

# NEWSLETTER

## ESA HISTORICAL RECORDS COMMITTEE

(ESTABLISHED 1944)

*Resources for the history of the Ecological Society of America  
and the history of ecology and allied sciences*

No. 2

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### Celebrating ESA and the History of Ecology in Baltimore, August 2015

Among the many activities celebrating ESA history at the Centennial meeting are the following: **Special Session 6** on [Ecology's Concepts: How Are They Used and Valued?](#) (Monday 8-10:00 p.m.); **Symposium 9** on [Fostering Transdisciplinary Science to Meet 21<sup>st</sup>-Century Challenges](#) (Tuesday 1:30-5:00); and **Organized Oral Session 80** on [External Influences on Ecological Theory](#) (Thursday, 1:30-5:00 p.m.).

In addition the following Organized Oral Sessions explore a diverse set of historical topics:

- OOS 3: [The ESA at 100](#): Historical Perspectives on Ecology and Ecological Management. Monday, 1:30-5:00 p.m. 315 Baltimore Convention Center.
- OOS 53: [Human Ecology – A Gathering of Perspectives](#): Portraits from the Past, Prospects for the Future. Wednesday, 1:30-5:00 p.m. 329 Baltimore Convention Center.
- OOS 50: [History and Its Uses in the NSF Long-Term Ecological Research Network](#). Wednesday, 1:30-5:00 p.m. 317 Baltimore Convention Center.

### More to Celebrate from the University of Georgia Archives!



Katherine Stein, Director of the Hargrett Rare Book and Manuscript Library, reports that the finding aids for The Institute of Ecology and the Walter E. Westman Papers at the University of Georgia are completed and are available online. The finding aid for ESA's administrative series should be online by the Centennial meeting. (Photo at left is the library's beautiful Rotunda.)

**The Institute of Ecology** was a collaborative enterprise aimed at broadening awareness of ecological science and its applications. Josephine Doherty and Arthur W. Cooper published a history of TIE in 1990, "The short life and early death of the Institute of Ecology: a case study," *Bulletin of the Ecological Society of America* 71(1):6-17. TIE's archives include taped interviews with several leading ecologists. The finding aid can be found here: <http://hmfa.libs.uga.edu/hmfa/view?docId=ead/UA97-066-ead.xml>

**Walter E. Westman** was among the forerunners in the area of biogeography to incorporate remote sensing into the study of plant communities. He also sought to show how ecological principles should influence policy-making in his 1985 book *Ecology, Impact Assessment and Environmental Planning*. At the end of his life Westman promoted gay rights and encouraged research into finding a cure for AIDS. The finding aid can be found here: <http://hmfa.libs.uga.edu/hmfa/view?docId=ead/UA97-070-ead.xml>

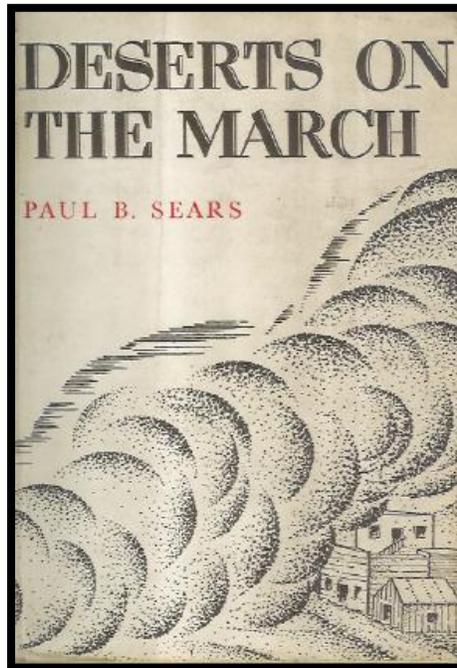
## What You Can Find in the Paul B. Sears Papers at Yale University

By Gene Cittadino, Gallatin School of Individualized Study, New York University. (Prof. Cittadino will be [speaking on Sears](#) in Baltimore in OOS 53 Human Ecology, on Wednesday, Aug. 12 at 2:10 p.m.)

The Paul Bigelow Sears Papers, MS 663, are at Yale University, Manuscripts and Archives, in the Sterling Memorial Library. The finding aid is available online (go to: <http://web.library.yale.edu/mssa> and then type in Sears's name or MS 663). The collection has four sections: general files, organizations, Yale files, and research and writings, but these are broad categories, so expect to find overlap among them. Sears lived a long life (1891-1990), had a long career, and tended to keep copies of his own letters, so there is a lot of material here (153 large boxes), and one can follow both sides of most correspondence, which is not always possible within the same archival collection.

