

Beyond the research data: acquiring and preserving the personal archives of Canadian scientists



Creighton Barrett
Digital Archivist, Dalhousie University Archives

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European Molecular Biology Laboratory, Heidelberg, Germany



PERSONAL ARCHIVES

n. ~ 1. Documents created, acquired, or received by an individual in the course of his or her affairs and preserved in their original order (if such order exists). - 2. Nonofficial documents kept by an individual at a place of work. ([SAA glossary](#) definition for “personal papers”)

Catherine Hobbs: “Personal fonds contain the documentation of individual lives and human personality...There are here glimpses of the inner soul as well as its outer manifestation in public activities.” ([Archivaria 51 \(Fall 2001\): 126](#)).

AGENDA

- Research activities and archiving at Dalhousie University
- Personal archives of scientists (case studies)
- Summary of general challenges
- Long-term solution: RDM + personal archives + PAIMAS + OAIS
- Other recommendations

DALHOUSIE UNIVERSITY



DALHOUSIE UNIVERSITY

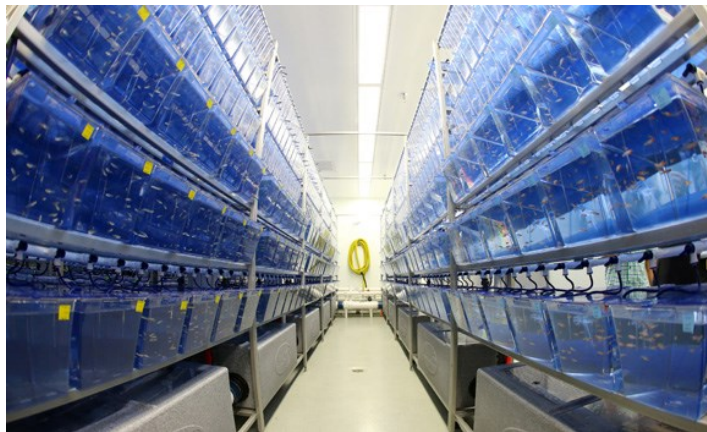
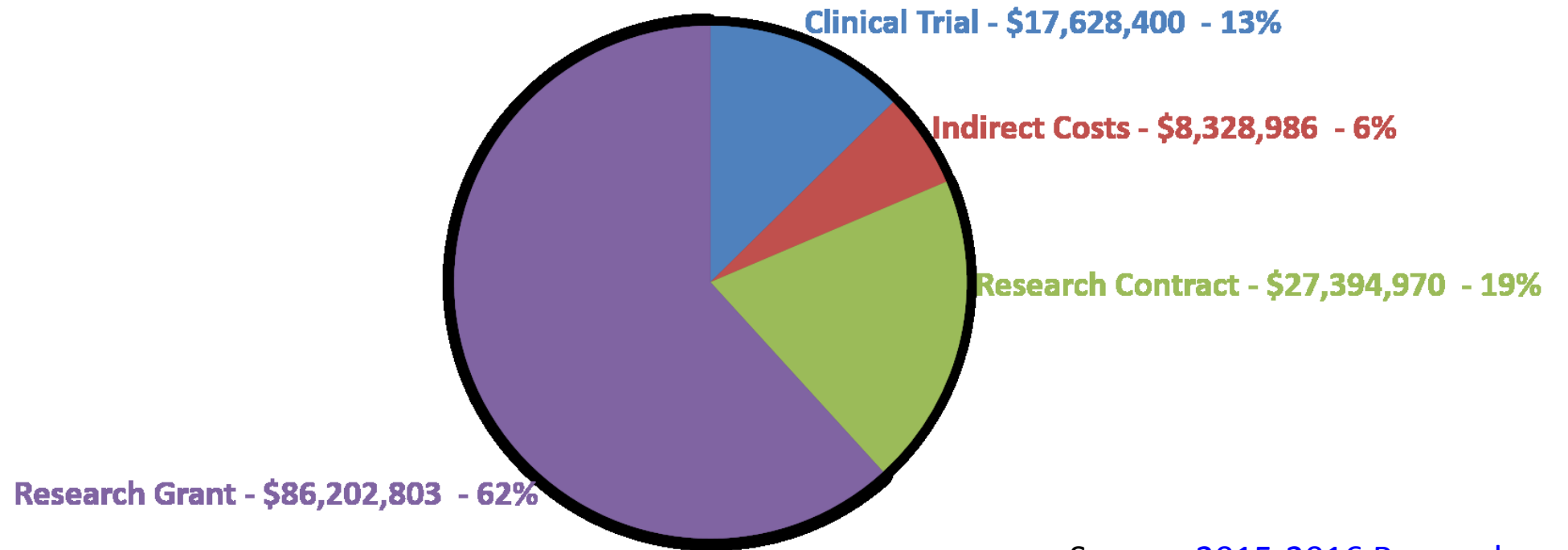


Photo sources: Stock photography from Dalhousie University website

DALHOUSIE UNIVERSITY

2015/2016 FUNDING (\$139,555,158)



Source: [2015-2016 Research and international development funding annual report](#)

DALHOUSIE UNIVERSITY ARCHIVES



Photographs by Creighton Barrett and Michele Charleton

DALHOUSIE UNIVERSITY ARCHIVES - TRENDS

- Acquisition of “hybrid” collections (analogue and digital material)
- Digital preservation and digital forensics – research and development
- Processing priorities driven by monetary appraisal commitments
- [Archives Catalogue and Online Collections](#)
- Research data management planning

CASE STUDIES

INTERSECTION OF RESEARCH DATA AND PERSONAL ARCHIVES – WHY DOES IT MATTER?

- Good science doesn't happen simply by managing the funding – good science happens by **managing the research data**
- Good scientific archives won't exist simply by managing the research data – **good scientific archives are created by managing the research data and the personal archives of scientists**
- Research data gets more resources than personal archives...

