

# Collections Management Panel Discussion

Peter Oboyski, UC Berkeley

David Furth, Smithsonian Institute

Christine Johnson, American Museum

Katrina Menard, Sam Noble - Oklahoma

Richard Brown, Mississippi State

Max Barclay, The Natural History Museum

Beulah Garner, The Natural History Museum

Entomology Collections Network 2014

# Peter Oboyski

Collections Manager, Curatorial Supervisor



- 6,000,000 specimens, 50-80 loans per year
- Director & Associate Director
- 5 Museum Scientists (mostly 20% time each)
- 12 workstudy students (databasing), 5 volunteers

# Discussion

- IPM in the absence of fumigants
- Packing & shipping
- Labels & printing
- Microscope slides
- Alcohol / fluid preservation
- Environmental Samples
- Role of Collections Manager
- Collections Management course?

# David Furth

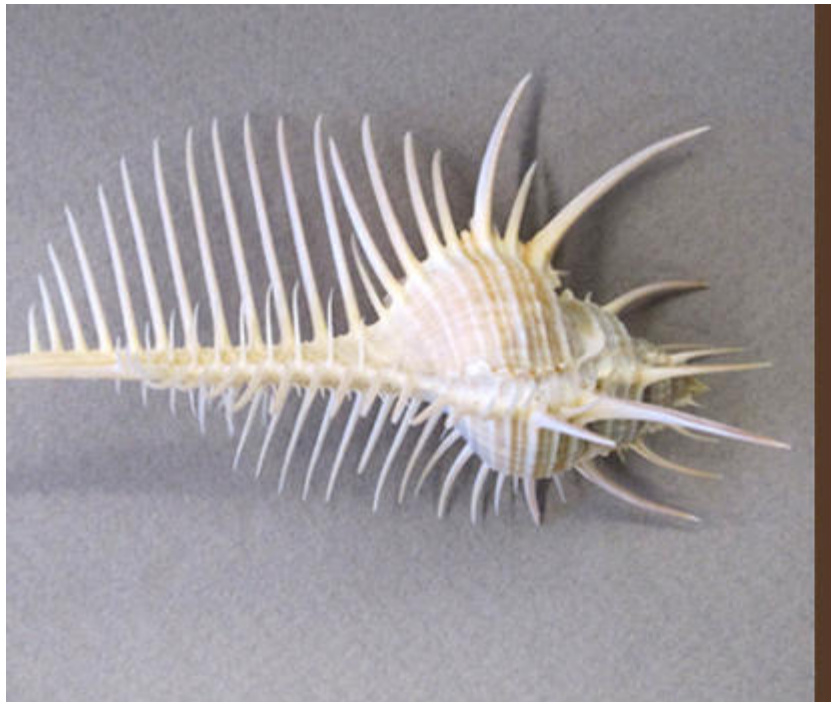
Collections Manager  
Smithsonian Institution



# Christine Johnson

Curatorial Associate

The American Museum of Natural History



Christine Johnson, Curatorial Associate (Collection Manager) since 2011  
Division of Invertebrate Zoology  
American Museum of Natural History

***Insects, terrestrial arthropods, marine invertebrates***

- *~23-25 million (pinned, dry, in fluid) specimens*
- *~1,450 cabinets*
- *~39,973 drawers or trays*
- *~96,000+ slides*
- *10 curators (6 organismal, 4 primarily genomics)*
- *2 active Curator Emeriti*
- *6 Scientific Assistants, 3 part-time Curatorial Assistants*
- *Currently, some 38(?) + databases for loan management & specimens (for the entire division)*
- *In process of “installing” division-wide database (Emu) & migrating data*

# Sam Noble Oklahoma Museum of Natural History

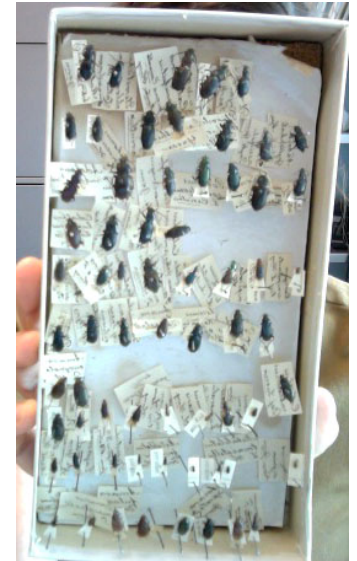
Katrina Menard

Recent Invertebrates Collection



# Collection

- Around 500,000 + specimens
  - Mostly terrestrial insects
  - At least 100,000+ unprocessed mosquitoes
- Harley Brown Collection
  - 50% pinned, 50% in alcohol
- Groups in alcohol that need re-processing