Of particular interest to ecologists is Sears's correspondence with Raymond Pool, from whom he first took courses in ecology at Nebraska, Edgar Transeau, who was both colleague and mentor to Sears at his first position as instructor in botany at Ohio State, Henry Chandler Cowles, whose field course to Wisconsin in 1919 served as a strong source of inspiration for Sears, Charles Olmsted, a former Nebraska student of Sears who later discussed with him the fate of Chicago's post-Cowles

plant ecology program, Herbert Hanson, another Nebraska colleague with whom Sears carried on a life-long correspondence, and Stanley Cain, whom Sears first met because of their mutual interest in palynology and whose friendship later centered on their roles as leaders of conservation programs at Yale and Michigan. There is considerable correspondence as well with Homer Shantz, John Weaver, Murray Buell, Charles C. Adams, Frank Egler, and climatologist Warren Thornthwaite, among many others.



Sears's most active years within the ESA were from the late 1930s through the 1950s, during which time he served on numerous committees, organized conferences and symposia, encouraged more emphasis on human ecology, and worked hard to promote education in ecology and increase the visibility, status, and influence of ecology, often through cooperative programs with other societies, institutions, and agencies, such as AAAS, AIBS, NRC, and NSF.

There are some unexpected materials in the collection. During the First World War Sears was stationed at an Army base in Florida, where, as part of an aerial reconnaissance unit, he did pioneering work experimenting with aerial photography as a tool for vegetation study. He did not follow up on this work after the war, but the collection includes a number of his aerial photos of Florida vegetation along with photos of the biplanes from which he took them and drafts of a paper that he wrote on the value of aerial photography to vegetation study. After writing *Deserts on the March*, 1935, Sears became a kind of public intellectual, very much in demand on the lecture circuit for his views on conservation, natural resources, and land-use, and

equally in demand as a book reviewer and writer of popular articles. You will find transcripts of his public lectures as well as much correspondence regarding his many articles in periodicals and newspapers, including his prolific output of reviews for the *New York Herald Tribune* and the *Saturday Review of Literature*, for both of which he served as a regular book reviewer from the 1930s into the 1960s.

Sears's gift for public speaking was not lost on the new medium of radio, so there are also numerous transcripts of his radio talks during a period that extends from his first year at the University of Oklahoma, 1928, until the early 1950s at Yale. There is also much material related to Sears's long association with Fairfield Osborn and Osborn's Conservation Foundation, as well the Yale Conservation Program, 1950-1960, which was essentially inspired by Osborn and initially funded by the Foundation but declined rapidly after a promising beginning and did not survive Sears's retirement from Yale. Per-

haps unknown to many ecologists is Sears's association with the Atomic Energy Commission, first as one of several ecologists who served as consultants to the Commission in the 1950s and then as an active member of the Plowshare Advisory Committee, in essence a group of experts in a variety of fields charged with advising the Commission on its plans to use nuclear explosions for "peaceful" purposes, i.e. excavation of harbors and canals, mineral extraction, etc., most of which the committee and Sears himself approved.

[Ed. note] There is also a Paul B. Sears collection relating to desert ecology at the University of Arizona, Special Collections, Tucson AZ. A description of the collection is available here:

<http://speccoll.library.arizona.edu/collections/paul-bigelow-sears-collection>

## Interactive Maps: A Fun Way to Explore the Diverse Early Membership of ESA

By Alison Anastasio ([aea@uchicago.edu](mailto:aea@uchicago.edu)) and Julie Mulroy ([mulroy@denison.edu](mailto:mulroy@denison.edu))

HRC members and friends have been working for several years to make our society's historical records more visible and accessible for use by ecologists, historians and educators, among others. One of these efforts has involved putting ESA directory information from the predigital era into a database, allowing users to analyze, quantify, and visualize patterns relevant to ESA history. Results of the *Early ESA Directories Project* have been presented at the last three ESA meetings:

- Sally L. White, J. Mulroy, H. Balbach, "[An in-depth look at ESA's early membership: Continuity, contrasts, and surprises](#)," in [OPS 1 Ecologists Doing History](#) (Portland 2012);
- W. Reiners, A. Anastasio, and J. Mulroy, "[Reports from the ESA Annual Meetings](#)," *ESA Bulletin* 95(April 2014): 177-186 (Minneapolis 2013);
- Juliana C. Mulroy, "[Communities of early ecologists: The use of internet and archival resources to reconstruct ecologist communities at the founding of the Ecological Society of America](#)," in [OOS 11 Communities, Places, and American Ecology](#) (Minneapolis 2013);
- J. C. Mulroy and A. Anastasio, "[How a new society found its bearings: Membership demographics and interests during the Ecological Society of America's early years](#)," in [OOS 42 ESA's Struggles for Identity over the First Hundred Years](#) (Sacramento 2014).

