Southeast Science Boot Camp for Librarians
2019
Vanderbilt University

Librarian as Scientist

Presented by:

Marcelle Savoy

LMU

DeBusk College *of* Osteopathic Medicine
LINCOLN MEMORIAL UNIVERSITY

VALUES | EDUCATION | SERVICE

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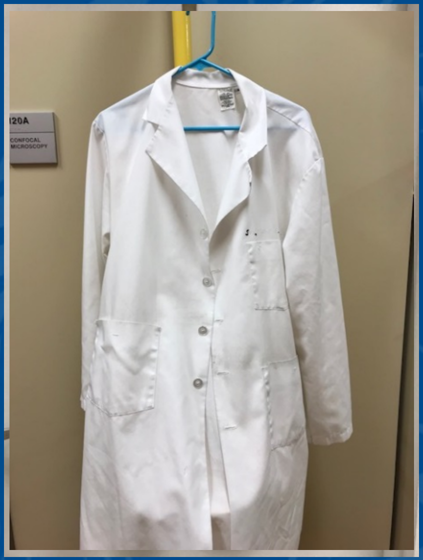
Trading the Cardigan
For the Lab Coat



VALUES | EDUCATION | SERVICE

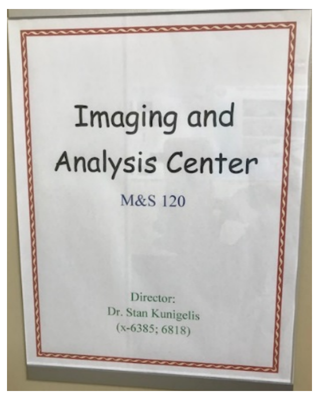
My Background

- 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;

TEM



SEM

- 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

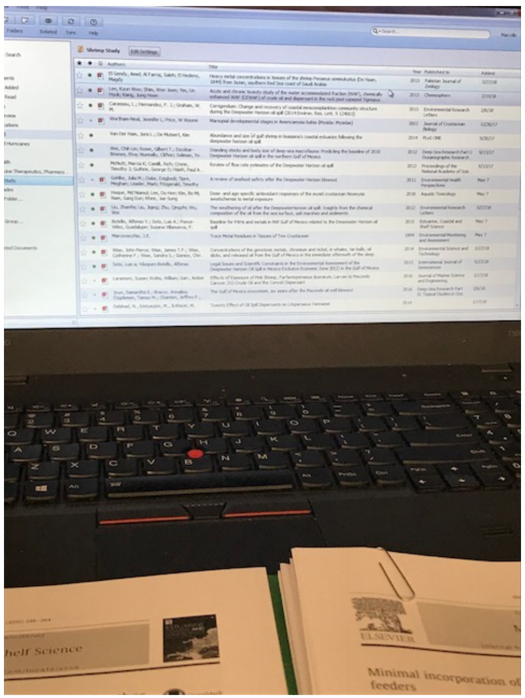
Step 3.

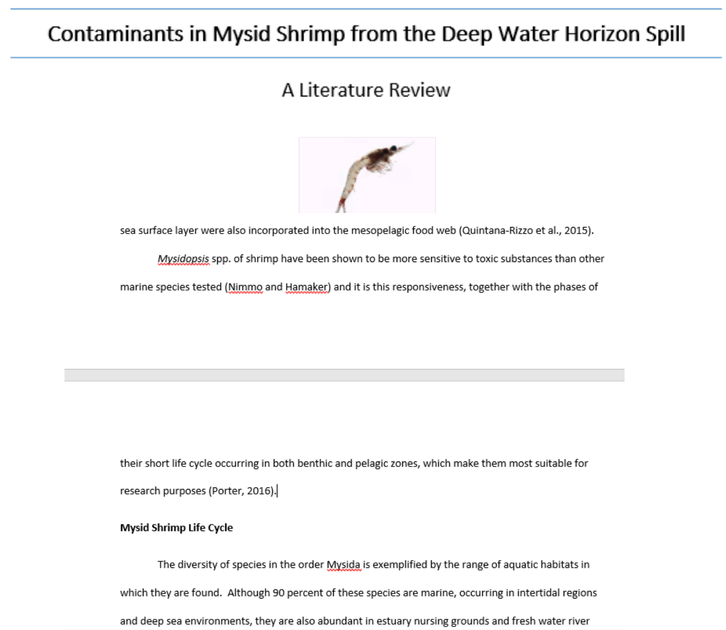
- Begin Class

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)





Contaminants in Mysid Shrimp from the Deep Water Horizon Spill

A Literature Review

sea surface layer were also incorporated into the mesopelagic food web (Quintana-Rizzo et al., 2015).

