



# Small Collections Network

Serving, Supporting, Connecting Small Natural History Collections

## SCNet: Supporting Digitization in Small Collections

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*The Contribution of Small Natural History Collections in the 21st Century*

SPNHC 2015  
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Gainesville, Florida

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## Why Focus on Small Collections?



Ensure inclusion in worldwide digitization efforts

Regionally and/or taxonomically focused

May be the best representation of biodiversity hotspots (intensely sampled)

Rich ecological data

Full emersion by students into collections management and museum sciences

Alleviate isolation often experienced by curators/collections managers/directors

- Within institution
- Within digitization community

## Mobilizing Dark Data

In an early press release announcing the first round of Advancing the Digitization of Biodiversity Collections (ADBC) awards (July 8, 2011), the National Science Foundation (NSF) several times referenced the importance of what it called “**dark data**”—data that are essentially inaccessible to most biologists, policy-makers, and the general public.

**The darkest of these “dark data” may well be locked up in small collections that lack sufficient resources to mobilize them for broad use.**

**Tall Timbers Research Station  
Lucien Harris  
Butterflies of Georgia  
Lepidoptera Collection**





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## About the Small Collections Network (SCNet)



- Sponsored by iDigBio and SPNHC
- Designed to provide a forum and support network for those with like issues in small collections
- Grew from regular meetings of a small group of herbarium curators in single-collection institutions, all of which manage their collections as a tiny part of their overall position and usually in isolation from others in their institutions, then blossomed into a much larger initiative
- Organized to ensure pathways for small collections and institutions to participate in the national digitization initiative



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## Activities

Website: <http://scnet.acis.ufl.edu/>

Webinars: <http://scnet.acis.ufl.edu/tags/webinar-series>

Workshops: <http://scnet.acis.ufl.edu/taxonomy/term/2>

Listserv: <http://scnet.acis.ufl.edu/tags/listserv>

Twitter: @iDigGilNelson



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## Webinar Series

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### Introduction to SCNet's Webinar Series

SCNet and iDigBio are pleased to announce a series of webinars centered on supporting small collections and establishing SCNet as a collaborative resource for small collections and the professionals who manage them. Each webinar in this series will be held 3:00-4:00 p.m. EST on the dates shown below. Meetings are virtual and accessible online at <https://idigbio.adobeconnect.com/scnet>. No special software outside of an internet browser is required to access the virtual meeting room.

[Read more](#)

### Biological Field Stations as Repositories of Biodiversity Data

**30 April 2015**

**3:00-4:00 p.m. EDT**

**Virtual meeting place:** <https://idigbio.adobeconnect.com/scnet>

**Biological Field Stations as Repositories of Biodiversity Data**

**Presenter:** Hilary Swain, Executive Director, Archbold Biological Station

[Read more](#)

### Designing Interdisciplinary Collections Internships for College Students

**19 March 2015**



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## Workshops and Symposia

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### Small Collections Symposium at SPNHC 2015

iDigBio, SCNet, and NSCA (Natural Science Collections Alliance) are pleased to sponsor a second small collections symposium at the upcoming [SPNHC 2015 conference](#), to be held 17-23 May 2015 in Gainesville, FL. iDigBio has established a wiki for the symposium that includes the annotated agenda as well as a brief list of presentations:

[https://www.idigbio.org/wiki/index.php/Small\\_Collections\\_Symposium\\_SPNHC\\_2015](https://www.idigbio.org/wiki/index.php/Small_Collections_Symposium_SPNHC_2015). Please see the [annotated agenda](#), which includes abstracts, for more detail about the sessions. Remote attendance is available for those who cannot attend in person. Login as guest to <https://idigbio.adobeconnect.com/scnet> to participate. The sessions will also be recorded and made available on the wiki as will PDF copies or the PowerPoint presentations.

For more information, contact symposium convenors Anna Monfils ([monfi1ak@cmich.edu](mailto:monfi1ak@cmich.edu)) or Gil Nelson ([gnelson@bio.fsu.edu](mailto:gnelson@bio.fsu.edu)).

See conference reports from 2014 here: <http://www.brightcopy.net/allen/cfnl/28-2/index.php#/16> and <http://www.brightcopy.net/allen/cfnl/28-2/index.php#/34>.

[Read more](#)

### SPNHC 2014 Small Collections Symposium

SCNet and iDigBio are pleased to host the Recruiting, Retaining, and Supporting Small Collections in Digitization Initiatives symposium at SPNHC 2014. The symposium is scheduled for Wednesday, 25 June, 9:00 a.m. to 4:00 p.m. BST.

Please see the [workshop wiki](#) for the agenda, abstracts, presentations, recordings, and further information.

[Read more](#)



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## Listserv

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## Follow SCNet on Twitter

Get SCNet updates and announcements via Twitter. Follow Gil Nelson @iDigGilNelson.

[Read more](#)

## Listserv and Twitter

SCNet distributes notices of activities via Twitter and an iDigBio-sponsored listserv.

