



**Collections Internships for College  
Students:  
Designing an Interdisciplinary Program**

Emily Smith, *Collections Manager*

Randolph College Natural History & Archaeology  
Collections Project

# Natural History Collections at Randolph College

- Begun c. 1895
- Zoological Specimens: Birds, Mammals, Fish, Reptiles, Amphibians, Insects, Marine Invertebrates
- Fossils & Geology
- Herbarium: Indigenous & Introduced Plant Species (Eastern U.S.)
- Human Osteological Specimens
- Antique Wall Charts, Microscope Slides & Lantern Slides
- Archaeological Remains





# The Natural History & Archaeology Collections Project (NHACP)

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- Begun 2011 with 1 intern, 2 volunteers
- Currently 8-12 interns, 15+ volunteers and 3 work study *per academic semester!*
- Staff: 1 Collections Manager, 1 Faculty Sponsor, 1 Lab Manager, 6-9 collaborating faculty (variable per semester)



# What Our Interns Do:

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- Specimen Preparation
- Photography / Digitization
- Cataloging and Inventory
- Tagging and Organization
- Cleaning, Conservation
- Display Design and Installation
- Website Design and Maintenance
- Social Media
- Collections-Based Research
- Educational Outreach
- Art and Creative Writing Projects



# Why Internships?

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- Recent emphasis on "co-curricular learning"
- Supplement & enhance classroom learning while providing career-related experience
- Students with hands-on experience are more competitive
- Students gain from networking with professionals
- Helps mitigate cost of personnel / staffing



# Why Interdisciplinary?

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**Display of avian specimens and art by Walter A. Weber (Nov 2014)**



- 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
- Students become advocates for the importance of collections: journalism, business, law, education, political science / public policy...
- Collaboration with other departments = expanded possibilities for sources of funding

# Why Interdisciplinary?

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/?hpid=z11](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). The page header includes the Washington Post logo, a search bar, and a 'Sign In' button. The article title is 'We don't need more STEM majors. We need more STEM majors with liberal arts training.' with a subtitle 'The ability to draw from other disciplines produces better scientists.' Below the title are social media sharing icons for Facebook, Twitter, Google+, and Email, along with a 'Print' icon and a comment count of 389. The author's name is 'By Loretta Jackson-Hayes' with a profile picture and a bio: 'Dr. Loretta Jackson-Hayes is an associate professor of chemistry at Rhodes College in Memphis.' A photograph of Dr. Jackson-Hayes in a lab coat and safety goggles is visible. To the right is an advertisement for 'THE OPTIMIST' newsletter, featuring a pair of glasses reflecting a tropical scene and a 'GET IT' button. The Windows taskbar at the bottom shows the time as 10:16 PM on 3/17/2015.

Dr. Loretta Jackson-Hayes (Rhodes College):

<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>

# Advertising Internships:

- Brochure
- Word of mouth
- Social media: Facebook, Twitter, Tumblr (manage using HootSuite)
- Community bulletin board (online portal)
- Collections bulletin board (in Biology department)
- Direct targeting--professors in related disciplines
- Gold Key (Admissions) tours
- Campus "Involvement Fair" (fall)





# Structuring Internships

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Consider:

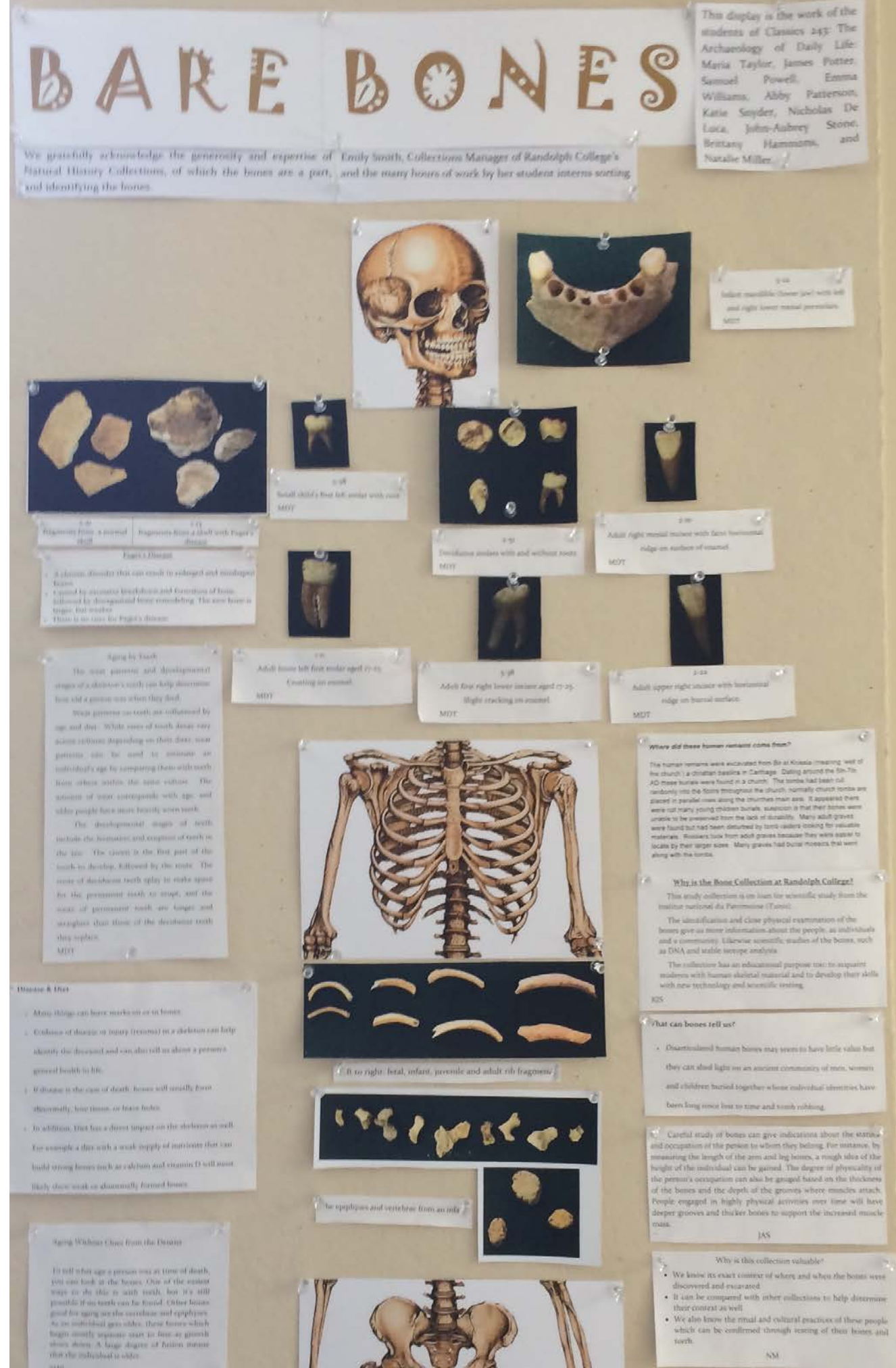
- Collection needs
- Student interests
- Unusual opportunities (including community outreach and networking)
- Joint effort with college's Career Development Center
- Academic requirements for credit



Interns participate in outreach to elementary and middle school students during the Randolph College Science Festival (SciFest).

# Academic Requirements at Randolph College NHCAP:

- 3 hours work / week *per hour of academic credit*
- Weekly workshop attendance (1 hour)
- Writing requirement: reflective paper
- Assigned relevant reading
- Public presentation or display (research projects)



# Other Options for Student Involvement:



- Non-credit internships (volunteer)
- Independent study (research projects)
- Work study (paid by academic department)