CASE STUDIES

- F. Ronald Hayes – zoologist
- Elisabeth Mann Borgese – marine law and policy expert
- Ransom Myers – marine biologist and mathematician
- Bill Freedman – environmental scientist and conservationist

F. RONALD HAYES

- Zoology professor who established Dalhousie Institute for Environmental Studies (now SRES)
- Studied fish bacteria in Canada and the United States
- Pioneering work: used radioisotopes to study lake processes
- Personal archives contains computer punch tape and edge-notched cards with research data

F. RONALD HAYES FONDS – ACQUISITION

- Personal archives acquired from unknown donor in 1996
- Custodial history unknown
- No donation agreement – i.e., no transfer of ownership
- Material in unprocessed backlog until 2011
- Research data processed as part of personal archives, not described in data repositories

F. RONALD HAYES FONDS – DESCRIPTION

- 50 linear centimetres of textual records (1926-1974, predominate 1955-1959)
 - Fish and bacteria research files – 34 cm
 - Correspondence – 3 cm
 - Laboratory experiments and teaching material – 10 cm
 - Publications – 3 cm

F. RONALD HAYES FONDS – SAMPLE ARCHIVAL DESCRIPTIONS

- Tissue respiration experiment. – [ca. 1950s]. – 2 pages. MS-2-695, Box 1, Folder 13
- Computer tapes for fish productivity and bacteria papers. – 1962. – 7 boxes of punch tape. MS-2-695, Box 2, Folder 4
- Lake productivity data. – [195?]. – 103 computer cards. – 1 index card. MS-2-695, Box 2, Folder 5

F. RONALD HAYES FONDS – PRESERVATION



Computer tapes for fish productivity and bacteria papers, MS-2-695, Box 2, Folder 4

LAKE PRODUCTIVITY			
		0.77	0.35
Name	Superior	pH	7.4
Loc	-	MO alk	46
Lat	Long	Cond	-
Ref		Ca ppm	15.1
		Mg ppm	4.4
Area Km ²	82,400	Log	4.916
Mean dep m	148.6	Ca mm/l	j 1.1
Max dep m		Mg mm/l	k 0.7
Colour	4	Ca + Mg	
Turb	0	% org sed	-
Secchi d	-	Shen. Sed. PI	0.73
Res. on wrap	57.	Fish PI	0.17
		Bac in sed	-

Lake productivity data, MS-2-695, Box 2, Folder 5

Photographs by
Domenic Rosati

ELISABETH MANN BORGESSE



Photograph of Elisabeth Mann Borgese on a television program, [MS-2-744, Box 237, Folder 30, Item 1](#)

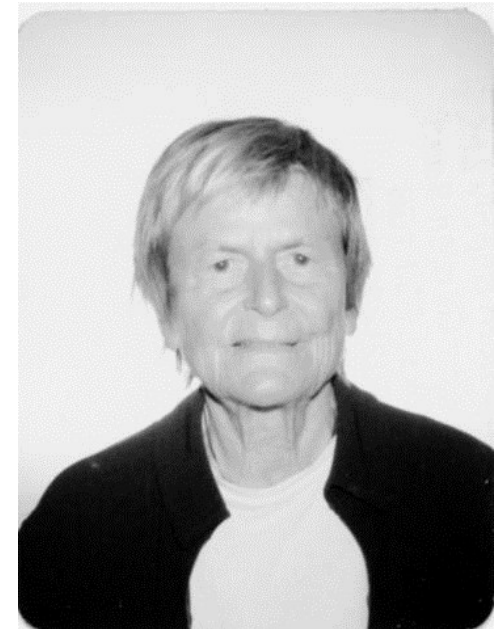
ELISABETH MANN BORGESE FONDS – ACQUISITION

- 2002-008 – 128 boxes of textual records (1970-1980) donated by estate*
- 2003-029 – 5.5 m of textual records (1980-1997) donated by estate*
- 2003-064 – 14 boxes of textual records (1980-1997) donated by estate*
- 2009-024 – 37.4 m transferred from International Ocean Institute
- 2013-015 – 1 cm of textual records (1968-1970) mailed to Archives by Betsy Baker (colleague from University of Washington)

ELISABETH MANN BORGESSE FONDS – DESCRIPTION



Photograph by Creighton Barrett

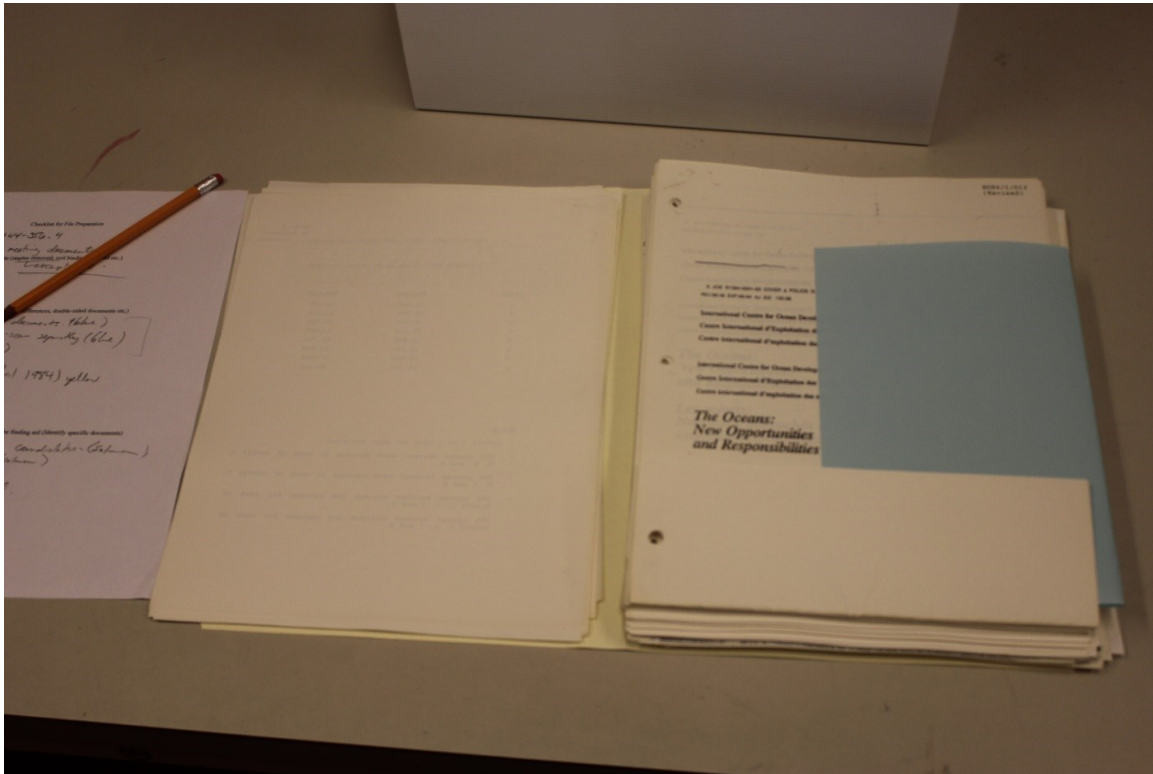


Passport photo of Elisabeth Mann Borgese, [MS-2-744, Box 237, Folder 48, Item 9](#)

ELISABETH MANN BORGESE FONDS – SAMPLE ARCHIVAL DESCRIPTIONS

- Data on ocean space resources. [19--]. – 1 folder. MS-2-744, Box 233, Folder 22
- Outline of research project on seabed mining and African development. – [ca. 1978]. – 1 folder. MS-2-744, Box 208, Folder 3
- Correspondence with Domenica (Nica) Borgese. – 1972-1983. – 1 folder. MS-2-744, Box 2, Folder 17

ELISABETH MANN BORGESSE FONDS – DIGITIZATION



Blue paper: flag legal sized paper
so scanner settings can be
adjusted

Photograph by Krista Jamieson and John Yolkowski

ELISABETH MANN BORGESE FONDS – DIGITIZATION



Still from a television interview with Elisabeth Mann Borgese produced by the German broadcaster “Deutsche Welle”, [MS-2-744, Box 182, Folder 21](#). View on YouTube: <https://youtu.be/FdgAHbJFRWE>.