# Staff

- Assistant Staff Curator (100% Museum)
- Collection Manager (100% Museum)
- 4-6 volunteers
- 1-2 student workers (depending on funding)



# Richard Brown

Director

MISSISSIPPI ENTOMOLOGICAL MUSEUM





# Max Barclay & Beulah Garner

## Curators

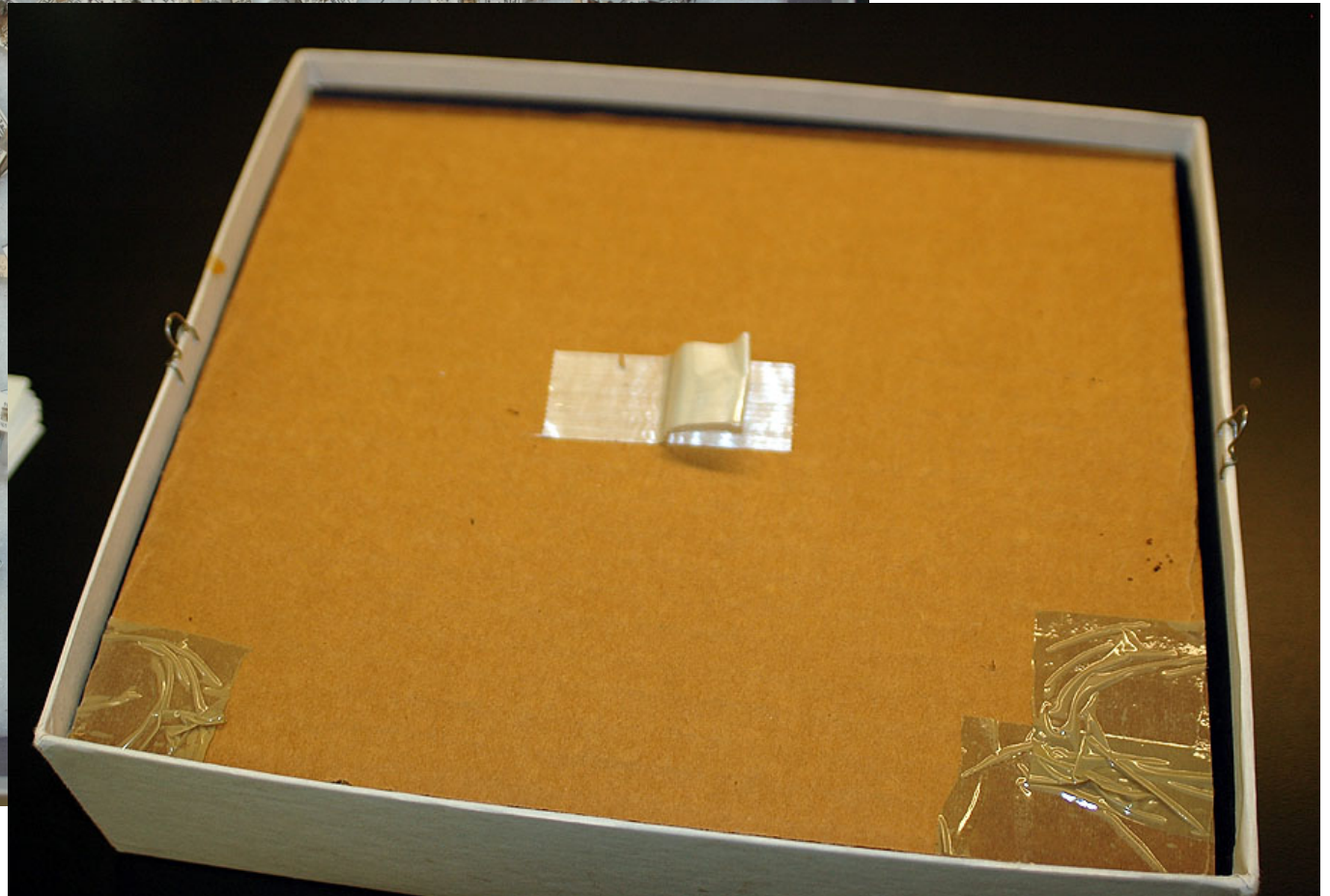
