Research Data Curation Services at UC San Diego Library

Ho Jung Yoo & David Minor
251st American Chemical Society National Meeting
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San Diego, California
How is the University of California facilitating public access to scholarly publications? See uc-oa.info for details

Systemwide Academic Senate Open Access Policy, for faculty
July 2013

UC Presidential Open Access Policy, for non-senate employees
October 2015
How is the University of California facilitating public access to scholarly publications?
http://escholarship.org/

Deposit via manual submission

OR the Publication Management System

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A brief history of Research Data Curation at UC San Diego

Research Cyberinfrastructure Design Team

Wrote a report (2009)

Blueprint for the Digital University

Led to a proposal (2010)

Created a campus initiative (2011)

Was folded into (2016)

Created and hosts (2013-present)

Supports and facilitates access to these campus services

• Research Data Curation
• High-Speed Networks
• Storage
• Colocation
• High-Performance Computing
• Technical Advisory Service

Creating a campus initiative (2011)

Was folded into (2016)

Supports and facilitates access to these campus services

Research Data Curation Program
How is UC San Diego Library supporting public access to research data?

Digital Asset Management System

DAMS v1 → Made publicly accessible → DAMS v3

Migrated to

DAMS v4

5 Pilot Projects

UC San Diego Library Digital Collections

Research Data Collections

Research data generated by UC San Diego researchers
The contents are structured hierarchically.

Collection landing page

Object page

Components
Native bee species records for San Diego County

http://dx.doi.org/10.6075/J0PN93HK

An annotated checklist of the bees (Hymenoptera: Anthophila) of San Diego County, California

About this collection

The Mediterranean and desert regions of Southern California include some of the most diverse bee faunas (Hymenoptera: Anthophila) in the world. Due to human development, large portions of Mediterranean scrub and desert ecosystems in Southern California have been destroyed or profoundly degraded. This trend of habitat destruction and degradation is expected to continue as population pressures continue to grow and as Earth’s climate changes. This ongoing inventory project seeks to document all the bee species that occur within the bounds of San Diego County.

Our aim is not only to make this information available for conservation managers and scientists, but also to provide a foundation for future efforts to investigate how bee diversity is affected by anthropogenic climate change in San Diego.

Species records in this database are obtained from diverse sources such as museum collections, primary literature (such as original species descriptions and taxonomic revisions), multi-institutional databases (such as discoverlife.org), citizen-science photography websites (such as BugGuide.net), and recent surveys in the natural habitats of San Diego. This list will be updated as researchers continue to database primary literature and as new species are recorded via ongoing surveys.

Please note that the “Creation Date” listed represents the date of the most recent database revision. We are still in the midst of working with curators and taxonomic experts to verify data sources and identify a number of the bee species in our list. Therefore, please be advised that this list does not represent a complete, error-free inventory of the bee species currently occurring in San Diego County. The database will be updated periodically with additions and/or corrections; please contact the lead author, K. James Hung (kengou.hung@gmail.com), prior to referencing the list.

Photo Credit: Keng-Lou James Hung

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Creation Date

July 2015
Heavy metals at the air-sea interface

http://dx.doi.org/10.6075/J06Q1V5H

Heavy Metals in the Ocean Insect, Halobates

About this collection

Description

Halobates is the only insect genus with representatives living their entire lives in the open ocean. It is a member of the true bug order Hemiptera and belongs to the family Gerridae which includes pond skaters commonly found in freshwater ponds, lakes, streams and rivers. Although the genus was first discovered in 1822, not much was known about its biology or special adaptations which enabled it to live in the open ocean where no other insects were able to survive. This was largely because few entomologists have any reasons to venture out to sea. Being attached to the Scripps Institution of Oceanography (SIO) with sea-going vessels has given me opportunities to study them at sea. What we now know about their distributions, biology, special adaptations and phylogeny can be found in reviews listed under 'Publications'.

This project was initiated when interests on heavy metal pollution were generated following discoveries on lead poisoning from additives in petrol in the 1970s. Air pollutants eventually rain down to earth. Since the ocean covers more than 70% of the earth's surface, many chemical oceanographers were interested in finding out the presence and concentrations of heavy metals in the sea. It is relatively straightforward to measure heavy metal concentrations in seawater but measuring those that occur at the surface film which is the entry point of pollutants to the ocean is quite another matter. Methods and precautions needed in order to prevent contamination of surface samples were difficult to surmount. Halobates are completely wingless. They do not fly, nor dive throughout their lives. They are completely restricted to the sea-air interface. They were easy to collect and samples could be obtained prior to measurements to give dependable results. They can therefore be useful indicators of heavy metal concentrations on the ocean film.

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Date Collected

1961-1978

Date Issued

2016

Extent

2 digital objects
How is the Library encouraging data sharing through the Digital Collections?

- Built a flexible, usable repository
- Seeding the repository with collections having rich metadata, to promote comprehensibility and reusability
- Provide the service at no charge to the depositor/researcher
- Provide Digital Object Identifiers and formatted citations for collections, to promote proper attribution
- Links, links, links
- Potential support for curation internships for graduate students
From access to discovery

Cite This Work