RANSOM MYERS



Ransom Myers in Alaska. – 2005.
– 1 photograph (jpg) : 355 KB. –
Photograph was originally titled
“Alaska2_010.jpg” (from the
Ransom Myers fonds)

RANSOM MYERS FONDS – ACQUISITION

- 2008-008 – 32 linear metres of textual records and other material from office at Dalhousie – donated by estate
- 2008-048 – 1.6 linear metres of textual records and other material from home office, various digital media carriers, and almost 40,000 emails – donated by estate
- 2008 monetary appraisal and designation as “certified cultural property” by Canadian Cultural Property Export Review Board (CCPERB)

RANSOM MYERS FONDS – PROCESSING

- Fonds was processed in 2015 through Provincial Archival Development Grant (\$15,000.00 grant matched with \$13,623.40 cash and in-kind contributions)
- Andrea Kampen hired as Archives Assistant (September 2015 through March 2016)
- Archival appraisal (or “reappraisal?”), web archiving, traditional archival processing, email processing, etc.
- Worked independently from January 2016 to March 2016

RANSOM MYERS FONDS – DESCRIPTION

- 9.2 linear metres of textual records and other materials (1977-2007)
- Seven series: personal papers; publications; personal library; research material; conference and association records; teaching material; litigation and consultancy)
- 2,085 archival descriptions
- First attempt to create archival descriptions for electronic mail

RANSOM MYERS FONDS – SAMPLE ARCHIVAL DESCRIPTIONS

- Sub-series: Ransom Myers' electronic correspondence. – 1995-2007. – 36,818 electronic mail messages (eml) : 3.11 GB
- Dataset for harp seal (*Phoca groenlandica*) used by Ransom Myers. – 1994. – 1 folder. MS-2-179, Box 30, Folder 7
- Video of Ransom Myers' family. – [between 1990 and 2007]. – 1 videocassette : MiniDV. – Item was originally titled “Footage of RAM's kids.”

RANSOM MYERS FONDS – EMAIL

December 31, 1997 - “Hi Ransom, Here at [name of institution redacted] we've recently had problems regarding silencing of 12 scientists, who in their private capacity and without disclosing their affiliation, wrote an open letter criticising the govt for a damaging (environmentally) development...I, incidentally was one of the 12. Anyway the upshot is that I'm writing an article on Censoring science and censoring scientists...I've been reading with great interest the letters to Can J Fish Aq Sci in which you apparently were reprimanded, wrongfully it is claimed by one, and rightly by another.”

RANSOM MYERS FONDS – EMAIL

January 1, 1998 – “Dear [name redacted], I will send you the details of my reprimand and the subsequent battles. I have left the gov. for a very nice Univ. job. I broke my arm very bardly 3 days ago, so I will have to get my wife to type the letter to you. I will offer you all the help I can. You way want to look at some of the stories in the ottawa Citizen look at:

<http://www.ottawacitizen.com/national/970806/1041213.html>

there are many such stories. i have attached two files, one is postscript and one is in LaTeX. I will get back to you later, it is very difficult for me to type. good luck RAM”

RANSOM MYERS FONDS – EMAIL



NEWS	OPINION	BUSINESS	ARTS	SPORTS	LIFE	CAREERS	OBITS	CLASSIFIEDS	DRIVING	SIGN IN	SUBSCRIBE
FEATURED: SENATORS EXTRA WHAT TO DO THIS WEEK STYLE MAGAZINE HOT GIGS GARDENING EVENTS AROUND MORE										Q	POSTMEDIA

We're very sorry. It appears this isn't the page you were looking for.

If you typed in a url, please check the address and spelling.

Screenshot from October 31, 2016:

<http://www.ottawacitizen.com/national/970806/1041213.html>



You are viewing an archived web page, collected at the request of [Dalhousie University Libraries](#) using [Archive-It](#). This page was captured on 14:41:47 Mar 06, 2016, and is part of the [Ransom Myers](#) collection. The information on this web page may be out of date. See [All versions](#) of this archived page. hide



[About This Site](#)

[Maps](#)

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[Related Papers](#)

Welcome to Ransom Myers'

***THE RANSOM MYERS' STOCK
RECRUITMENT DATABASE HAS NOT
BEEN UPDATED SINCE 2004 AND IS NO
LONGER MAINTAINED. PLEASE GO TO
THE UPDATED CONTENTS OF THE
RAM LEGACY DATABASE.***



This site consists of maps, plots, and numerical data relating to over 600 fish populations (over 100 species) from all over the world. Approximately 100 new populations are added per year. Ransom Myers is currently

Screenshot from
October 31,
2016:
<http://wayback.archive-it.org/6653/20160306144147/http://www.mscs.dal.ca/~myers/welcome.html>

Enter Web Address:

All ▾

Take Me Back

Not in Archive

The page you requested has not been archived in Archive-It.

This could be for a number of reasons.

Most likely the page you are requesting was outside of the crawler's scope. Try another request or click to see other pages from ram.biology.dal.ca.

It is also possible that this site is currently being crawled and the archived pages are not yet available in the Wayback Machine. It can take up to 24 hours after a crawl has been completed for the site to appear in the Wayback Machine. Please try again after the allotted time.

You can also try searching for ram.biology.dal.ca/~myers/data.html on the [live web](#), in the [global Wayback Service](#), or in the General Archive at the Internet Archive at www.archive.org

Screenshot from October 31, 2016: <http://wayback.archive-it.org/6653/20160306144147/http://ram.biology.dal.ca/~myers/data.html>



ONLINE DATA AND PLOTS...

This site will give you access to the data and plots from a variety of sources and projects.

[Pelagic Longline Bycatch Project](#)

The following is a list of all available species organized alphabetically by order and family. Select any species from this list in order to view a list of stocks for which spawner-recruitment information is available.