### The Natural History Museum, London



# IPM without fumigants



# Packing & Shipping



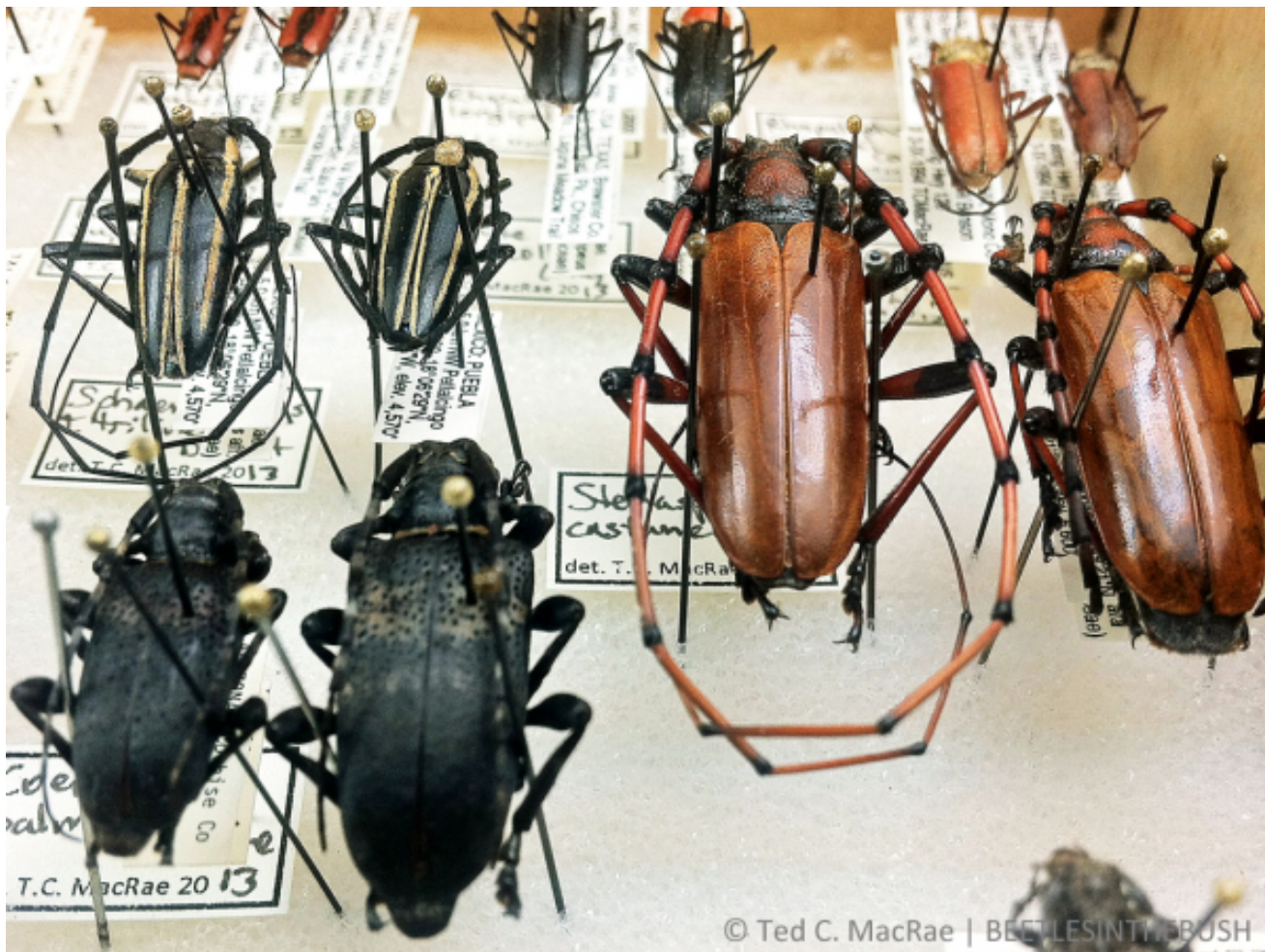
# Packing peanuts

Polystyrene

vs

Starch-based





- Ted MacRae's online step-by-step instructions
- <http://beetlesinthebush.wordpress.com>
- Search “pack and ship insects”



