

# Designing Interdisciplinary Collections Internships for College Students

Emily Patton Smith, Collections Manager  
Randolph College Natural History Collections Project  
(NHCP)

March 19, 2015

# My Background...



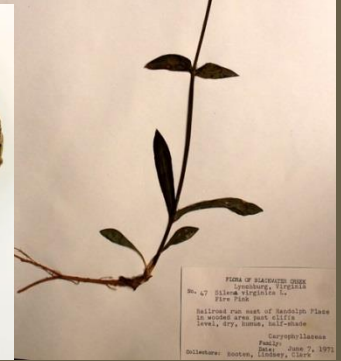
- BA in Heritage Preservation from Randolph College (2012)
- Preservation Institute: Nantucket (University of Florida, 2004); Poplar Forest Archaeological Field School (2014)
- Summer research in England & Scotland (2006): Sydney Parkinson
- Senior Thesis: “Tales Dead Birds Tell: the historical and cultural context of early avian specimens in the Biology collections of Randolph College” (2011)
- Research Partner in HistoryTech, LLC (present)



Natural History Museum,  
London

# Natural History at Randolph College

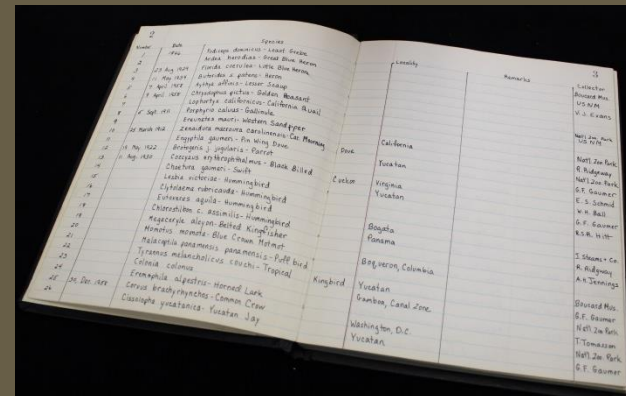
- Begun c. 1895
- Zoological Specimens: Birds, Mammals, Fish, Reptiles, Amphibians, Insects, Marine Invertebrates
- Fossils & Geology
- Herbarium: Indigenous & Non-Native Plants (Eastern U.S.)
- Human Osteological Specimens
- Antique Wall Charts & Microscope Slides



# Our Collections in 2011:



- Comprehensive card catalog for herbarium only
- Handwritten inventory of mammal and bird skins (incomplete)
- Geology inventory for only a few hundred specimens, tags missing & numeration not current
- Specimens hastily boxed and stored in attic, basement
- Damage: Water, heat, infestation



# The Natural History Collections Project

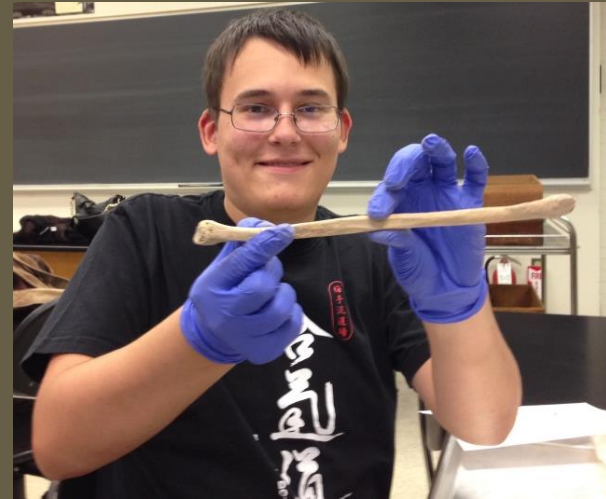
- Begun 2011; started with 1 intern / 2 volunteers
- Currently 8-12 interns and 15+ volunteers *per academic semester*



# What Our Interns Do:

- Specimen preparation
- Photography / digitization
- Cataloging and inventory
- Tagging and organization
- Cleaning, repair, and reconstruction
- Display design and setup
- Website design and maintenance
- Social media management
- Active collections-based research (with collaborating faculty)
- Educational outreach programs
- Art and creative writing projects





# Why Internships?

- Recent emphasis on “co-curricular activities”
- Supplement & enhance classroom learning while providing career-related experience
- Students with hands-on experience are more competitive
- Helps mitigate cost of personnel / staffing





# Why Interdisciplinary?

Dr. Loretta Jackson-Hayes (Rhodes College):