Mysidopsis spp. of shrimp have been shown to be more sensitive to toxic substances than other marine species tested (Nimmo and Hamaker) 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).

Mysid Shrimp Life Cycle

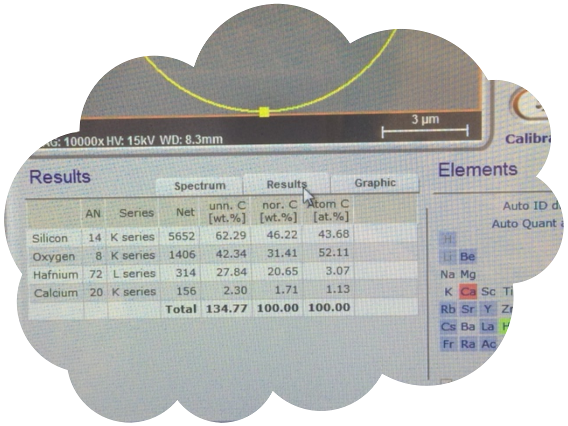
The diversity of species in the order Mysida is exemplified by the range of aquatic habitats in which they are found. Although 90 percent of these species are marine, occurring in intertidal regions and deep sea environments, they are also abundant in estuary nursing grounds and fresh water river

Learning how to use the Scanning Electron Microscope

Prepare

Definitely Scientist!

View



Analyze

Step 4.

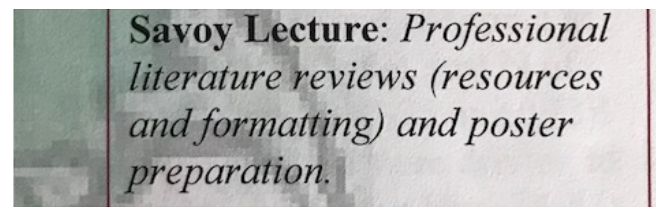
Was asked to be a faculty member on a research trip to the FSU Marine Lab (Wow!! Scientist)

2018 LMU OMS-MS-BS
Research Marine Biology:
Copepods, Tardigrades, Mysids

Apalachicola **Estuary**, Florida State University Marine Lab.
May 24 – June 04, 2018.
Crystal River **Manatees**, FL, May 31-June 01, 2018.

Date	Morning (7:45-11:45 am)	Afternoon (1:15-5:30 pm)	Evening (7:00-10:00 pm)
Th- 24th LL 0.9' HH 2.3'	Depart LMU for FSU Coastal and Marine Laboratory, 3618 Coastal Highway 98, St. Teresa, FL 32358-2702	Driving and more driving! (660 mi) (81-75-319-98)	Dinner in T-town. Groceries in Crawfordville. Arrive FSUML 9-11pm. Unpack. Good night!
F—25th LL 0.5' HH 2.7'	**Collection 1a**: Pontoon Boat Coastal Survey of Alligator Harbor, Otter [illegible] Plankton Trawls, [illegible]ng.	**Collection 1b**: Pontoon Boat Coastal Survey of Lanark Shoal, sandbar, & oyster bar. Otter and Plankton Trawls, Snorkeling.	Clean boat and gear. **Dinner.** **Kunigelis Lecture:** *Research overview.* Tissue fixation overview. **Microscopic sorting of copes, tardigrades, and mysids by genus.**
a-26 L 0.1' H 2.9'	**Surgery 1a:** Project specific specimen identification, sorting, manipulation, or microsurgery.	**[illegible]rgery 1b:** [illegible]t specific specimen id[illegible]ion, sorting, manip[illegible]r microsurge[illegible]	**Dinner.** **Surgery 1c**: Project specific specimen identification, sorting, manipulation, or microsurgery.
-27 -0.2' 3.0'	What's an estuary? Estuarine orientation.	South shore of estua[illegible] George Island survey. Town of Apalachicola.	**Dinner.** **Savoy Lecture**: *Professional literature reviews (resources and formatting) and poster preparation.*
28 -0.3'	Classroom activities. Survey FSUML	Wakulla Springs: the Real FL.	**Dinner.** **Smith Lecture 1:** *Plight of the*