Acipenseriformes

Acipenseridae

- [Acipenser guldanstadtii](#) (Russian sturgeon)
- [Acipenser stellatus](#) (Starred sturgeon)
- [Huso huso](#) (Great sturgeon)

Archaeogastropoda

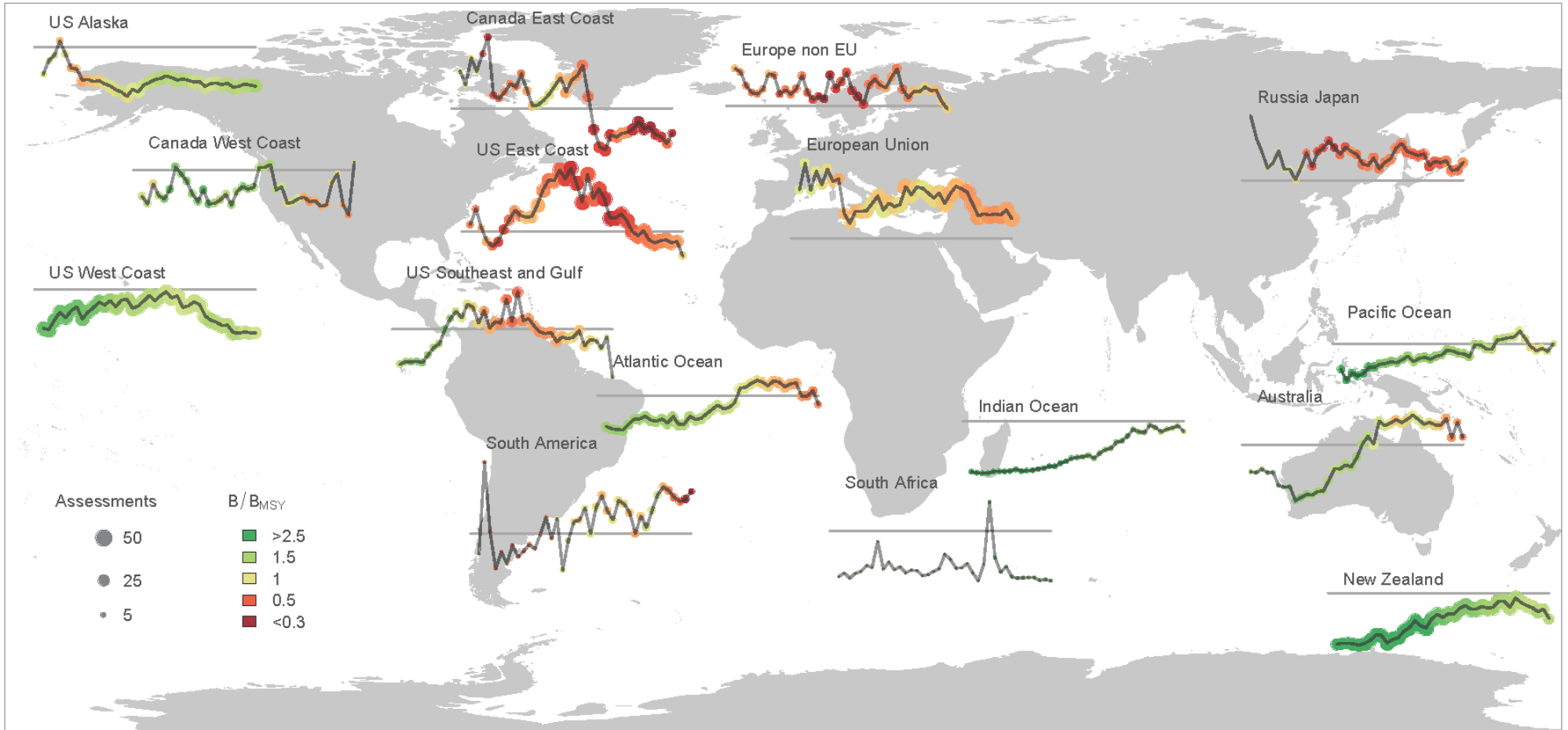
Haliotidae

- [Haliotis laevigata](#) (Abalone)

Screenshot of live website from
October 31, 2016:

[http://ram.biology.dal.ca/~myers/d
ata.html](http://ram.biology.dal.ca/~myers/d
ata.html)

RANSOM MYERS – RAMLEGACY.ORG



Screenshot from
October 31,
2016:
<http://ramlegacy.org>

RANSOM MYERS – [RAMLEGACY.ORG](http://ramlegacy.org)



<http://ramlegacy.org>

Latest

Show All

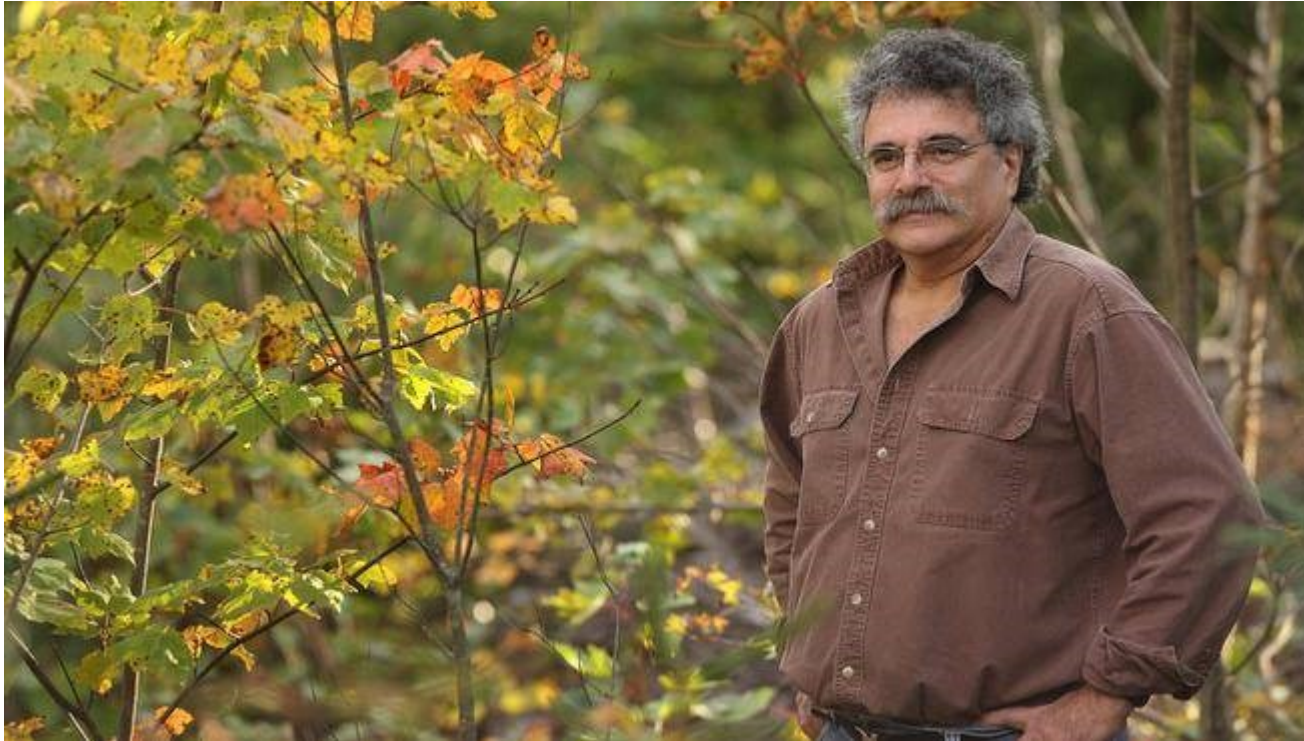
Page cannot be displayed due to robots.txt.