The screenshot shows a web browser window displaying a Washington Post article. The browser's address bar shows the URL: [www.washingtonpost.com/posteverything/wp/2015/02/18/we-dont-need-more-stem-majors-we-need-more-stem-majors-with-liberal-arts-training/](http://www.washingtonpost.com/posteverything/wp/2015/02/18/we-dont-need-more-stem-majors-we-need-more-stem-majors-with-liberal-arts-training/). The article's title is "We don't need more STEM majors. We need more STEM majors with liberal arts training." The author is Loretta Jackson-Hayes, an associate professor of chemistry at Rhodes College in Memphis. The article's sub-headline is "The ability to draw from other disciplines produces better scientists." The page includes social media sharing icons for Facebook, Twitter, Google+, and Email, along with a "Sign In" button. An advertisement for "THE OPTIMIST" is visible, featuring a pair of glasses reflecting a tropical scene. The Windows taskbar at the bottom shows the time as 10:16 PM on 3/17/2015.

**The Washington Post** Search Sign In

PostEverything

## We don't need more STEM majors. We need more STEM majors with liberal arts training.

The ability to draw from other disciplines produces better scientists.

Member FDIC

Advertisement

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10:16 PM 3/17/2015

<http://www.washingtonpost.com/posteverything/wp/2015/02/18/we-dont-need-more-stem-majors-we-need-more-stem-majors-with-liberal-arts-training/?hpid=z11>

# Why Interdisciplinary?

- Randolph College has a liberal arts emphasis
- Collections work is relevant to students outside museum studies or science career fields
- Students from “outside disciplines” bring fresh perspective, innovative approach to tasks
- Advocates for the importance of collections: journalism, business, law, education, political science / public policy...
- Collaboration with other departments = expanded possibilities for sources of funding



# Structuring Internships

## Consider:

- Collection needs / priorities
- Student interests
- Unusual opportunities (including community outreach and networking)



At the Smithsonian with Chris Milensky



Randolph College ScienceFest

# Collections-Based Projects: The Walter A. Weber Collection



Sketches and specimens by  
Walter A. Weber



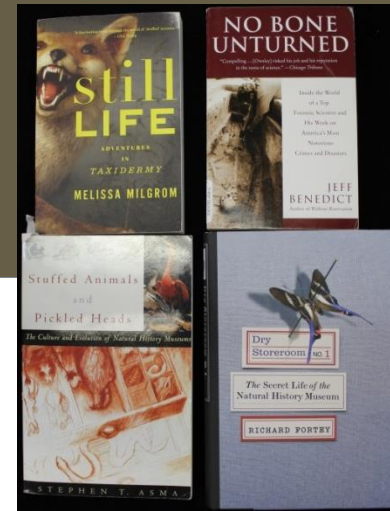
Digitizing



Inventory

# Structuring Internships

- Joint effort with **Career Development Center**
- Requirements for academic credit:
  - 3 hrs work / week per credit hour
  - Writing requirement (blog posts)
  - Associated reading (articles if 1-credit, book if 3-credit)
  - Public presentation
  - Workshop attendance



## Learning from Taxidermy

Posted on April 22, 2014 by Emily Smith



By Kelia Cutkelvin

As a biology major, and a hope-to-be veterinary student, learning all I can about animals has been a very important and enjoyable effort in my life. I never tire of finding new and interesting ways to expand my knowledge and finding thrilling experiences in the biology field. For this reason there was no doubt in my mind that for my spring internship I wanted to participate in Randolph College's Natural History Collection. I had heard much about the Collection's Project in the fall and had been able to take part in it after finding a deceased bird on the steps of Moore Hall and it was that one experience that let me know that this was something I would be interested in.