Oops! Librarian



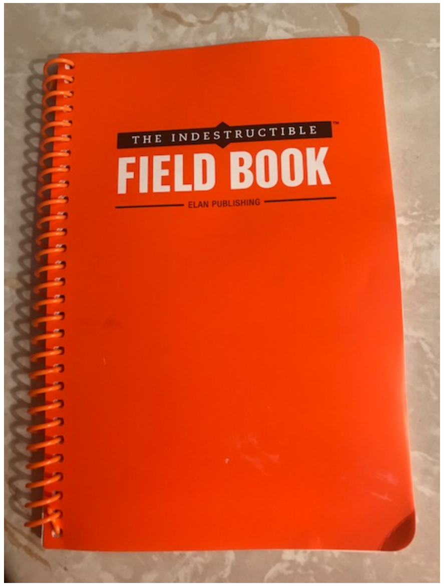
Savoy Lecture: *Professional literature reviews (resources and formatting) and poster preparation.*

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

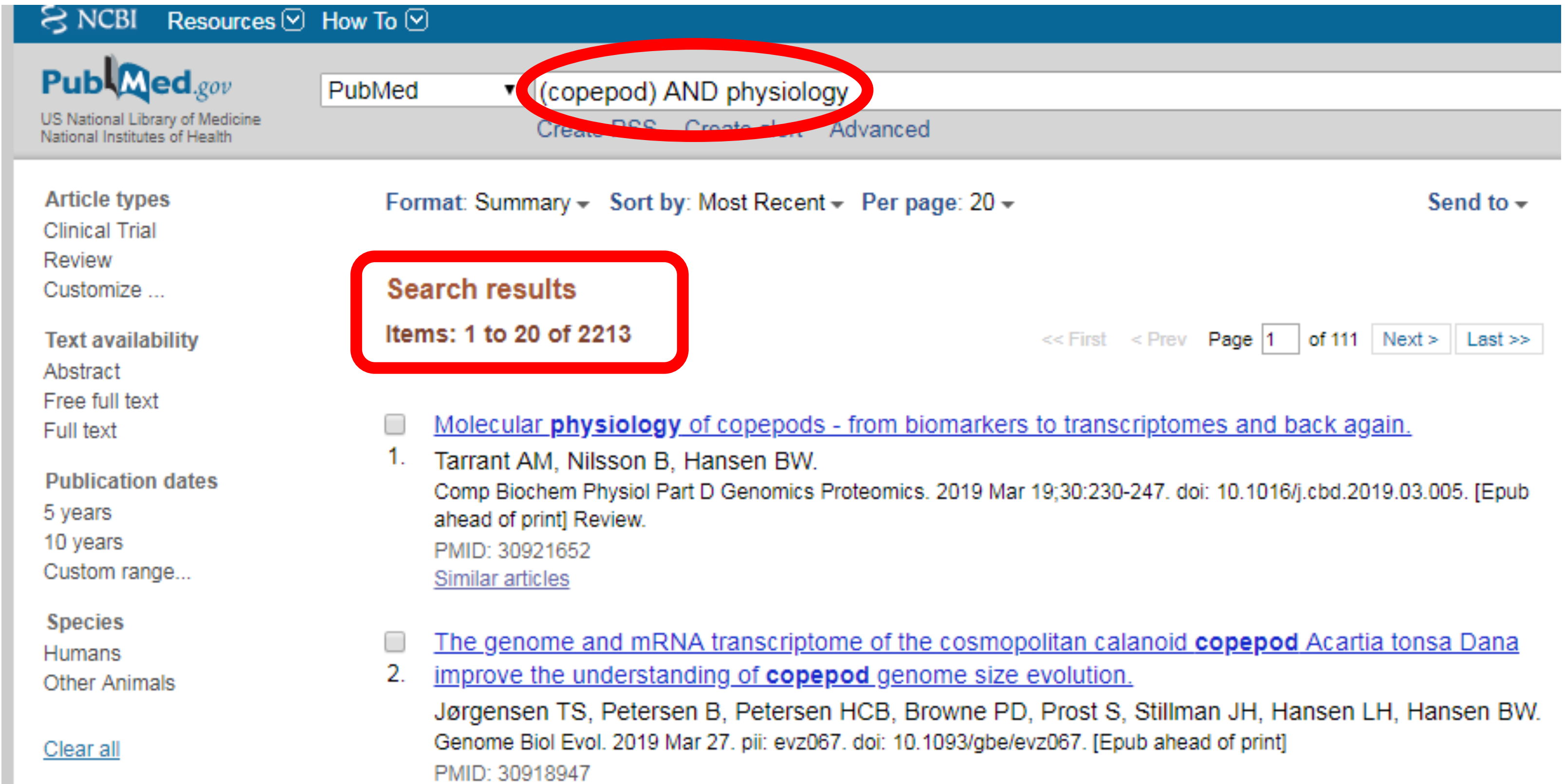
Nalgene bottles for surface organisms: plankton (Copepods) and juvenile shrimp