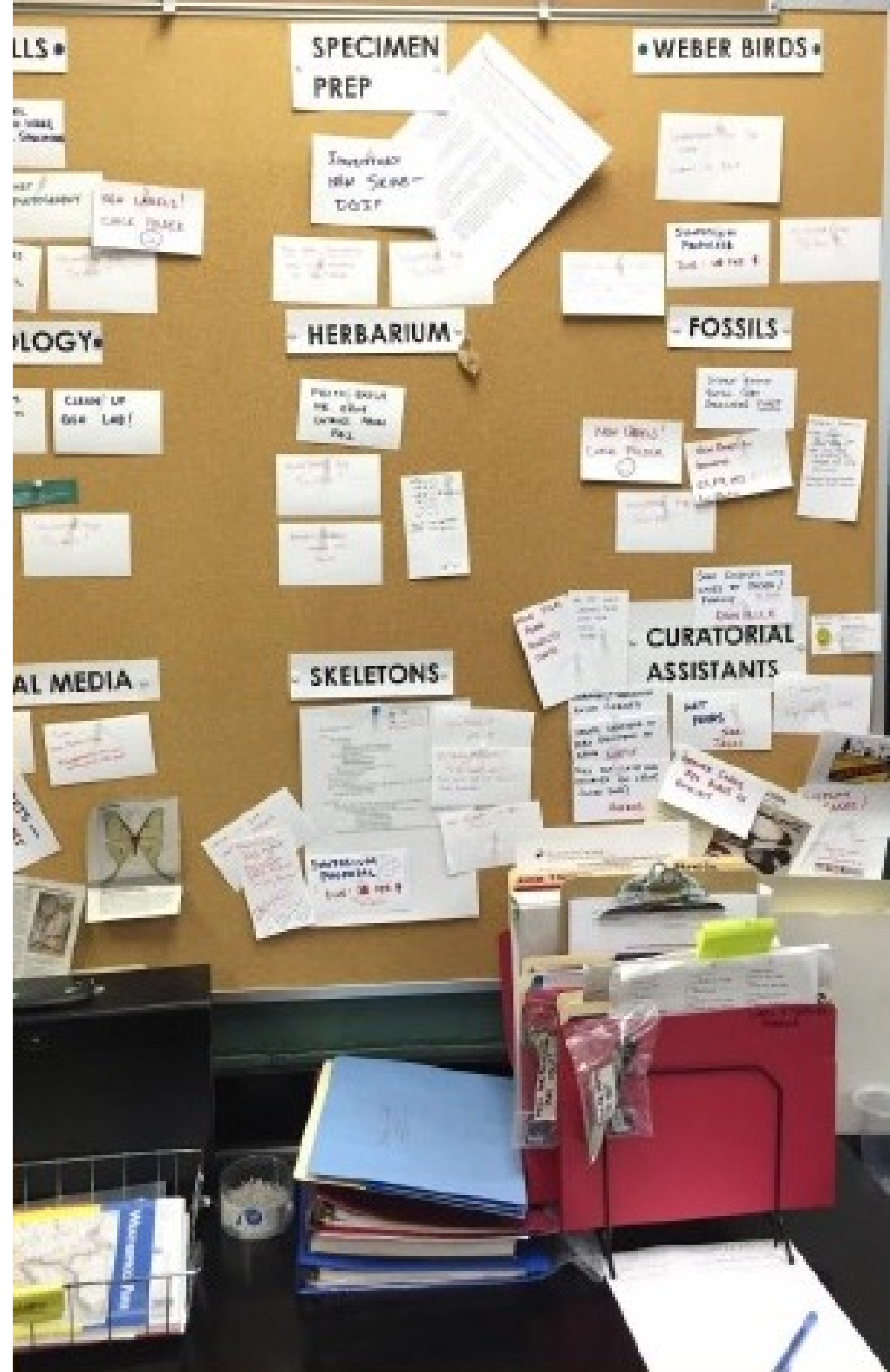


# Managing Internships

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## Create straightforward systems:

- Clear procedure sheets
- Reference binders
- Project folders
- Project task board
- Log of hours
- Specimen collecting kits
- User-friendly software! (We currently use eHive for online cataloging)



# Scheduling

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## Open workdays:

- students interact with other interns who have different tasks or projects

## Weekly & Monthly workshops:

- Weekly: teach collections management skills (digital photography, conservation, cataloging)
- Monthly: topics-based or career development



# Effective Internships

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- 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

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- **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 / tagging** (*environmental studies, geology, chemistry*)
- **Wet preps / fluid identification and maintenance** (*biology and chemistry*)
- **Website development** (*business / marketing, computer technology, graphic design, creative writing / journalism, sociology*)
- **Display design** (*art / graphic design, history, education, museum studies, marketing, creative writing, communications, philosophy*)
- **3-D replication and printing** (*art / graphic design, technology / engineering, computer science, physics*)
- **Virtual gift shop** (*business / marketing, art / graphic design, psychology*)

# Collections-Based Research Projects:

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## Forensics

- health, age, and gender data for archaeological remains, disarticulated skeletons
- DNA sampling and sequencing

## Archaeology

- Minimum number of individuals (MNI) for 6th-century burials at Bir-el-Knissia, Tunisia
- Palynology and phytolith analysis of historic farm sites (proposed)
- Historical & present-day ecology of Randolph College "back campus" (proposed)