For my internship



# Other Options...

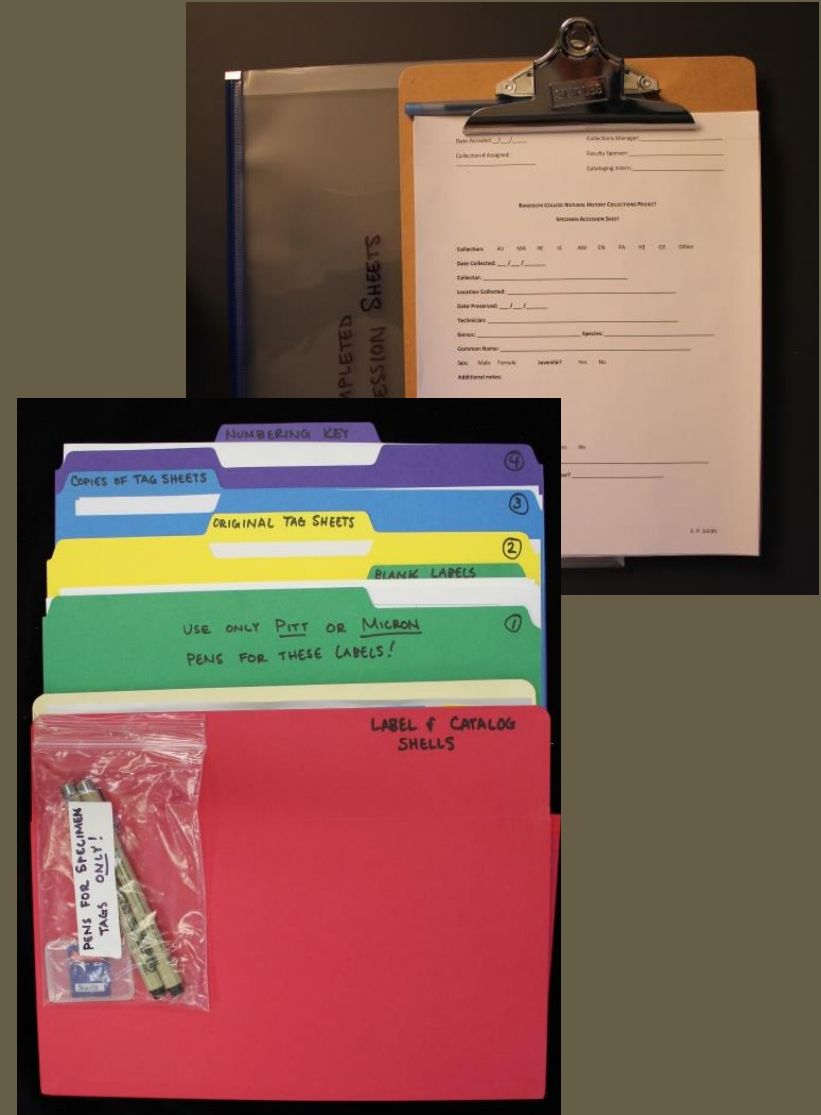
- Non-credit internships (volunteer)
- Independent study (research)
- Work study



# Managing Internships

Create straightforward systems:

- Clear procedure sheets
- Reference binders
- Project folders
- Project task board
- Log of hours
- Specimen collecting kits



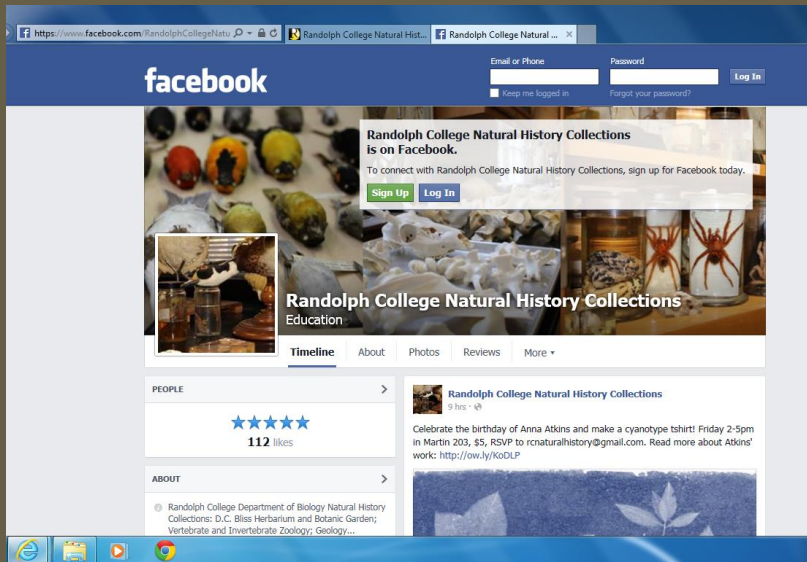
# Managing Internships

- Open workdays
  - students interact with other interns who have different tasks or projects
- Weekly & monthly workshops
  - teach collections management skills (weekly)
  - topics-based or career development opportunities (monthly)





# Managing Internships



## Advertising Internships:

- Brochure
- Word of mouth
- Social media:
  - Facebook, Twitter, Tumblr (Hootsuite)
- Community bulletin board (online portal)
- Collections bulletin board (in department)
- Direct targeting—professors in related disciplines
- Gold Key (Admissions) tours
- Campus “Involvement Fair” (fall)



# Effective Internships:

- Communication: email, verbal
- Active demonstration
- Accountability, clear expectations
- Approachability
- Productivity
- Timeliness
- Sometimes the best interns are *not* the best students!