Sediment traps for benthic organism or bottom feeders (Tardigrades)

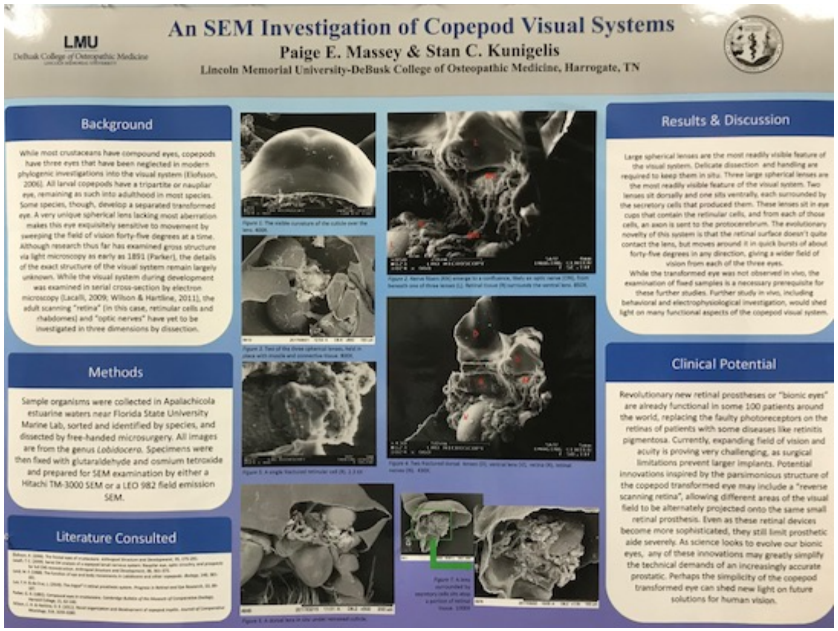
Evening: Instruction with literature sources and bibliographic tools OR finding answers to questions (Librarian)

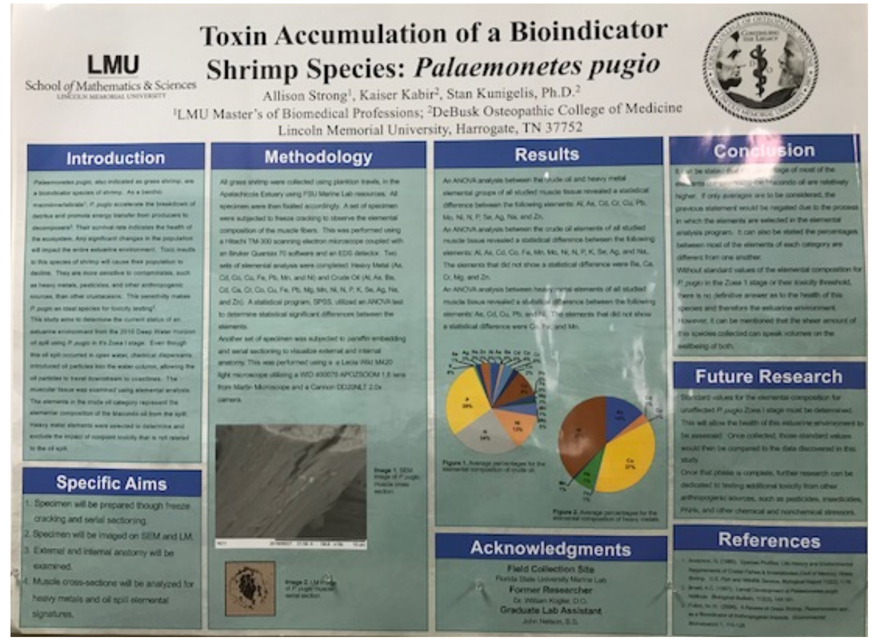
- BioOne Complete
- JSTOR
- Discovery (our catalog)
- Mendeley
- ScienceDirect & Life Sciences
- Wiley Online Library
- PubMed

