills (non-marine gastropods), J. Keep, Rev. J. Rowell (land snails), R.E.C. Stearns
- Duplicates: H. Hemphill, USNM, Australia
- Adopted collections: Rudy Stohler, Eugene Coan, Standard Oil, P. Signor, M. E. Harte (venerid bivalves), Ray Smith (Indo-Pacific), USGS Menlo Park collection
- Collections from Emeritus Curators top to bottom: David Lindberg; Carole Hickman; Jere Lipps

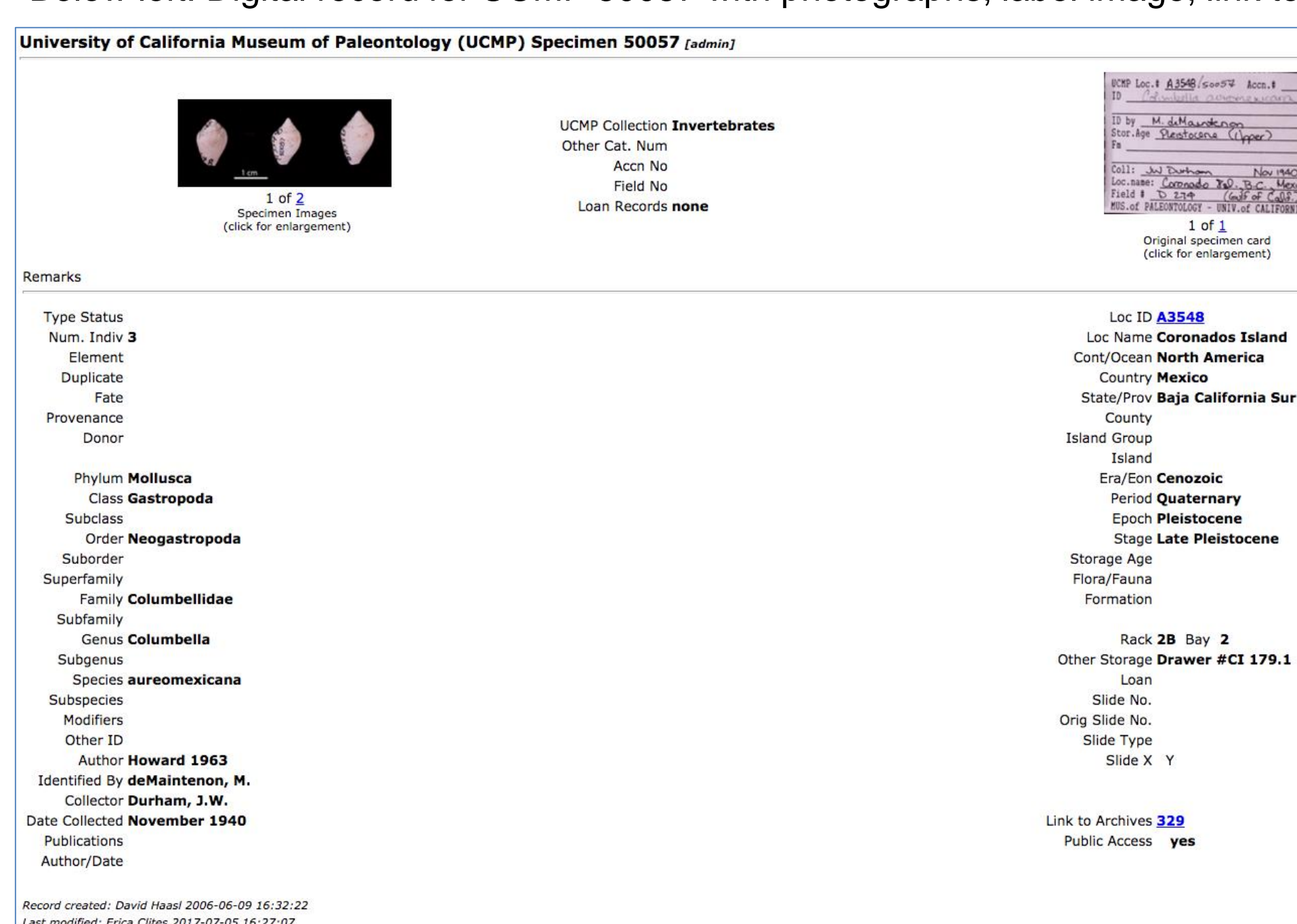


Current digitization activities

- Eastern Pacific Invertebrate Communities of the Cenozoic (EPICC)
 - Cataloging 36,000 Paleocene – Pleistocene marine invertebrates (see photo below right); standardizing taxonomy
 - Photographing 18,000 specimens
 - Georeferencing 12,000 localities; Geological referencing of rock formations
 - Virtual Field Experiences transport teachers, students and general public to classic paleontological localities on the Pacific coast
- Sara Kahanamoku working with Curator Seth Finnegan used a high-throughput imaging system developed by the Pincelli Hull Lab at Yale (Automorph) to photograph 12,000 limpets in one summer (see photo below left).



