



Annual Report for the year 2019

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From the Co-Directors:

The MBLWHOI Library promotes an innovation culture and leverages new technologies to provide the Woods Hole scientific community with high quality information tools. As the researcher needs evolve, the Library must evaluate existing print and electronic resources and expenses. In 2019 we began the process to upgrade the integrated library system to better meet the needs of modern researchers. Library staff are advocates and a resource for implementing best practices for data management, publication, and persistent identifiers. Authors are turning to the Library as a place to meet open access mandates for data. Increasingly administrative departments and funded projects are seeking information on bibliometrics and research outputs. We continue to evaluate and adopt tools and procedures to enable us to fulfill these requirements.

- Lisa Raymond and Jen Walton

- **Library Staff**

Lisa Raymond, Co-Director MBLWHOI Library, Director of Library Services at WHOI

Jennifer Walton, Co-Director MBLWHOI Library, Director of Library Services at MBL

Kirill Batyuk, Systems/Metadata Librarian

Brett Freiburger, WHOI Archivist (started October)

John Furfey, Senior Automation Services Officer

Audrey Mickle, Data Librarian

Matthew Person, Tech Services Coordinator

Debbie Roth, Repository Manager

Dave Sherman, WHOI Archivist (resigned October)

Nancy Stafford, Resource Sharing/Cataloging Librarian

- **Library Volunteers**

WHOI Data Library and Archives (DLA): Wendell Edwards, John Foley, Ralph Montilio, and Jane Tracy.

Herbarium: Pamela Polloni, Carol Knox, Kathleen Mortenson, Jan Salick, Donald Schall, and Jacqueline Webster.

MBL: Herbarium project Scanners: Tom Gregg and Judy Stetson.

MBL Special Collections: Rebecca Corbett

- **Activities and Services**

Library activities and services center around the missions of the institutions served. Built upon a foundation of core services, the Library has developed and continues to develop additional programs and projects to meet the growing needs of its users. Core Library services include:

- Acquisitions and management of collections, including monographs, serials and databases
 - Bibliometrics
 - Citation management
 - Course reserves
 - Data management
 - Digital Object Identifier (DOI) assignment
 - Institutional archives
 - Instructional programming and public outreach
 - Interlibrary loan
 - Publication services
 - Reference services
 - Records management
 - Remote access to electronic resources
 - Working space
-

- **Consortial Activities**

The Library is a member of the 19 member Boston Library Consortium (BLC), which serves New England academic library institutions. Library staff participated in a number of BLC Communities of Interest (COI), including Resource Sharing, Continuing Resources and Metadata Management, Resource Management, and Special Collections, as well as the newly created Technology COI.

As a part of the BLC Leads Program, MBLWHOI hosted 4 program participants for a day visit. This gave a chance for aspiring leaders in BLC Libraries an opportunity to see how a small special library operates.

The Library is a member of the Eastern Academic Scholars Trust (EAST), distributed print repository, as a serials retention partner.

The WHOI and MBL Co-Directors are members of the International Oceanographic Data and Information Exchange (IODE) Steering Group for OceanDocs. The purpose of IODE is to meet the user data and information products needs for marine research, exploitation, and development. The WHOI Co-Director served on the Aquatic Commons Evaluation Team.

The MBLWHOI Library supports the Biodiversity Heritage Library (BHL) through long term work on the Staff and Collections Committees. In 2019, the Library authored the BHL blog post: *Researching the American Horseshoe Crab: Connecting 19th and 21st Century Research with the MBLWHOI Library*. The BHL and EAST projects additionally continue to inform Library collections and space planning decisions.

● Library Instruction, Outreach, and Events

Library staff provided planned and on demand library instruction, lectures, orientations, and institutional history and collections tours to Woods Hole scientific community members throughout the year. This programming included general introductions to the physical and digital library, classes focusing on specific databases, one-on-one instruction, and providing bibliometric assistance to scientists and administrators.

The MBL Rare Books and Archives collections continue to be introduced to and used by students and researchers, including students from Sea Education Association (SEA), the MBL's Semester in Environmental Science (SES), MBL's High School Program, the Woods Hole Partnership in education program (PEP), and researchers from the MBL McDonnell Initiative. Educational hands on targeted tours were conducted during MBL and WHOI summer courses / programs, student orientations, seminars, courses, donor visits, and for other special MBL and WHOI guests.