Yes: Even PubMed has over 2000 articles on Copepod Physiology

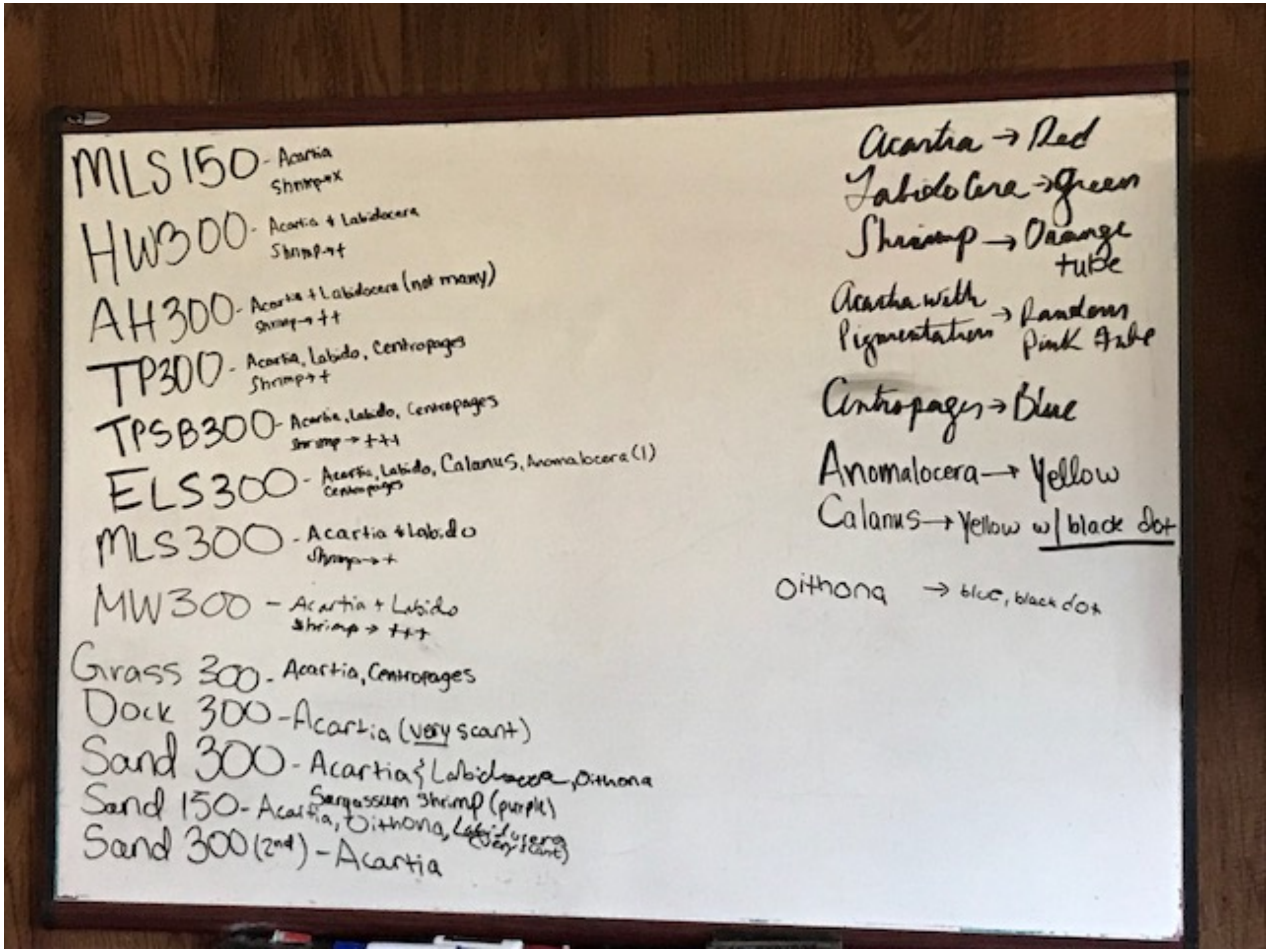


RESULTS


LMU
An SEM Investigation of Copepod Visual Systems
Paige E. Massey & Stan C. Kunigelis
Lincoln Memorial University-DeBusk College of Osteopathic Medicine, Harrogate, TN
Background
Methods
Literature Consulted
Results & Discussion
Clinical Potential


LMU
School of Mathematics & Sciences
Toxin Accumulation of a Bioindicator Shrimp Species: Palaemonetes pugio
Allison Strong1, Kaiser Kabir2, Stan Kunigelis, Ph.D.2
1LMU Master's of Biomedical Professions; 2DeBusk Osteopathic College of Medicine
Lincoln Memorial University, Harrogate, TN 37752
Introduction
Methodology
Results
Conclusion
Specific Aims
Acknowledgments
Future Research
References

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

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