See [ramlegacy.org robots.txt](http://ramlegacy.org/robots.txt) page. [Learn more](#) about robots.txt.

User-agent: *
Disallow: /

Screenshot
from October
31, 2016:
https://web.archive.org/web/*/http://ramlegacy.org/

BILL FREEDMAN



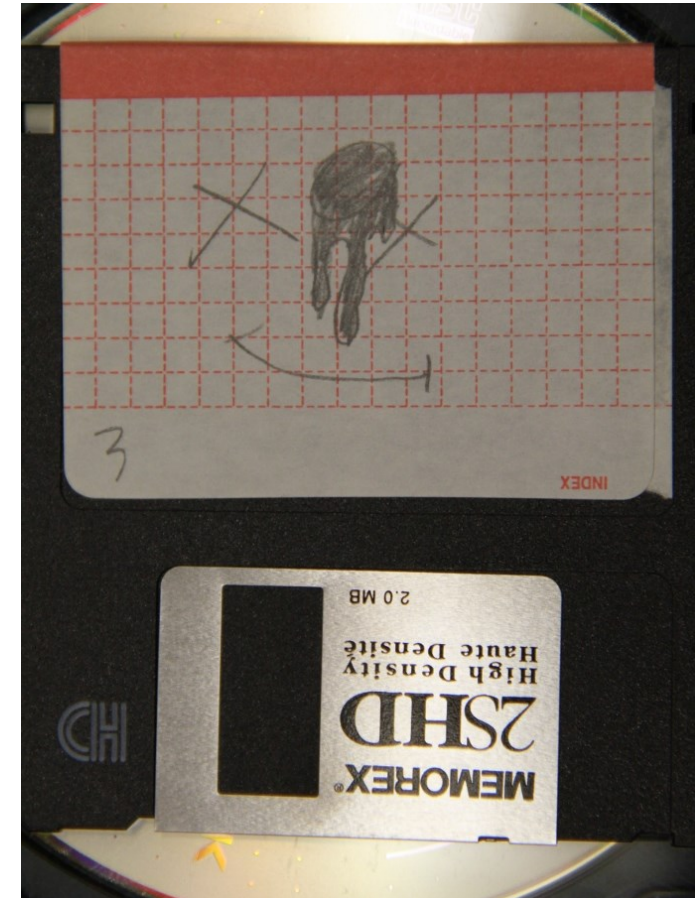
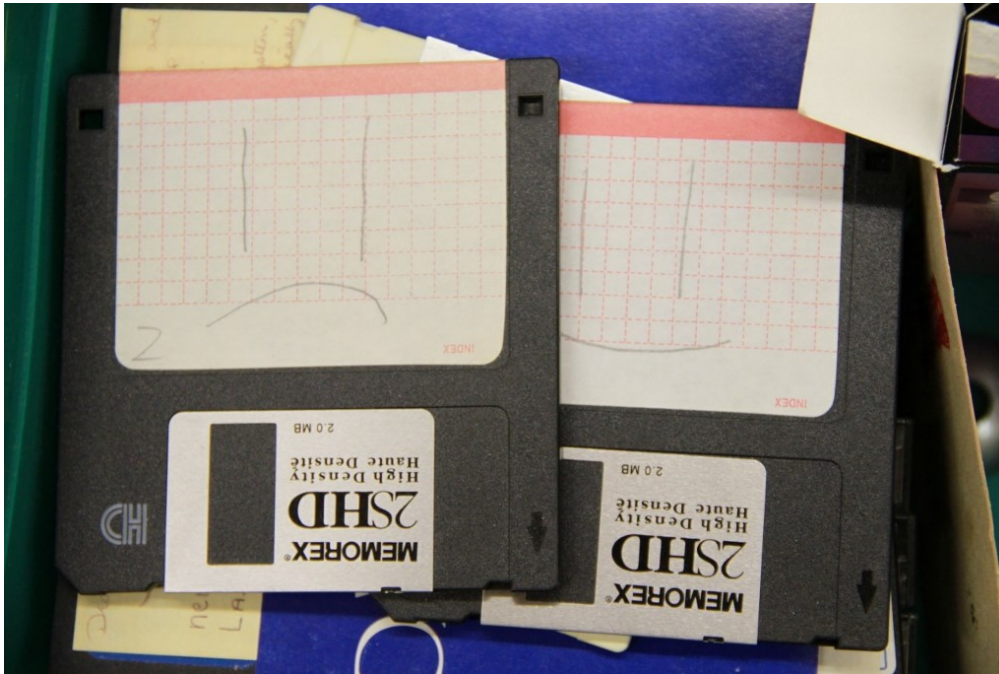
<http://thechronicleherald.ca/novascotia/1313610-conservationist-dal-prof-freedman-dies-of-cancer>

BILL FREEDMAN FONDS – ACQUISITION



Photograph by Creighton Barrett

BILL FREEDMAN FONDS – DIGITAL FORENSICS



Photographs by Creighton Barrett

GENERAL CHALLENGES

GENERAL CHALLENGES

- “Long tail data” – unstructured and un-curated data that is difficult to share and discover
- Boundary/scope of scientific archives
- Representation and diversity in acquisitions and collections management
- Emotional labour of donor negotiations and archival processing