The conversion of information previously available only in text form into a form allowing quantitative and visual analysis has heightened our awareness of the diversity of ESA's early membership, as we have demonstrated in the presentations listed above. Our goal has been to make this information available more broadly. Here

we present one example of how our databases allow us to examine ESA history in new ways, through **interactive maps** charting ESA's early membership. We sent the links to several map files to Sharon before the Meetings, and she found herself engrossed. We asked her to write up some of her findings below, but first we encourage you to explore the maps yourself.

***The maps may be found at the links below:***

1917 members: <https://batchgeo.com/map/f172bebd3c48ce55293712f483e41b77>

1923 members: <https://batchgeo.com/map/11684d930b13fe0d9d0d17a64d50ab5d>

1928 members: <https://batchgeo.com/map/439a4e1e5f8726664989412db14043b8>

All three membership years, in pie charts:

<https://batchgeo.com/map/3e9a499b1626c90f382c443550b20942>

[Either click on the link (Ctrl + Click) or paste the URL into your browser. Pins are placed based on City/State/Country, but each entry has more information about a member. You can zoom in to see all the individual entries for a specific location. **Click on a pin** to see members from that location; **scroll through** to see member profiles.]

***Here's how these maps can be used to generate research questions [from the Editor]:***

Alison and Julie's interactive maps spark many observations about the origins of ESA and ecology and the spread of this new science around the world. Here are a few nuggets that I pulled from the maps in about an hour.

It was tempting to start with Chicago-area members, since Chicago botanist Henry C. Cowles was a founding member of ESA and an important teacher. Photos of Cowles's field courses featured a number of women students (see below from the University of Chicago Photographic Archive, #8-01882, Special Collections Research Center, University of Chicago Library).

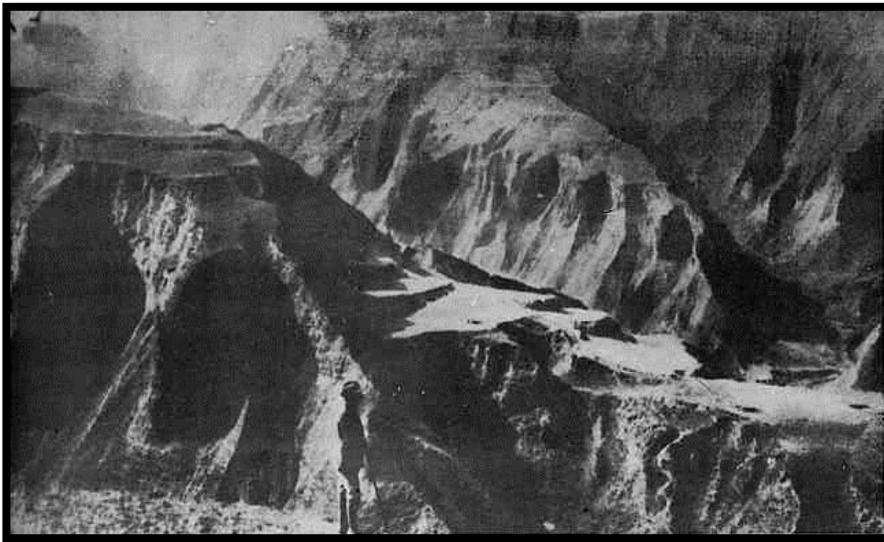
What became of them? Checking the membership in the Chicago region turned up several women members who were high school teachers and as well as a nun, Sister Mary O'Hanlon, who was professor of botany at Rosary College in River Forest, Illinois. I'd need to do more research to find out if these women trained with Cowles, but it seems likely that many of the women in Cowles's class, if they continued with careers, did so as school teachers and faculty of local colleges. One wonders how the experience with Cowles shaped their own approaches to teaching. While these Chicago-area women are unknown to me, a few early women members became prominent in ESA. E. Lucy Braun appears on the 1917 map at the University of Cincinnati and was a charter member of ESA. She would become the first woman president of ESA in 1950. Her PhD research on the physiographic ecology of the Cincinnati region was influenced by



Cowles, whom she thanked in her thesis.