To receive automated meeting/webinar announcements, reminders, and other notices, or to post topics to the list, please join the SCNet listserv by sending an email to [listserv@lists.ufl.edu](mailto:listserv@lists.ufl.edu) with the following command in the body of the email:

subscribe IDIGBIOSCNET-L first\_name last\_name.

Meetings and seminars are also announced via Twitter. Follow [@idiggilnelson](#).



# Defining Small

- Number of specimens (varies by discipline and prep type)
- Academic vs. Museum
- Staff size
- Visibility/profile
- Institutional isolation (alienation?)
- Budget (whether there is one or not)

**Why don't we just ask somebody!**

2014  
(N=143)

#	Answer	Response	%
1	fewer than 5000 specimens	11	8%
2	between 5000 and 25,000 specimens	25	17%
3	between 25,000 and 100,000 specimens	28	20%
4	between 100,000 and 200,000 specimens	17	12%
5	between 200,000 and 300,000 specimens	9	6%
6	between 300,000 and 500,000 specimens	5	3%
7	between 500,000 and 1 million specimens	20	14%
8	1 to 2 million specimens	13	9%
9	2 to 3 million specimens	2	1%
10	5 to 10 million specimens	3	2%
11	More than 10 million specimens	5	3%
12	3 to 5 million specimens	5	3%
	Total	143	100%

45%

57%

18%

Next smallest  
~113,000

## 2015 Survey (n=~275)

\* Rough Preliminary Estimates of Sizes of Small Collections by Organism

Organism	Largest	Smallest	Average
Arachnids	174,000	50	25,365
Crustaceans (lots)	12000 (lots)/18617 (specimens)	5 (specimens)	4850 (lots)/4890 (specimens)
Myriapods	6,500	10	1,352
Butterflies and moths	350,000	5	41,403
Other insects	700,000	5	119,523
Marine invertebrates	300,000	30	78,695
Mollusks	2,000,000	10	217,362
Other arthropods and invertebrates (lots)	5,400	50	12,858
Reptiles and amphibians	60,000	5	7,931
Fishes (lots)	86,000	11	24652 (lots)/219103 (specimens)
Mammals	42,000	10	7,590
Birds	64,000	500	10,819
Invertebrate fossils	2,200,000	20	97,224
Vertebrate fossils	150,000	10	18,938
Fossil plants and/or pollen	5,000	5	6,511
Vascular plants	325,000	100	42,810
Algae	90,000	40	4,427
Fungi	900,000	5	36,593
Bryophytes	242,000	20	12,228
Lichens	115,000	20	5,598

Huge deviations

Next smallest  
~100,000

73% of herbaria  
have fewer than  
50,000 specimens

\*These are very rough figures that needs lots more analysis.

# Status of Digitization in Small Collections

2014

3. How would you best describe your facility?				
#	Answer		Response	%
1	Private, free-standing collection		15	10%
2	University-affiliated		99	66%
3	College-affiliated		9	6%
4	State, county, city or other government-supported institution		21	14%
5	Other		5	3%
	Total		149	100%

2015

2. Which of the following best describes your institution?			
Answer		Response	%
Publicly funded		201	73%
Privately funded, but open to the public		52	19%
Privately funded and not open to the general public		14	5%
Privately held, individual collection		8	3%
Total		275	100%

# Status of Digitization in Small Collections

2014

**4. Which of the following best describes your collection? Check all that apply.**

Answer	Response	%
Botany/Herbarium (Plants)	77	53%
Herpetology (Reptiles & Amphibians)	25	17%
Ichthyology (Fishes)	27	19%
Lepidoptera (Butterflies & Moths)	22	15%
Mammalogy	34	23%
Malacology (Mollusks)	24	17%
Marine Invertebrates	17	12%
Ornithology (Birds)	29	20%
Paleontology	28	19%
Invertebrate Paleontology (Invertebrate Fossils)	30	21%
Paleobotany & Palynology (Fossil Plants & Pollen)	21	14%
Vertebrate Paleontology (Vertebrate Fossils)	27	19%
Vertebrates	26	18%
Invertebrates and/or Arthropods (Insects)	43	30%
Other. Please describe.	24	17%
Mycology	20	14%

# Status of Digitization in Small Collections

6. Which of the following best describes your current status? Please check all that apply.

2014

Answer	Response	%
Facility Director	25	18%
Collections Curator/Manager	92	65%
Faculty Supervisor	15	11%
Graduate Student		
Coordinating Collections	5	4%
Volunteer	7	5%
Other. Please explain.	19	13%
Undergraduate Student Coordinating Collections	1	1%
Retired Faculty Coordinating Collections	5	4%

3. What is/are the primary role(s) you play at your institution? Check all that apply.

2015

Answer	Response	%
Collections manager	168	61%
Director	65	23%
Faculty member	108	39%
Taxonomist	76	27%
Domain scientist	29	10%
Ecologist	31	11%
Other. Please explain.	81	29%

# Status of Digitization in Small Collections

9. Given the time available for all of the tasks in your job description, what is the priority assigned by your institution or within your job description to managing your collection? (It is understood that this priority is not an indictment, criticism, or assignment of value to the importance of the collection, but rather a real-life assessment of the prioritization of collection management duties given other important and competing demands.)