Above right: Cataloged tray showing paper boxes (some archival), specimen tags on archival paper, glass vials with enclosures and ethafoam. Below left: Digital record for UCMP 50057 with photographs, label image, link to archival database. Below right: UC Berkeley students identifying fossils



Taxonomic and geographic breadth

Primary Types	Secondary Types	Families	Genera	Species
42	513	214	1324	~7000

Marine	North Atlantic	Gulf of Mexico	Caribbean	North Pacific	South Atlantic	South Pacific
Cataloged lots	73	717	261	2445	271	328

Collection highlights

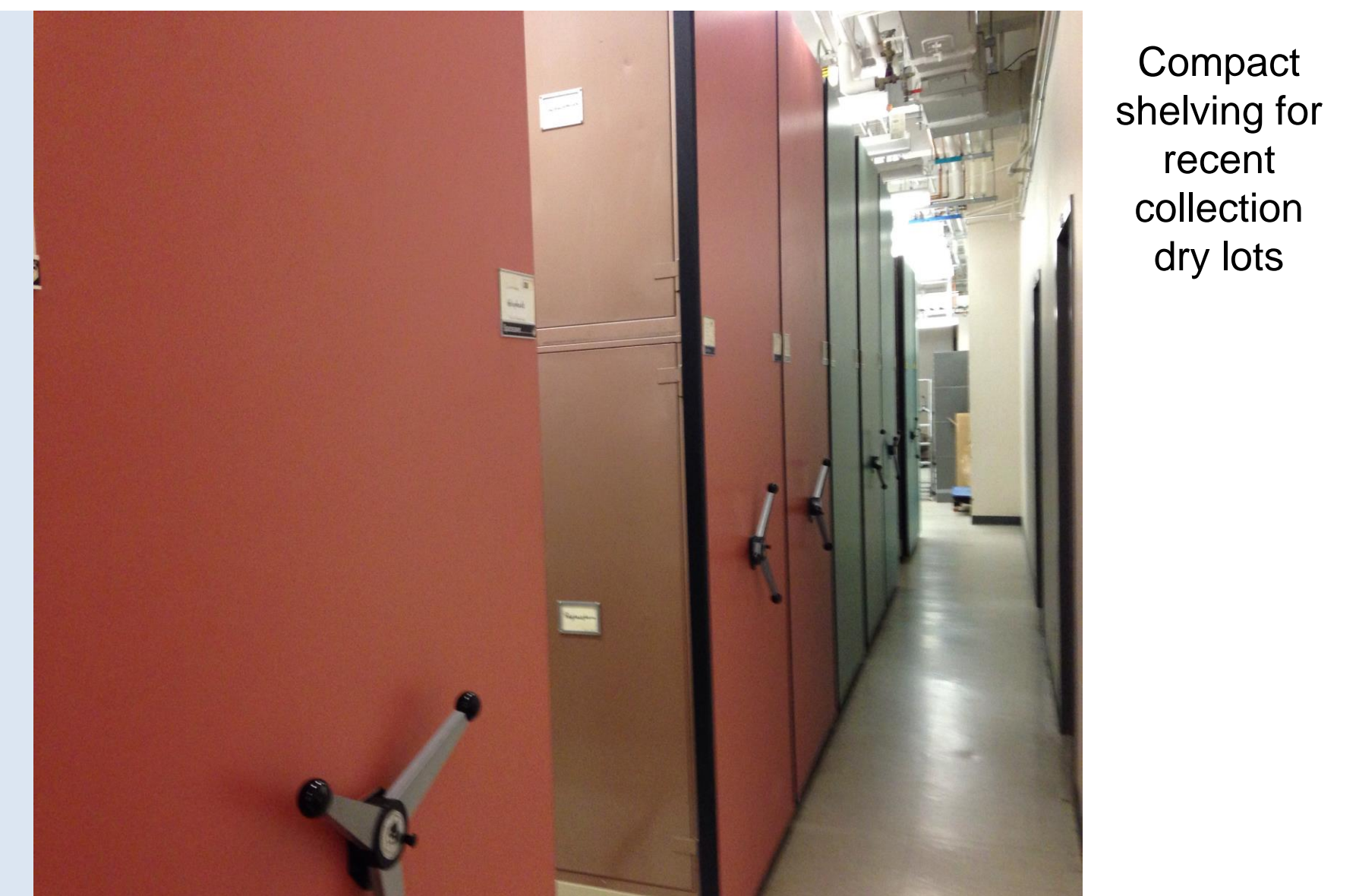
- Mostly marine (<30m depth)
- Extinct and endangered terrestrial mollusks from CA
- Reference collection from Moorea
- Marine samples from Antarctica
- Mostly dry lots; ~375 fluid lots

Most urgent needs

- Maintenance of wet collections
- Drawer inventory for un-cataloged lots
- Revising taxonomic determinations and reorganizing collections accordingly
- Photography
- Georeferencing

Acknowledgements

- NSF DBI awards 1203600, 1503678
- Carole Hickman, David Lindberg
- Helina Chin (UCMP)



Fluid collections storage, including many samples in need of curation