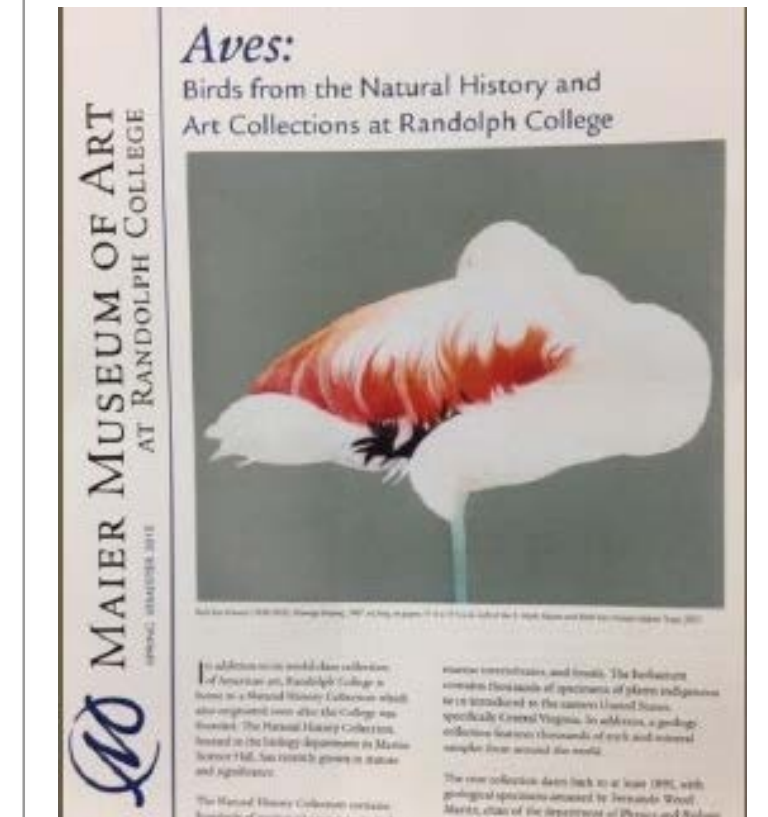
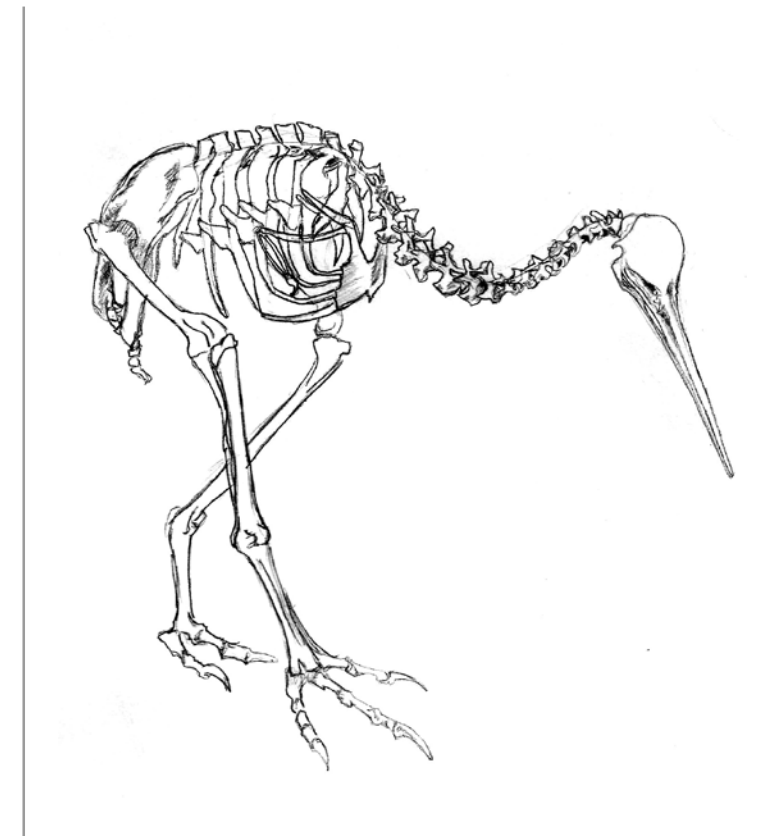
## Dendrochronology

- species and growth rates of trees on campus

## Field Ecology

- Pollinators in Botanic Garden and Organic Garden
- Species most at risk for window kills, roadkill in different seasons (salvage collections)
- Micro- and macro-invertebrate studies of local stream systems (possible)





*L-R: Opening reception for "Aves" at Maier Museum of Art; Kiwi skeleton by Khavya Pradhan; Exhibition feature in Maier Museum newsletter*

# Natural History + Art



# More about this program...



SCNet Webinar (March 2015): <http://scnet.acis.ufl.edu/content/designing-interdisciplinary-collections-internships-college-students>

RC NHACP Web Page: <http://naturalhistory.go.randolphcollege.edu/>

Facebook: <https://www.facebook.com/RandolphCollegeNaturalHistoryCollections>

Twitter: @RCNatHist

Tumblr: @RCNaturalHistory

# Acknowledgements:

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## Randolph College:

- Doug Shedd, Professor of Biology
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- The NHCAP Collections Team
- Randolph College faculty, including Ron Gettinger, Kristy Bliss, Adam Houlihan, Karin Warren, Sarah Sojka, Susan Stevens, Kathy Muehlemann, Peter Sheldon, and Ann Fabirkiwicz
- Dr. Bradley Bateman, President of Randolph College
- Carl Girelli, Dean of Randolph College
- Maryam Brown, Internship Coordinator
- RC Center for Student Research

## Other:

- Virginia Academy of Sciences (Digitization grant)
- Dr. Gil Nelson, Florida State University
- Dr. Anna Monfils, Central Michigan University