# Labels & Printing

- Laser jet printers
- Archival ink printers
- Thermal transfer printers



# Paper & Ink

- Archival paper – Acid-free, high rag content
- Resistall paper – for wet collections



November  
2012

95% EtOH

UC Berkeley  
EMEC  
850596



UC Berkeley  
EMEC  
850597



UC Berkeley  
EMEC  
850598

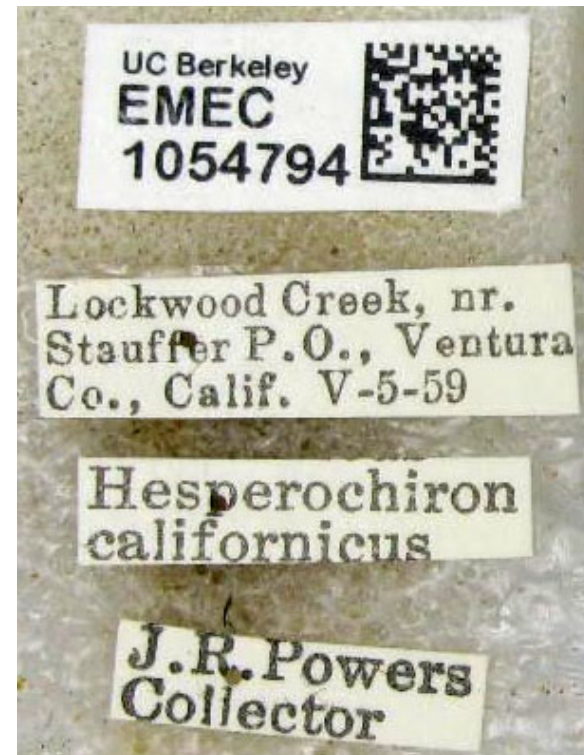


UC Berkeley  
EMEC  
850599



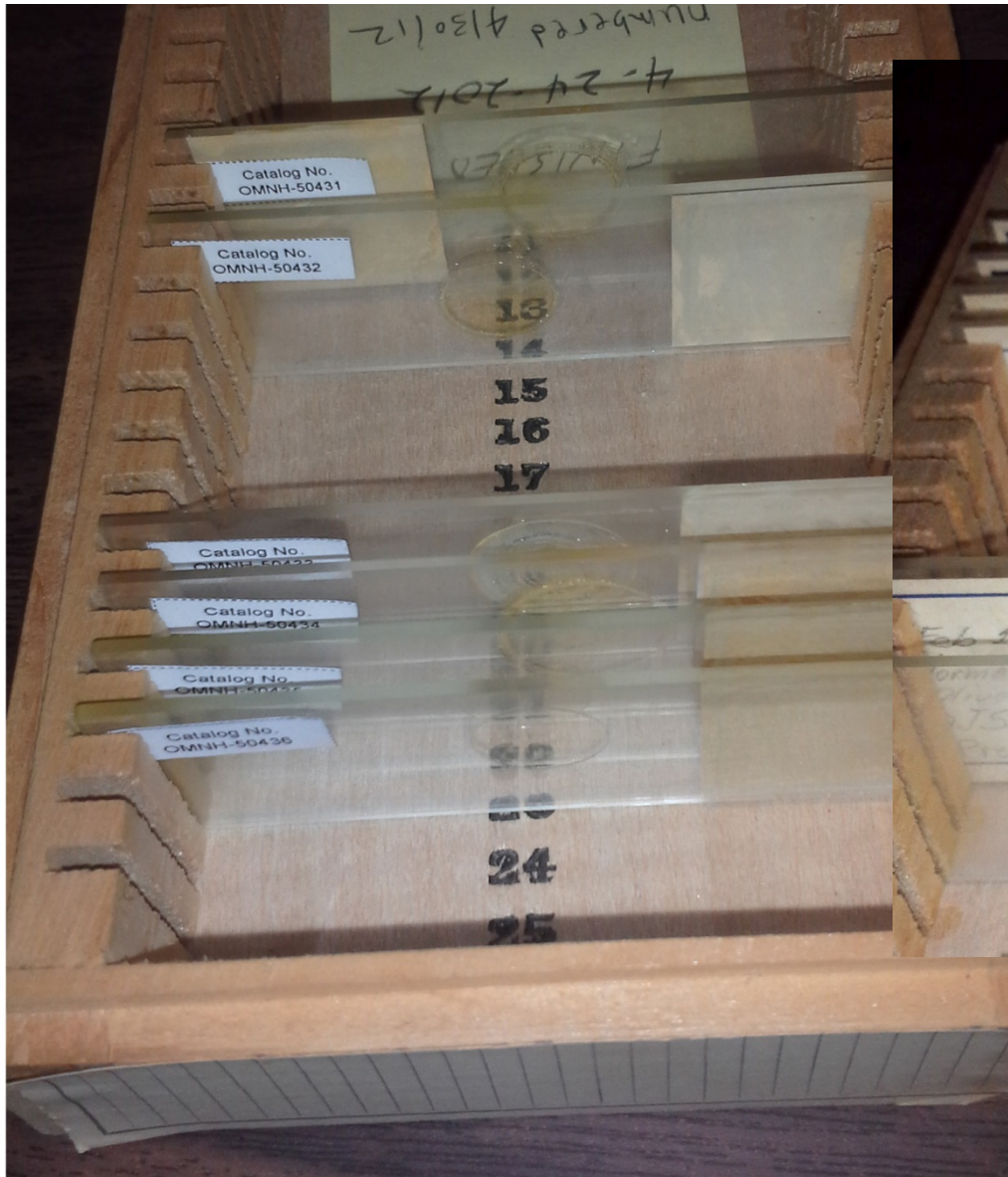
# Barcode Labels

- Symbology: Code 39, Datamatrix, QR code
- What to encode – catalog number, GUID, other?
- Printing: resolution, size
- Placement: top label, bottom label



