Librarian as Scientist

Presented by:
Marcelle Savoy
Trading the Cardigan for the Lab Coat
My Background

• BS -- Horticultural Science/Botany
• PhD -- Soil and Environmental Microbiology
• MS – Information Science
• High School Biology and Chemistry teacher for 21 years (Retired)
• Currently the Medical Librarian at LMU-DCOM
How did this librarian get involved in scientific research?

- Science is my first love;
- Always had an affinity for microscopy;
- We have an electron microscopy suite;
• The director is jointly appointed with the medical school (one of my liaison contacts) and the Masters of Science program;

• Hmm…
Step 1.
  • Contact Director
  • Express interest in auditing an EM class

Step 2.
  • Apply to graduate school through the admissions department
  • Accepted

Step 3.
  • Begin Class
My Assignment(s):

• Write a literature review on the topic: “Contaminants in Mysid Shrimp from the Deep Water Horizon Spill” (Scientist)

• Help the class with finding resources for their literature reviews (Librarian)

<table>
<thead>
<tr>
<th>Contaminants in Mysid Shrimp from the Deep Water Horizon Spill</th>
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<tbody>
<tr>
<td><strong>A Literature Review</strong></td>
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<td>Mysidaceae spp. of shrimp have been shown to be more sensitive to toxic substances than other marine species tested (Brown and Smetacek) and it is this responsiveness, together with the phases of their short life cycle occurring in both benthic and pelagic zones, which make them most suitable for research purposes [Porter, 2016].</td>
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**Mysid Shrimp Life Cycle**

The diversity of species in the order Mysida is exemplified by the range of aquatic habitats in which they are found. Although 50 percent of these species are marine, occurring in interstitial regions and deep sea environments, they are also abundant in estuary nursing grounds and fresh water.
Learning how to use the Scanning Electron Microscope

Prepare

Definitely Scientist!

View

Analyze
Step 4.
Was asked to be a faculty member on a research trip to the FSU Marine Lab (Wow!! Scientist)
Off to the Florida State University Coastal Marine Lab

Typical Schedule

Morning and Afternoon--- Sample Collection in the Apalachicola Estuary (Scientist)

Alligator Harbor
Collecting Samples

The Otter Trawl for midwater organisms
Nalgene bottles for surface organisms: plankton (Copepods) and juvenile shrimp
Sediment traps for benthic organism or bottom feeders (Tardigrades)
Evening: Instruction with literature sources and bibliographic tools OR finding answers to questions (Librarian)

- BioOne Complete
- JSTOR
- Discovery (our catalog)
- Mendeley
- ScienceDirect & Life Sciences
- Wiley Online Library
- PubMed
Yes: Even PubMed has over 2000 articles on Copepod Physiology

Search results:
Items: 1 to 20 of 2213

1. Molecular physiology of copepods - from biomarkers to transcriptomes and back again.
   PMID: 30921652
   Similar articles

2. The genome and mRNA transcriptome of the cosmopolitan calanoid copepod Acartia tonsa Dana improve the understanding of copepod genome size evolution.
   PMID: 30913947
RESULTS
Future Plans as a Librarian-Scientist... Data Management!!
SERENDIPITY
..Perhaps in part

• The director was in my liaison area (medicine);
• Audited his class and wrote a literature review;
• Over half of the students completed their first year of medical school;
• The grant money was provided by the College of Medicine;
• The school year was completed…a bit of a lull.
• It probably helped to have a science background;
• A field librarian