The Library also offered talks by MBL McDonnell Foundation scholars using the Library. Kat Maxson Jones, PhD. Candidate, History of Science, Princeton University presented: "Neurobiology at the MBL: A History of Sources from the MBLWHOI Library Rare Books and Archives. Dr. Hanna Lucia Worliczek, Department of History, University of Vienna presented: "From the Adoption of Fluorescence Microscopy to Changing Ways of Knowing in Cell Biology: Accessing the Recent History of Biology Through its Visual Culture(s)".

The 2019 E.B. Wilson History and Philosophy of Science Lecture at MBL, "The Politics of Embryology: Johannes Holtfreter's Flight from Nazi Germany" focused on Dr. Michael Dietrich's work using the Holtfreder papers in the MBL Archives. Dietrich argued that Holtfreter's work on gastrulation and embryonic induction underwent a significant shift during the war years. Holtfreter's flight from Nazi Germany in 1939 and his subsequent experiences as a refugee scholar led him to argue against Hans Spemann's "organismic" approach to experimental embryology.

In May, the Library sponsored the Michael Mizell Public History Lecture. The 2019 lecture: "Past, Present, and Possible Futures of Regeneration Research" was given by Alejandro Sánchez Alvarado, Investigator, Stowers Institute for Medical Research / HHMI; MBL Fellow. Dr. Sanchez Alvarado provided an overview of our fascination with the phenomenon of regeneration spanning millennia, and its sociological influence evident in ancient and modern folklore, art, politics, and even language. Regeneration has also markedly impacted the history and evolution of science. Its study yielded critical insights that challenged flawed notions about nature and helped uncover fundamental principles underpinning the workings of life on this planet. Moreover, an inspection of the historical record indicates that the study of animal regeneration played a key role in establishing the field of biology as a legitimate scientific discipline. Sánchez Alvarado discussed how the study of animal regeneration led to the discovery of stem cells, the nature of heredity, and key concepts in embryonic development. He will also argue how regeneration has ultimately and will likely continue to shape the thought and practice of modern biological sciences.



July 30 panel: Two Cultures in the Age of Twitter



In July, the Library sponsored a panel discussion based on a special issue of *European Review* edited by Gerry Weissmann “Two Cultures in the Age of Twitter: Reconsidering the Scientific/Literary Divide 60 Years After C.P. Snow”.

The Program included:

Moderator: John Dowling, Harvard University

Introduction: Sir Hans Kornberg FRS, Cambridge and Boston Universities

C.P. Snow and the Two Cultures 60 Years Later: Walter Massey, School of the Art Institute of Chicago

C.P. Snow, Sputnik and the Cold War: Jeanne Guillemin, M.I.T.

Two Cultures and Our Encyclopedic Brain: Jean-Pierre Changeux, Institut Pasteur & Collège de France

Human Heredity Now and in the Future: Matthew Meselson, Harvard University

The Library continues outreach through social media and blog posts, often in support of collaborative social media events. Looking at Twitter for example, tweets in 2019 on subjects including MBL and WHOI history, library services, events, and science publishing were seen over 180,000 times.

● Data Activities

The WHOI Co-Director is a member of the Research Data Alliance and took a lead on updating a resource guide that the Libraries for Research Data Interest group produced.

The WHOI Co-Director continues to be a resource for several working/steering groups for the International Oceanographic Data and Information Exchange (IODE) of the Intergovernmental Oceanographic Commission (IOC) of UNESCO.

The Data Librarian and the WHOI Co-Director taught a session as part of the WHOI Data Science Training Camp sponsored by the Academic Programs Office.



Data Science Training Camp, Librarian Audrey Mickle (r)

The Data Librarian and Repository Manager participate in activities of the Earth Science Information Partners (ESIP), a “non-profit, volunteer and community-driven organization that advances the use of Earth science data.”



The Data Librarian and Repository Manager have been collaborating on further improvements to the WHOAS Repository and data ingest workflows to provide data access that complies with FAIR standards, as well as those of Core Trust Seal. The WHOAS Repository is certified as a CoreTrustSeal repository.