Answer	Response	%
Very low	50	22%
Low	50	22%
Somewhat low	31	14%
Neither high nor low	34	15%
Somewhat high	33	15%
High	19	8%
Very high	10	4%
Total	227	100%

# Status of Digitization in Small Collections

2014

**8. Are you currently digitizing your collections or have plans to begin digitization in the very near future?**

#	Answer	Response	%
1	Yes	125	88%
2	No	17	12%
Total		142	100%

2015

**10. Are you currently databasing your collection?**

Answer	Response	%
Yes	192	84%
No	11	5%
No, but plan to.	25	11%
No, the collection is databased and no longer growing.	0	0%
Total	228	100%

2015

**11. Are you currently imaging your collection?**

Answer	Response	%
Yes	100	44%
No	62	27%
No, but plan to.	65	29%
No, our collection is already completely imaged.	0	0%
Total	227	100%



# Status of Digitization in Small Collections

**13. How much of your collection is keystroked and imaged and available in an internal electronic searchable database?**

2014

Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
% available	0.00	100.00	14.84	27.24	79

**14. How much of your collection is keystroked, imaged and available in an electronic searchable database that can be accessed outside of your institution?**

2014

Answer	Min Value	Max Value	Average Value	Standard Deviation	Responses
% available	0.00	100.00	13.60	27.95	60

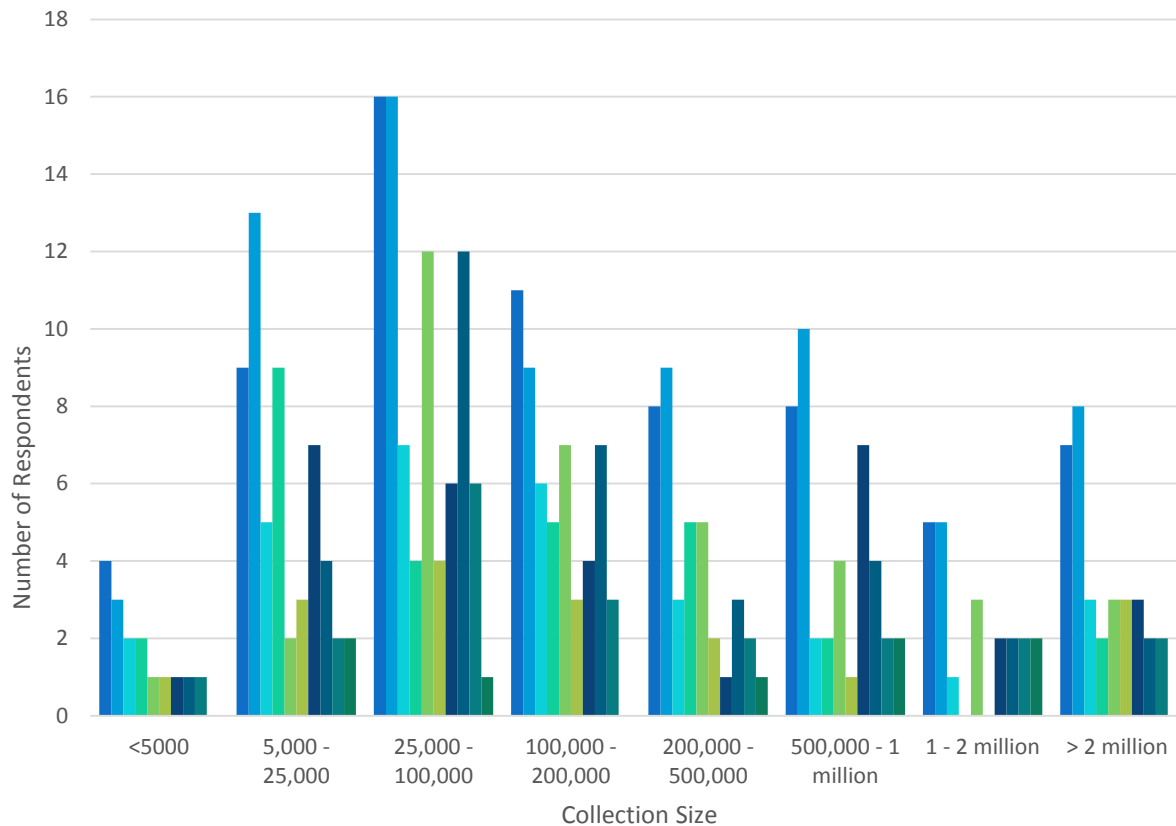
**13. Are you contributing your specimen data or images to a data aggregator for search and display via the internet?**

2015

Answer	Response	%
Yes	104	47%
No	42	19%
Not yet, but we plan to.	76	34%
Total	222	100%

2014

### Biggest Challenges to Digitization



- Money
- Time
- Required expertise
- Necessary equipment
- IT support
- Technical expertise
- Reliable workforce
- Lack of institutional support
- Sustainability
- Other

# **Impediments to Digitization for Small Collections**

**Physical space (including adequacy, size, environment)**

**Funding**

**Personnel (including training, retention, staffing)**

**Time**



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# iDigBio

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