GENERAL CHALLENGES

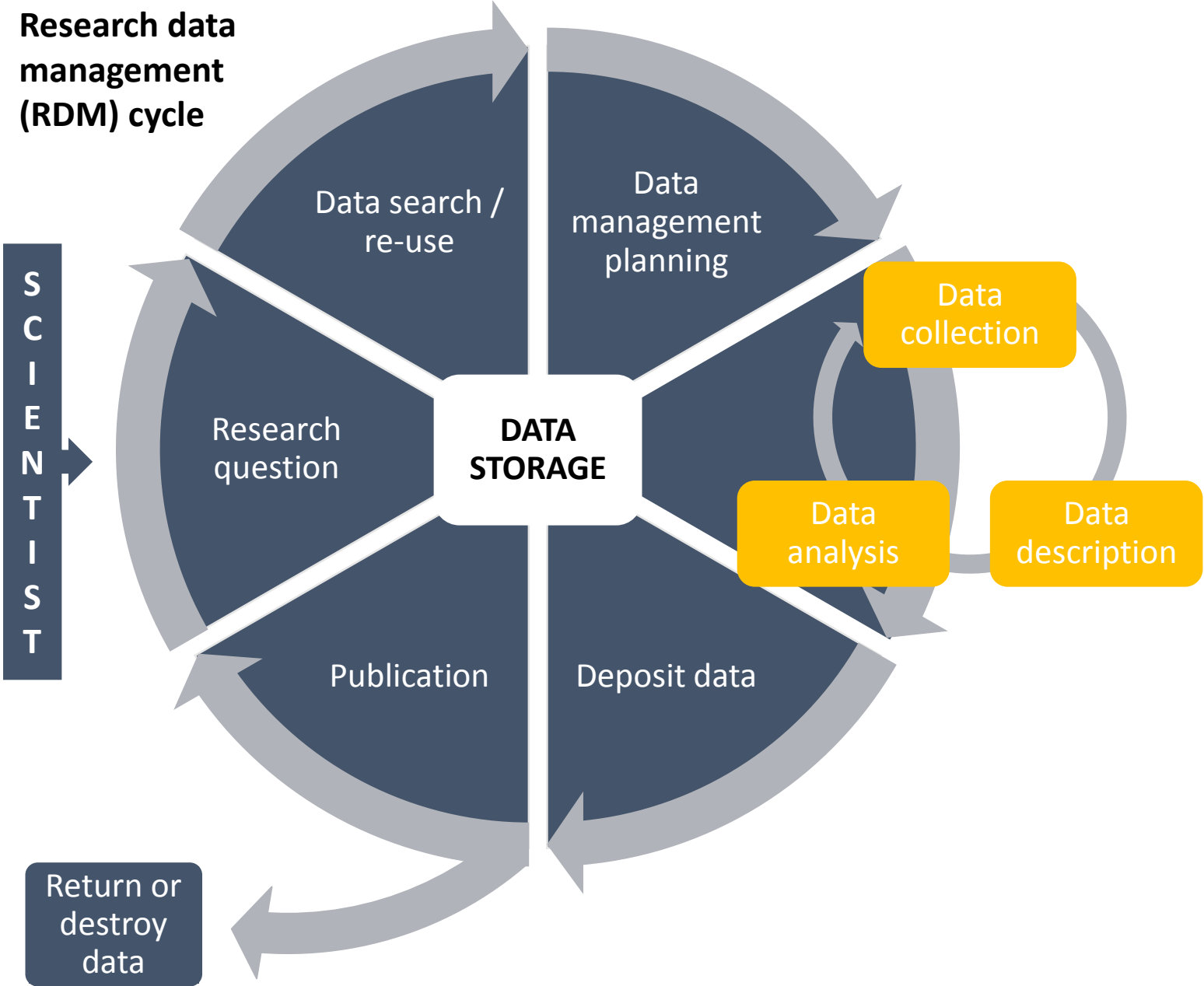
- Digital forensics
- Digitization
- Relationship between research data management services and archives services
- Digital preservation

LONG-TERM SOLUTIONS

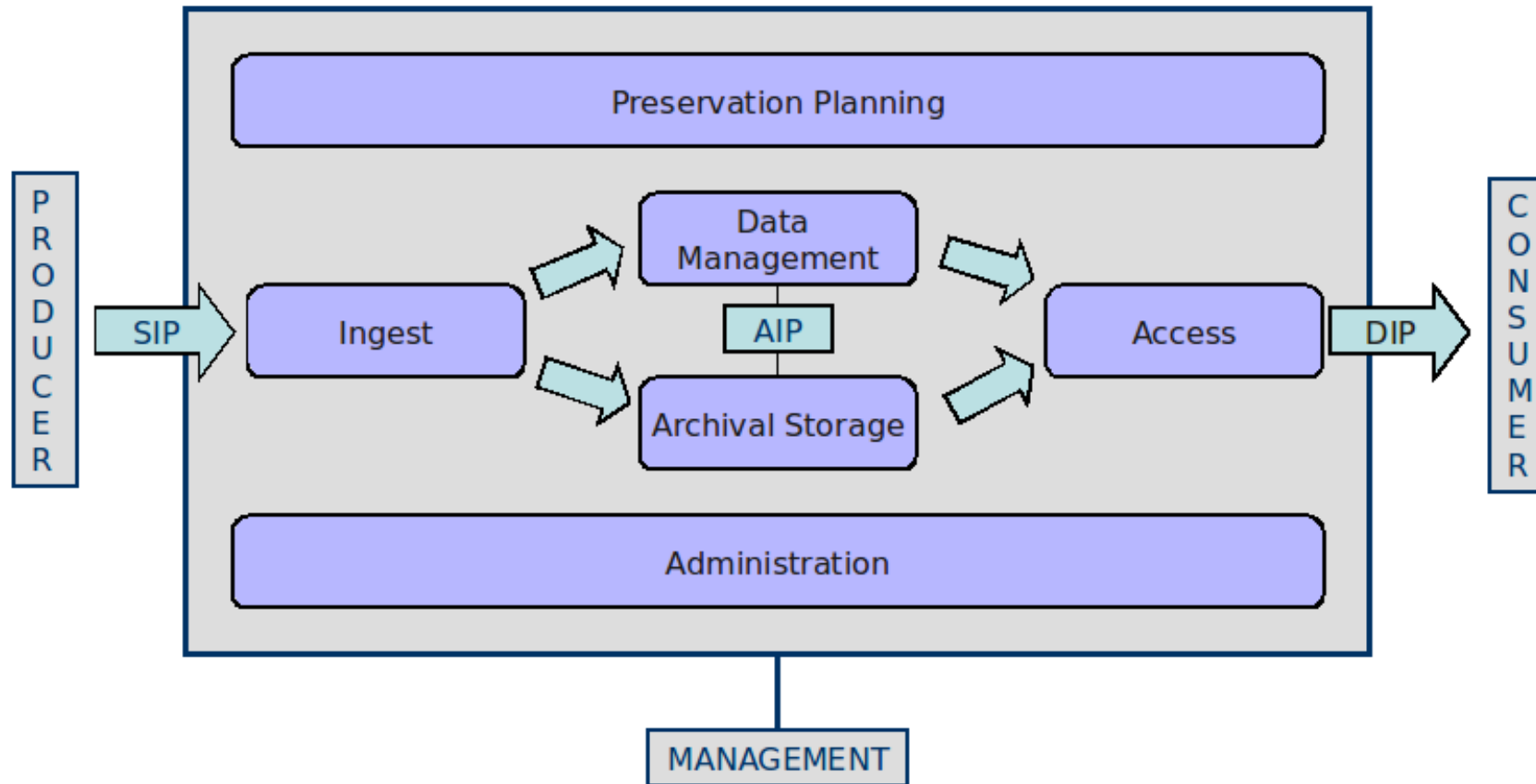
- Integrate research data management planning with personal archives acquisitions and digital preservation standards:
 - ISO 14721:2012 – open archival information system (OAIS)
 - ISO 16363:2012 – trustworthy digital repositories
 - ISO 20652:2006 – producer-archive interface – methodology abstract standard
 - ISO 20104:2015 – producer-archive interface specification

