Behavioral data - management, archiving, and sharing: advantages of using a campus library online repository

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ABSTRACT: An often-overlooked aspect of scientific research in animal behavior has been the preservation of data and gray literature (unpublished products) that lie behind the scenes of the research. If preserved, many of these materials could likely be of use to the present and future scientific community. Institutional repositories of college and research libraries can play an important role in this regard. Unlike lab web pages, institutional repositories provide a permanent location for research products. Files are stored in optimal formats and are managed such that access will be possible far into the future. In addition, repositories provide support for the creation of descriptive information (metadata) for making mounted works findable by others (e.g. through search engines). Restrictions on access (embargo periods) can be placed. A research lab at Indiana University is using their campus institutional repository to archive data and gray literature from long-term studies on songbird behavior. Examples of items preserved are protocols, yearly goals, and field notes. The group is currently working to preserve various data, summaries, and media related to their research.

What is an Institutional Repository?

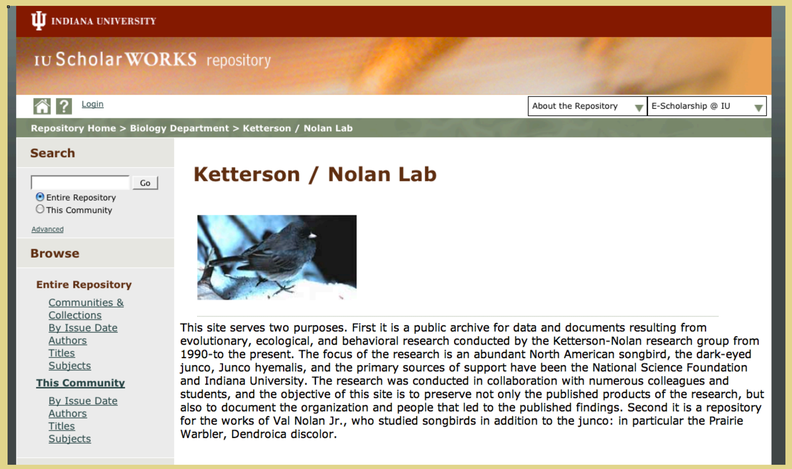
Many colleges and university campus libraries have an Institutional Repository (IR). An IR is an online, open access collection of scholarly products produced by an institution.

What types of documents can be housed in an IR?

Digital documents of a wide variety of formats may be mounted in an IR. Traditional research products (research articles) may be included, but the IR can accept data, sound/ video files, unpublished work (gray literature) such as presentations, posters, lab protocols, theses and dissertations.

Example

The Ketterson/Nolan lab at Indiana University is using their campus IR, IUScholarWorks, to archive and share various unpublished products of their research. The group has preserved protocols, yearly goals, and field notes of long term studies on songbird behavior. Future plans include the preservation of various electronic datasets as well as educational media.



Documents preserved from 30 yr. study of the dark-eyed junco

Year	Goals - Goals for each field season	Instructions - instructions for field work	People- People involved in the research study	Results - data files and data summaries
1991	goals goals II	none	team photo	To obtain data, please contact Dr. Ellen Ketterson www.indiana.edu/~kettlab/
1992	goals	nest	none	
1993	none	nest		
1994	goals	processing birds implant scheme		
1995	goals goals II goals III	nest processing birds implant scheme implant remove		
1996	goals long goals short goals shortII	nest processing birds processing birds suppl DNA processing blood after fledging implant scheme implant remove process embryo		

Processing birds 2010

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Title:	Processing birds 2010
Author:	Ketterson, Ellen
Date:	2010
Abstract:	General methods for in-hand processing of Dark-eyed Juncos (Junco hyemalis) at Mountain Lake Biological Station, Pembroke, Virginia. Includes specific measurements and other data taken from each bird.
Location:	http://hdl.handle.net/2022/8231

Files	Size	Format	View
process2010.pdf	90.30Kb	application/pdf	View/Open

The following license files are associated with this item:

Original License

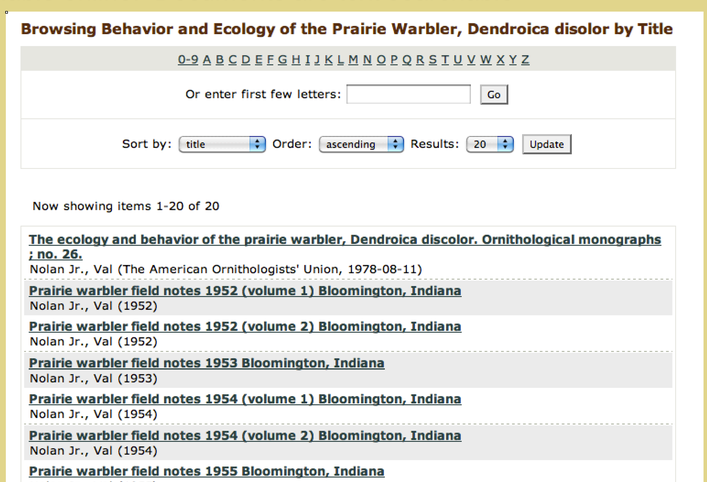
This item appears in the following Collection(s)