In 2019 the Data Librarian implemented new cruise and dive data input workflows and began to reorganize the legacy data records, creating a more integrated search that provides context for cruises, data, people, and grants.

The Data Librarian also implemented API access to the Cruise Data database and plans to use this to simplify communications between repositories for cruise and NDSF data, as well as other data products. Additionally, the URL scheme for all the cruise and dive data access was simplified. In the coming year, more robust data querying tools for cruise and dive data will be added. The Data Librarian is coordinating with the National Deep Submergence Facility (NDSF) to redesign the workflow for incoming NDSF data and how it will be ingested, described, and stored going forward.

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        "arrive_port": "Puntarenas, cr",
        "arrive_port_id": "100052",
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      }
    },
    {
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        "leg": "",
        "voyage": "38",
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        "vessel_id": "33VB",
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        "depart_date": "2019-09-20",

```

Image of JSON data retrieved from the Cruise Data API.

In 2019 the Data Librarian and the Repository Manager worked with @mire, a leading company in the DSpace community to implement Schema.org on the records in the WHOAS repository, making them more findable and machine readable. This allows developers and indexers to more easily leverage all the rich metadata in our repository to expand access to data.

- **Bibliometrics and Institutional Research Services: Outreach and Partnerships**

The Library continued to refine our implementation of Symplectic Elements, a full featured research information management (RIM) system. RIM is an emerging service for academic libraries and this work positions MBLWHOI with new opportunities to support the strategic goals of the researchers and institutions in Woods Hole.

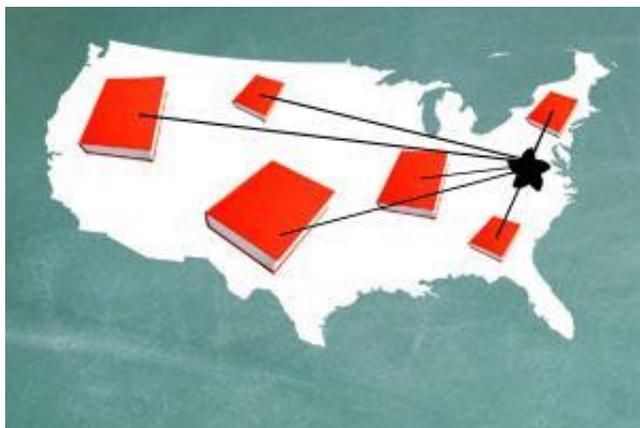
Leadership at both WHOI and MBL have been receiving weekly, organization-based publication updates from the Library for years. This year, we've streamlined that workflow and are using Elements to provide this valuable information in a timelier fashion. In addition to the research information work we do within the Elements system; the library is also tracking publication and bibliometric data for a number of Woods Hole scientific initiatives. These include:

- All courses at the MBL
- National Deep Submergence Facility at WHOI
- National Ocean Sciences Accelerator Mass Spectrometry facility at WHOI
- Ocean Observatories Initiative at WHOI
- National Xenopus Resource at MBL
- Central Microscopy Facility at MBL
- WHOI/MIT Joint Program
- WHOI Sea Grant
- Martha's Vineyard Coastal Observatory at WHOI

These services are yet another way that the Library is able to partner with various administrative and research departments across Woods Hole. This year, once again, we were able to engage with a number of new users:

- Research administrators from MBL and WHOI needing reports and data from Elements,
- Technology Transfer office at WHOI asking for weekly, organization publication updates to mine for potentially patentable ideas.
- Staff at the Woods Hole Research Center are interested in creating researcher profiles in Elements.