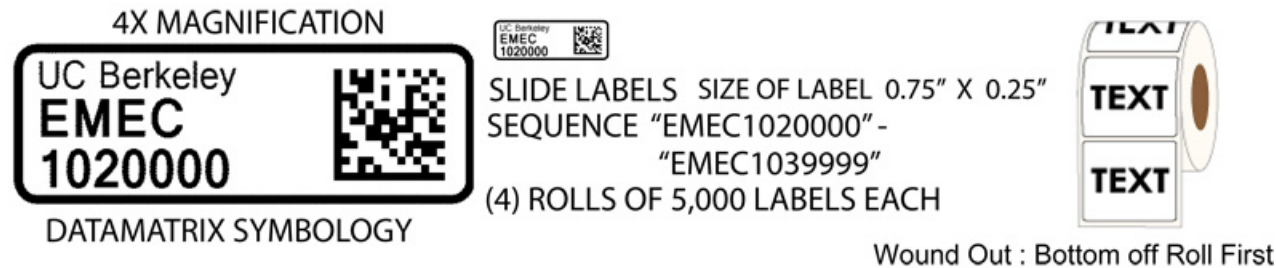


# Microscope Slides



# Slide Labeling Solutions

- Cataloging slides: foil-backed archival labels
  - University Products: 387-3025 B.
  - Print the catalog labels onto the paper, foil layer self-adheres to glass. Archival.



- Electronic Imaging Materials, Inc.
  - <http://www.barcode-labels.com/>
  - Pre-printed custom barcode labels
  - Archival, alcohol resistant, “aggressive” adhesive

# IPM without fumigants





# Fluid (alcohol) preservation





USA: ALASKA, St. Matthew  
Empeurum, Luvula pitfall, 1.3  
2012 D. S. Sikes, C. E. Bickford  
UAM:Ento:245859  
UAM100056251