The maps also reveal how much of the early membership came from various fields of practical or economic biology. This explains the large cohort located in Washington, D. C., where 30 of the 31 members hailed from various government branches – the Forest Service, Department of Agriculture, Bureau of Fisheries, U.S. Biological Survey – or from the U.S. National Museum. Looking around the country, the USDA and Forest Service connections are ubiquitous. We notice that the first member to appear in Alaska, in Fairbanks, worked at an experimental station for the U.S. Biological Survey and listed his job as being “in charge of reindeer.” We can appreciate how important it must have been for the establishment of ecology (and of the ESA) that federal and state governments had been so active from the late-19<sup>th</sup> century in creating infrastructure to promote research and education in agriculture, forestry, fisheries and other areas of applied biology.

We also see that several listings outside the U.S. had a practical focus, in some cases revealing that American



scientists were traveling to other countries to address serious environmental problems. Walter Lowdermilk, who worked for the U.S. Conservation Service, turns up in 1923 at the University of Nanking, where he was working to avert famine. Lowdermilk’s studies of soil erosion, based on extensive travels in 1938-39 as well as his earlier travels in China, were summarized in his classic essay on conservation, *Conquest of the Land through Seven Thousand Years* (1942; 1948). (Left, a photograph of extensive erosion in China.)

Others were bringing the new science of ecology from the U.S. to their native lands. From the 1923 and 1928 maps, we note with fascination the addition of Japanese members Chukichi Harukawa and Hachiro Yuasa. Interestingly, both had taken their PhDs at the University of Illinois, where they studied entomology. Yuasa studied under Victor Shelford. Harukawa and Yuasa in turn trained Syunro Utida (1913-2005), a Japanese population ecologist known for his work on host-parasite dynamics. Since Utida was an honorary member of ESA, there is an obituary in the *Bulletin* in October 2006, which includes information about his teachers. It would be an extremely interesting project to track how American ecologists trained students who then established laboratories in their own nations. Both Harukawa and Yuasa achieved eminence in Japan.

These questions were piqued by exploring the maps, aided by a few google searches and checks of the HRC website to flesh out the details. The maps draw us into the lives of the early ESA members in a way that a membership list by itself does not do. We hope you will find them stimulating. Below, Julie and Alison discuss the maps and their ambitions to create a rich database on early ESA members. [S.K.]

### *How Alison and Julie made the maps*

We got data for this module from ESA membership directories in 1917 (charter members plus those elected in December, 1916), 1923, and 1929. Most of the analysis tools we used were freely or commonly available. The process is straightforward, even if you don't know how to code or aren't well-versed in bioinformatics.

Pdfs of ESA directories (ESA 1917, 1923, 1929) were downloaded from JSTOR, translated into text with Online OCR (<http://www.onlineocr.net/>), and curated in Excel. This flat file of data from the membership directories constitutes “the database.” You can download the membership directory files and database here: <https://www.dropbox.com/sh/v2ukfzl26xglreq/AAD9ooDbBs2QvAa7JhMZ4lgt?dl=0>

We visualized location data with BatchGeo (<http://batchgeo.com/>) – a great location-visualization program available online, where you can enter your own data by uploading an Excel file, or copy and paste raw data directly into the web interface. We pasted a few columns from the database (name, address, position, department/institution) and quickly created a visualization of our earliest ESA members.

***Make your own map*** using address or lat/long data by just pasting from Excel.

You don't even have to create an account with BatchGeo (<http://batchgeo.com/>) to copy and paste columns of location data into their online program and create your own maps. But if you get a free trial membership, you get a few more perks, such as a larger limit on number of individual data points that can be mapped. It is literally as easy as copy + pasting from your excel file of names and addresses.

If you save your maps as an image file (take a screen shot, or if using a trial membership at BatchGeo, you can export a variety of files), you can easily turn a handful of them into an animated gif (google “make an animated gif” for free options online) for a fun qualitative look at changes in geographic distribution over time, e.g. <http://partspermillion.tumblr.com/post/115995386984>

***Play more with the data*** by downloading the database flat files.

Download the current databases from this Dropbox folder

(<https://www.dropbox.com/sh/v2ukfzl26xglreq/AAD9ooDbBs2QvAa7JhMZ4lgt?dl=0>).

### ***Conclusion***

These maps were made with a freely available map interface and six columns of data. With a dynamic database, creative programmers, and systems thinkers, a multitude of questions can be addressed using the early membership data as well as other historical records.

**We are looking for someone who is interested in taking the database and related projects to the next level.** We need someone who has the scripting and SQL skills to get the database set up with a simple interface where others can add and download data easily. Contact Julie Mulroy or Alison Anastasio if you have ideas or personal interest. Alternatively, someone with experience with relational databases may be able to advise us about next steps.

The HRC Newsletter welcomes contributions from HRC members and friends. Please send Newsletter items to Sharon Kingsland at

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