- Interest from the MBL Communications group to repurpose data from Elements to populate the new institutional website that's being planned.

• 2019 Interlibrary Loan Statistics



One of the most valued services, Interlibrary Loan supports the library's mission by providing the affiliated scientific community with access to print and electronic materials beyond the MBLWHOI Libraries carefully curated collection.

The Borrowing unit provides our affiliated users with rapid article or book chapter delivery and generous book loans from a vast network of local, statewide, national, and international libraries as well as from document suppliers. The Lending unit

supplies MBLWHOI Library owned materials to other libraries - articles are shared worldwide and books are loaned within the United States. Both borrowing and lending requests are made through ILLiad, the software used by the Library.

As a member of the Boston Library Consortium and thru participation in the BLC's Resource Sharing Community of Interest, ILL staff are involved with setting ILL policies and Best Practices which are then reviewed and revised annually to take advantage of developments in the field.

The MBLWHOI Library complies with U.S. Copyright Law (Title 17, U.S. Code) and adheres to the principles of the ILL Code for the United States.

The MBLWHOI Library continues to be a 'net lender' of materials and in doing so maintains the trust we have developed with our partners. By providing them with the quality and rapid turnaround time they rely on we, in turn, can count on the same exceptional service which our patrons thank us for all the time.

Interlibrary Loan

Borrowing Statistics	2019	2018	2017
Articles	1136	1305	1438
Books	170	181	155
Total	1306	1486	1593
Lending Statistics	2019	2018	2017
Articles	2351	2967	3147
Books	172	181	205
Total	2523	3148	3352

Library Collections

Circulation Statistics	2019	2018	2017	2016
Items Charged	577	544	595	799
Renewals	626	519	563	782
Items Discharged	444	652	719	724

- **Circulating Collection Accessions**

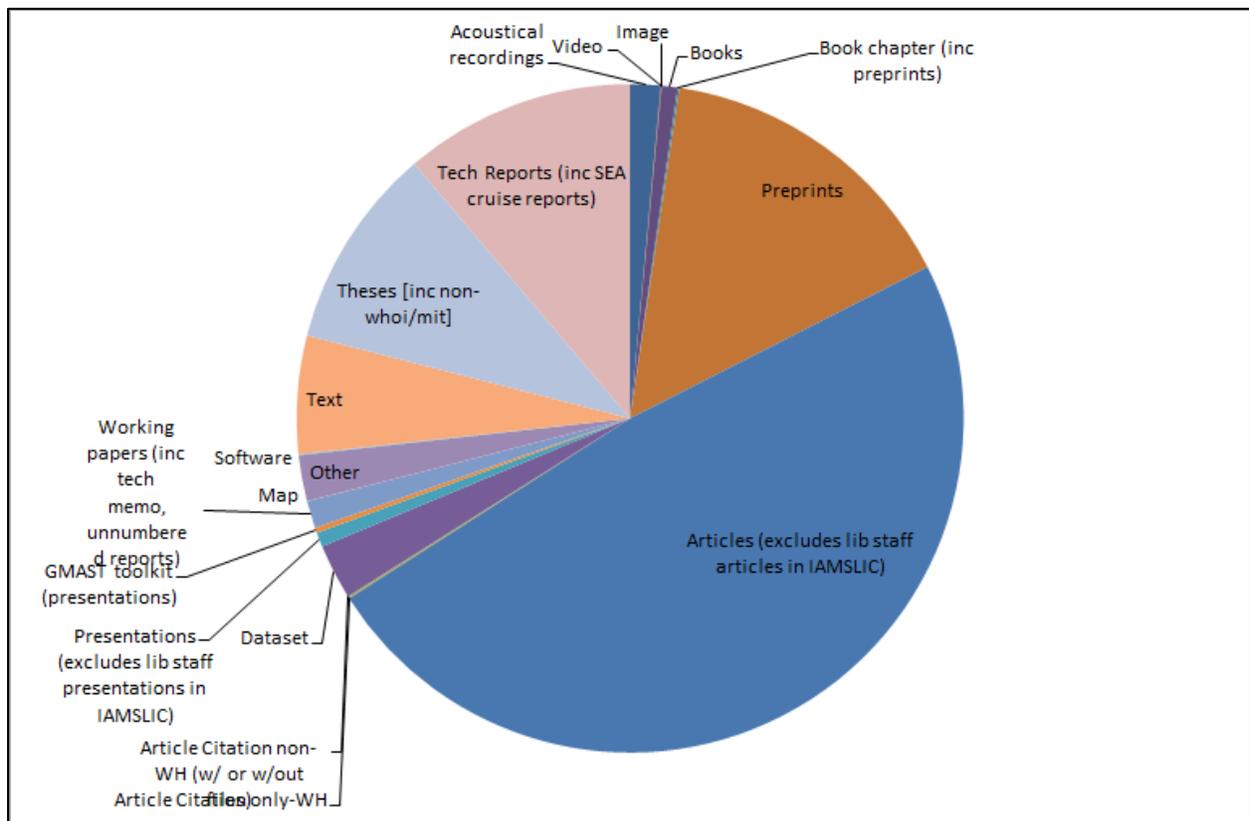
MBL Book Stacks: 30

Data Library and Archives*: – 139

*includes monographs, tech reports and thesis

- **Woods Hole Open Access Server (WHOAS) Institutional Repository**

WHOAS continues its steady growth track, having added 553 new metadata records and their associated digital objects in the 12-month period ending December 2019. At the close of the period, metadata records totaled 19,482, 1,115 of which are from the International Association of Aquatic and Marine Science Libraries and Information Centers (IAMSLIC).



WHOAS repository contents pie chart.

- **Serials and Journals Collections**

Subscribed to titles 2019:

Electronic: 805; Print: 19

Freely accessible open access titles: a few thousand

Article views of subscribed to titles (2018): 196,112 (2017) 170,781

The Library license negotiation team consisting of the Library Co-Directors and the Tech Services Coordinator meets annually with publishers we purchase titles from to improve negotiated site licenses over previous years agreements, thus ensuring reasonable pricing and usage terms reflected in uninterrupted access to journal subscriptions for MBLWHOI Library served scientists. In 2019 the Library collaborated with the procurement officers of MBL, WHOI, and our colleagues at the University of Chicago in a competitive RFP (request for proposals) offer, which awarded the serials journal vendor contract to Otto Harrassowitz GmbH of Wiesbaden, Germany. This continued our reasonable service charge relationship with Harrassowitz, which provides high-level service that leverages the University of Chicago/MBL – Harrassowitz relationship to moderate the service charges to the MBLWHOI Library.