2010 Instructions [3]

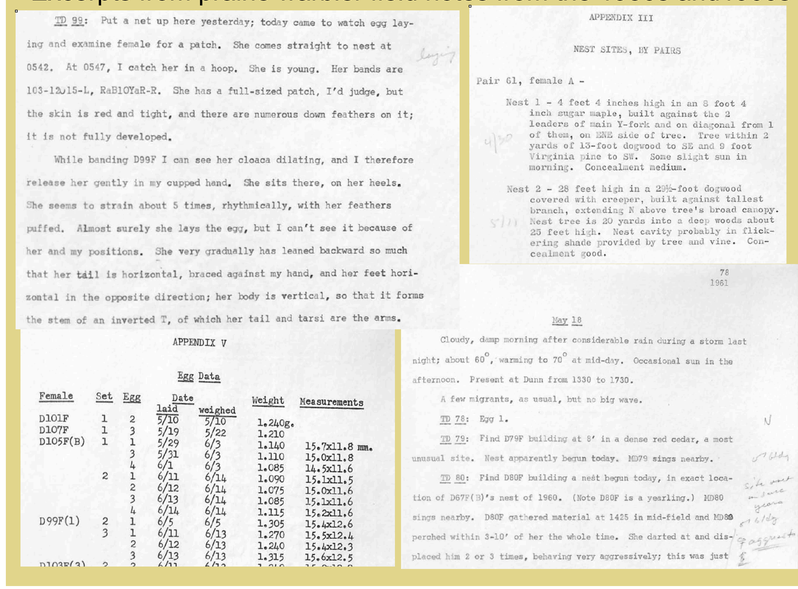
Show full item record

Archived prairie warbler field notes from the1950's and 1960's

Previously only in paper format, now preserved in digital format and available online. Documents are text searchable



Excerpts from prairie warbler field notes from the 1950s and1960s



TD 98: Put a net up here yesterday; today came to watch egg laying and examine female for a patch. She comes straight to nest at 0542. At 0547, I catch her in a hoop. She is young. Her bands are 103-12015-L, RaB10YaR-R. She has a full-sized patch, I'd judge, but the skin is red and tight, and there are numerous down feathers on it; it is not fully developed.

While banding D99F I can see her cloaca dilating, and I therefore release her gently in my cupped hand. She sits there, on her heels. She seems to strain about 5 times, rhythmically, with her feathers puffed. Almost surely she lays the egg, but I can't see it because of her and my positions. She very gradually has leaned backward so much that her tail is horizontal, braced against my hand, and her feet horizontal in the opposite direction; her body is vertical, so that it forms the stem of an inverted T, of which her tail and tarsi are the arms.

APPENDIX V

Egg Data

Female	Set	Egg	Date laid	Date weighed	Weight	Measurements
D101F	1	2	5/10	5/10	1.240g.	
D107F	1	3	5/19	5/22	1.210	
D105F(B)	1	1	5/29	6/3	1.140	15.7x11.8 mm.
		3	5/31	6/3	1.110	15.0x11.8
		4	6/1	6/3	1.085	14.5x11.6
	2	1	6/11	6/14	1.090	15.1x11.5
		2	6/12	6/14	1.075	15.0x11.6
		3	6/13	6/14	1.085	15.1x11.6
		4	6/14	6/14	1.115	15.2x11.6
D99F(1)	2	1	6/5	6/5	1.305	15.4x12.6
	3	1	6/11	6/13	1.270	15.5x12.4
		2	6/12	6/13	1.240	15.4x12.3
		3	6/13	6/13	1.315	15.6x12.5

APPENDIX III

NEST SITES, BY PAIRS

Pair G1, female A -

Nest 1 - 4 feet 4 inches high in an 8 foot 4 inch sugar maple, built against the 2 leaders of main Y-fork and on diagonal from 1 of them, on ENE side of tree. Tree within 2 yards of 13-foot dogwood to SE and 9 foot Virginia pine to SW. Some slight sun in morning. Concealment medium.

Nest 2 - 28 feet high in a 2½-foot dogwood covered with creeper, built against tallest branch, extending N above tree's broad canopy. Nest tree is 20 yards into a deep woods about 25 feet high. Nest cavity probably in flickering shade provided by tree and vine. Concealment good.

78
1961

May 18

Cloudy, damp morning after considerable rain during a storm last night; about 60°, warming to 70° at mid-day. Occasional sun in the afternoon. Present at Dunn from 1330 to 1730.

A few migrants, as usual, but no big wave.

TD 78: Egg 1.

TD 79: Find D79F building at 8' in a dense red cedar, a most unusual site. Nest apparently begun today. M979 sings nearby.

TD 80: Find D80F building a nest begun today, in exact location of D67F(3)'s nest of 1960. (Note D80F is a yearling.) M980 sings nearby. D80F gathered material at 1425 in mid-field and M980 perched within 3-10' of her the whole time. She darted at and displaced him 2 or 3 times, behaving very aggressively; this was just

Advantages of using an IR

1. **Fulfills archiving and sharing function as described in NSF Data Management Plan guidelines**
2. **Long term preservation**
   - Stable/permanent site for the products of research
   - Documents are managed by the library such that if file formats change library staff will work to maintain the items in formats that are retrievable and readable, each document given a permanent URL.
   - Items will persist for use by the research community for perpetuity.
3. **Secure, backed up storage**
4. **Increases accessibility to your research**
   - Documents in an institutional repository are open access (open to the world with no fee).
5. **Increases discovery of your research**
   - Documents are findable via search engines.
   - Descriptive information (metatdata) is assigned to each item enhancing discovery through search engines. Data files, for example can be assigned a title, abstract, author, keywords, subjects and other categories such that another researcher can locate and interpret what the file contains.
   - In some formats (e.g. pdf files) the full text of the documents can be made searchable