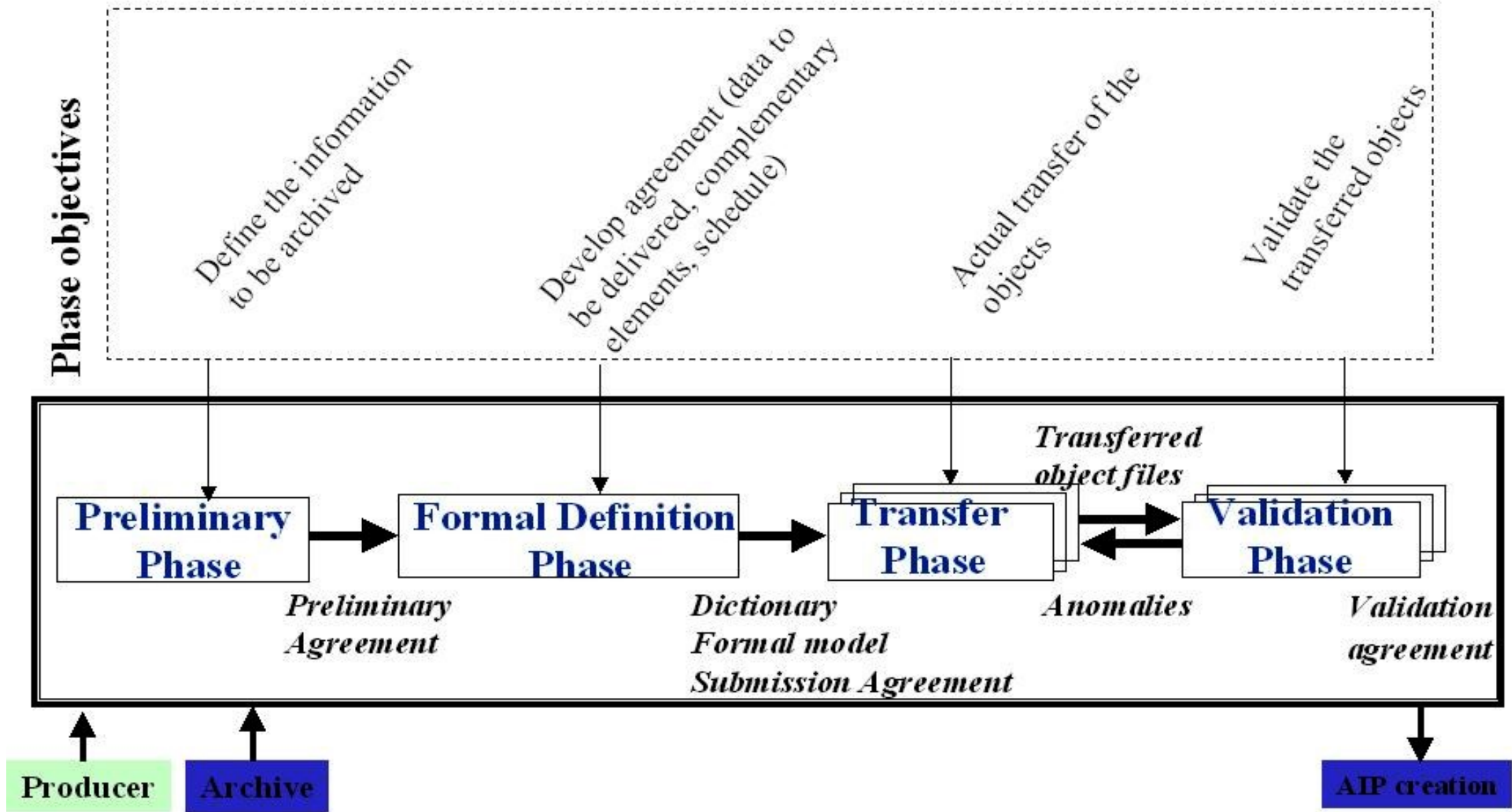
RDM + PERSONAL ARCHIVES + OAIS + PAIMAS

Research data management (RDM) cycle

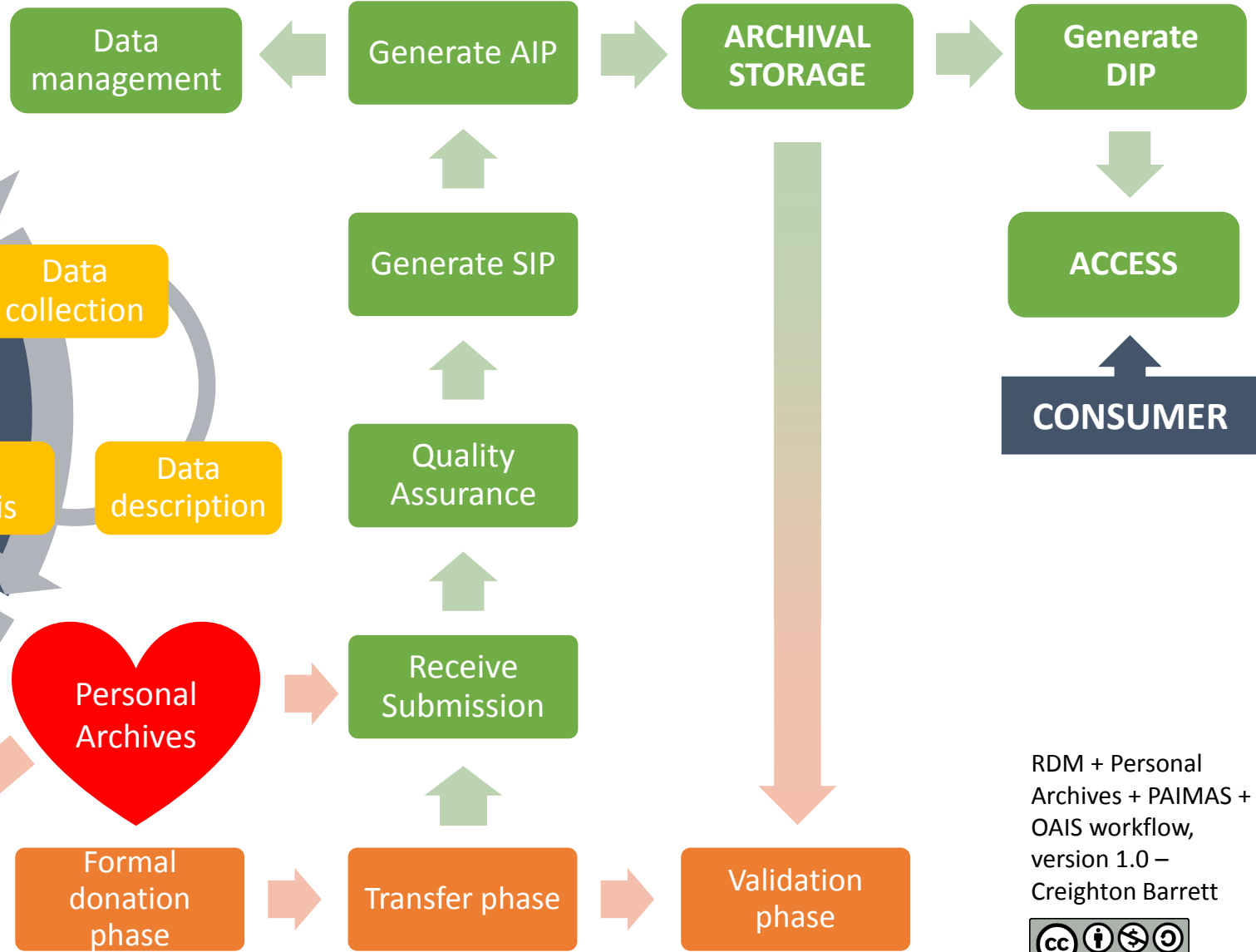


Open Archival Information System (OAIS) reference model (ISO-STD 14721)