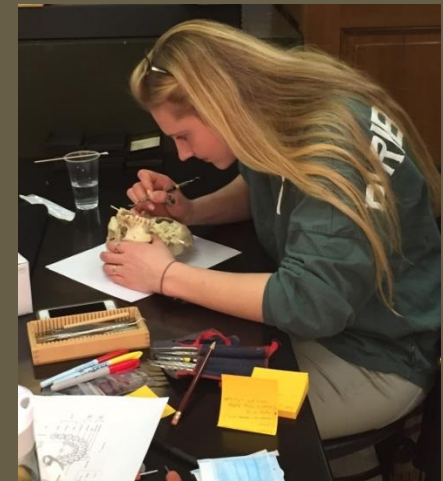
# Projects to Consider for Interdisciplinary Internships:

- Specimen preparation / restoration (art students, biology / pre-vet)
- Cataloging / data entry (museum studies, all sciences, library science / archiving, history, archaeology, sociology)
- Digital photography (art / photography, biology, journalism / communications)
- Geology identification and cataloging (environmental studies, geology, chemistry)
- Wet preps / fluid identification and maintenance (biology and chemistry)
- Website development (business/ marketing, computer technology, graphic design, creative writing / journalism, psychology)
- Display design (art / graphic design, history, education, museum studies, marketing, creative writing, communications, philosophy)
- 3-D replication and printing (art / graphic design, technology / engineering, physics)
- Virtual gift shop (business / marketing, art / graphic design, psychology)

# Collections-Based Research Projects:

## Forensics:

- health and gender data for archaeological remains and articulated skeletons
- DNA sampling
- sources of specimens
- detection of hemoglobin



# Collections-Based Research Projects:

## Bioarchaeology

- MNI for burials at Bir-el-Knissia, Tunisia
- Palynology and phytolith analysis of historic farm sites (proposed)



# Collections-Based Research Projects:

## Dendrochronology

- species and growth rates of trees on campus



## Field ecology

- Pollinators in Botanic Garden and Organic Garden
- Micro- and macro-invertebrate studies of local stream systems (possible)

# Collections-Based Research Projects:

Species most at risk for window kills, roadkill in different seasons (salvage collections)



# Collections-Based Projects: Art Collaborations



Eagle study by Laura Snell




Opening reception for “Aves” at  
the Maier Museum of Art



Khavya Pradhan with Prof.  
Kathy Muehlemann, showing  
Khavya’s painting of our  
Carolina Parakeet

January 22–April 12, 2015

## *Aves:* Birds from the Natural History and Art Collections at Randolph College



Bob Van Hosen (1936–2010), *Flamingo Slipping*, 1987, acrylic on paper, 11 1/4 x 13 1/4 in. Gift of the J. Mark Adams and Beth Van Hosen Adams Trust, 2012

**MAIER MUSEUM OF ART**  
AT RANDOLPH COLLEGE

SPRING SEMESTER 2015

In addition to its world-class collection of American art, Randolph College is home to a Natural History Collection which also originated soon after the College was founded. The Natural History Collection, housed in the biology department in Martin Science Hall, has recently grown in stature and significance.

The Natural History Collection contains hundreds of zoological specimens including birds, mammals, fishes, reptiles, insects, marine invertebrates, and fossils. The herbarium contains thousands of specimens of plants indigenous to or introduced to the eastern United States, specifically Central Virginia. In addition, a geology collection features thousands of rock and mineral samples from around the world.

The core collection dates back to at least 1895, with geological specimens amassed by Fernando Wood Martin, chair of the department of Physics and Biology at what was then Randolph-Macon Woman's College. The zoological collections were extant by 1913, when



# What A Few of Our Members and Graduates Are Doing Now:

- Graduate Studies:
  - History
  - Veterinary Studies (Virginia Tech--2)
  - MS Microbiology (Wagner College)
  - MS Environmental Science (Evergreen State University)
- Ecology research at Oak Ridge National Laboratory
- Avian species documentation in Ecuador
- Assistant to Executive Director, Provisions Library (George Mason University)
- Internship at Chicago Botanic Garden
- Teaching (Rustburg High School)
- Project Official for Carbon Business Office (CBO) at Thailand Greenhouse Gas Management Organization
- Wilderness Guide (Greenland)
- Year in Britain (University of Reading)