USA: ALASKA, St. Matthew  
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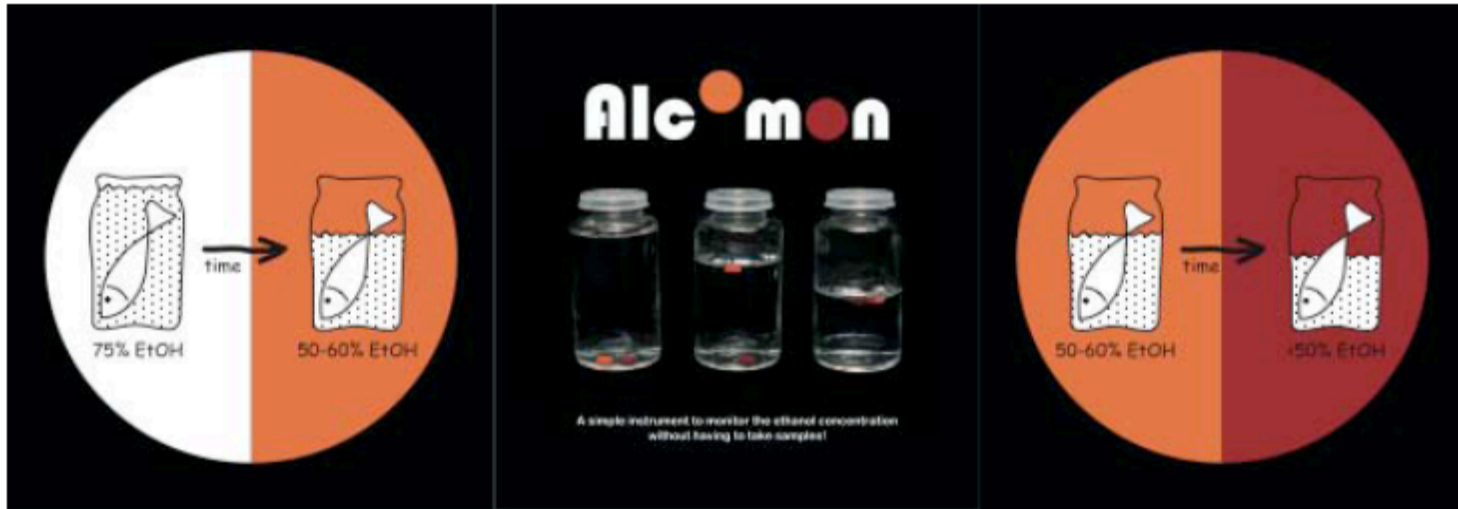
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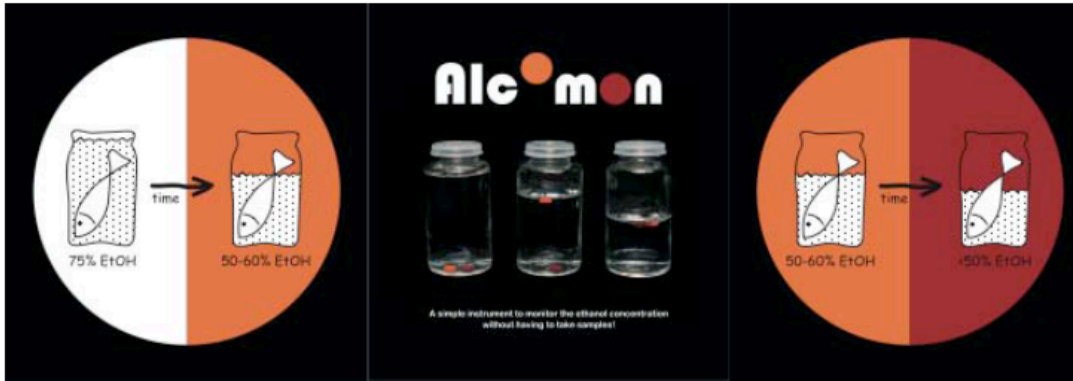
A SIMPLE INSTRUMENT TO MONITOR THE ETHANOL CONCENTRATION IN FLUID PRESERVED SPECIMENS



- Alcohol monitoring system: Alcomon Tabs.
  - If both orange and maroon tabs are sunk, greater than 70% ethanol concentration
  - Orange tab up: near 50-60%. Both up...less than 50% ethanol.



A SIMPLE INSTRUMENT TO MONITOR THE ETHANOL CONCENTRATION IN FLUID PRESERVED SPECIMENS



Tabs kept in separate vial

All vials submerged in 75% ethanol

Pros: entire jar can be monitored

Cons: having vials in jar makes retrieval of specimens and organization of cataloged material challenging.



# Environmental Samples: Destructive Sampling



Photo: Barta IV

# Role of Collections Managers

- Titles:
  - Curator, Curatorial Assistant, Museum Scientist
- Management
  - Collections, People, Schedules, Purchasing
  - Images, Field Notes, Data, other archives
- Outreach
  - Tours, Preparing displays, teaching
- Grant writing
- Training, volunteers

Collections Management Course ?

Collection of online resources ?