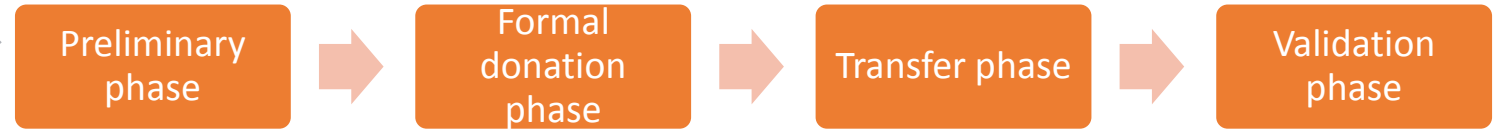
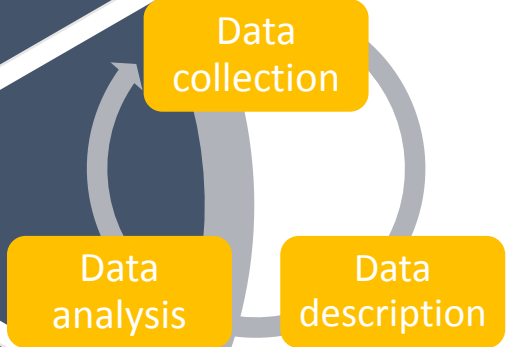
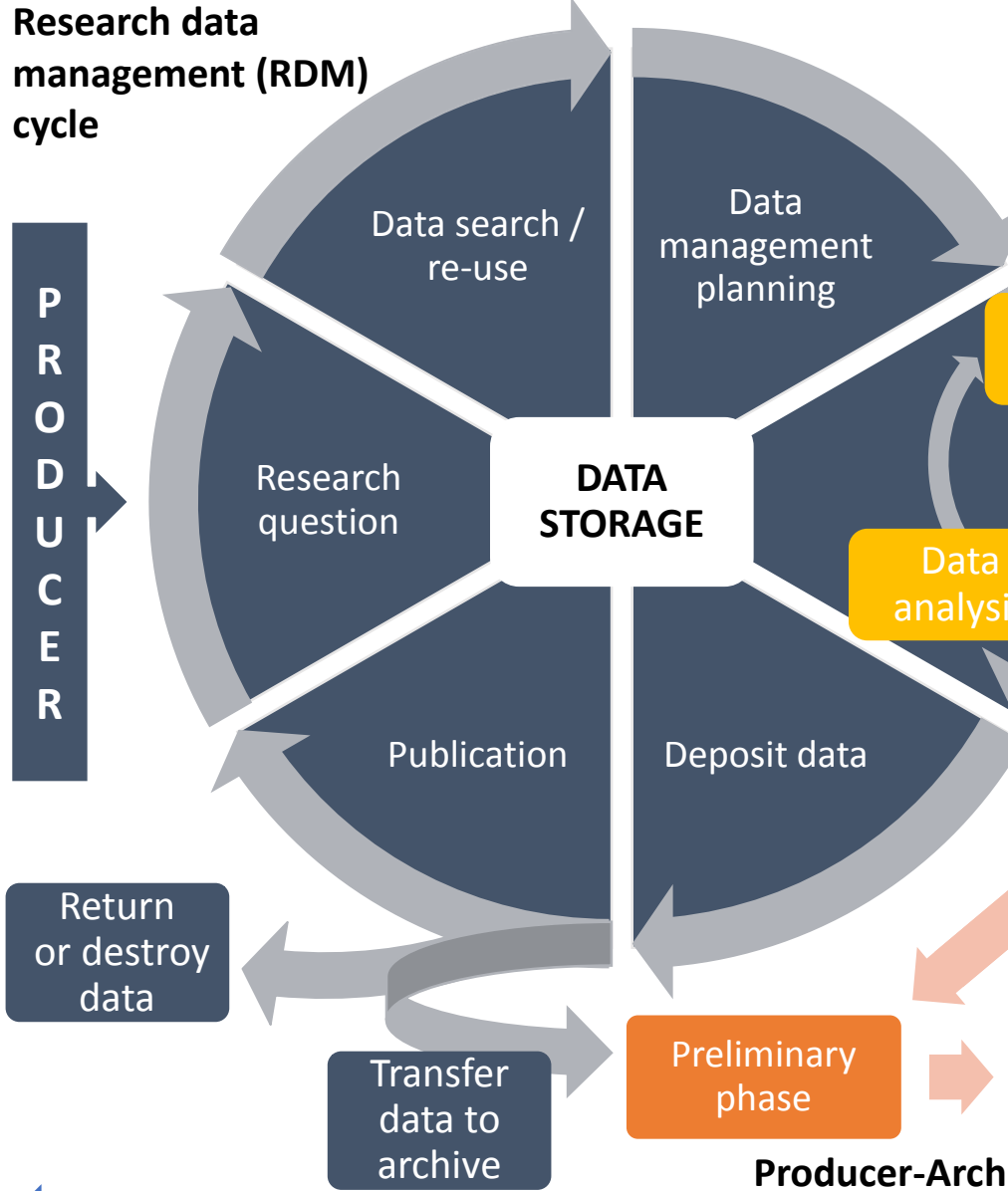


Functions of an Open Archival Information System (OAIS)



Research data management (RDM) cycle

P
R
O
D
U
C
E
R



Producer-Archive Interface Methodology Abstract Standard (PAIMAS)

RDM + Personal Archives + PAIMAS + OAIS workflow, version 1.0 – Creighton Barrett



RECOMMENDATIONS FOR RESEARCHERS

- Include personal archives in research data management plans
- Embed archivists and librarians in research projects
- Describe your data
- Include certain RDM + digital preservation costs in grant applications

RECOMMENDATIONS FOR INSTITUTIONS

- Commit to preserving the “record of research and learning” – (Recommendation #8, [MIT Task Force on the Future of Libraries](#))
- Include research data management infrastructure and services as part of “core research facilities”
- Include certain RDM + digital preservation costs as part of institutional “indirect costs of research”

THANK YOU