TOP TEN most published in journals in Woods Hole 2019

1. **Geophysical Research Letters (32)**
2. **Proceedings of the National Academy of Sciences of the USA (31)**
3. **Nature Communications (26)**
4. **eLife (25)**
5. **Scientific Reports (22)**
6. **PLoS One (20)**
7. **Limnology and Oceanography (17)**
8. **Nature (17)**
9. **Journal of the Acoustical Society of America (16)**
10. **Oceanography (15), also Science (15)**

Some very large academic libraries and national consortiums have in response to coming Open Access requirements in Europe, negotiated with publishers’ “transformative” subscription agreements that repurpose subscription monies to pay for open access article processing charges, such that all institutionally published research literature is freely accessible to all. The Library monitors the development of these transformative agreements with an eye towards a time when they may be “scaled down” to the needs of libraries such as the MBLWHOI Library. To this end the MBLWHOI Library participates in two unique Open Access subscription projects. The SCOAP3 (Sponsoring Consortium for Open Access Publishing in Particle Physics) project involves American Physical Society published journal titles in an open access project whereby authors don’t pay article processing charges. Published articles are freely accessible to all, and subscribing institutions pay reasonable subscription charges which are directly re-purposed to pay author article processing charges. Another project we participate in is “Subscribe to Open”. This is an Open Access project of the publisher Annual Reviews. In 2020 our subscription

to the Annual Reviews title Environment and Resources was discounted 5%. As long as current institutional subscribers to this journal continue subscribing, the publisher will make all published content freely accessible to all without any article processing fees charged to publishing authors. Institutions and individuals which cannot afford subscription costs can access articles due to the commitment of subscribers to remain subscribers, and the publisher holding back on trying to achieve large price increases every year.

The long-term project to reduce the stacks footprint of our physical books and journals collection in order to create collections which best serve the print literature needs of Woods Hole researchers, continued to be worked on by the Tech Services Coordinator and the Repository Manager in 2019. The Library's collaboration with the EAST Eastern Scholars Academic Trust print retention project has resulted in a total of 443 (4.1% of EAST serial titles) serials titles retained as part of a regional/national consortium concerned with the preservation of a measured national print academic literature corpus in the United States. These titles also become a part of the regional inter library loan collection as the Tech Services Coordinator, Systems Librarian, and EAST data staff coordinated the detailing of holdings in local, and national databases. Titles which are not retained and are not considered of topical value to the Woods Hole community can be weeded (a process all libraries continually perform) from the collection.

Search Results

Download Archived Holdings Download Gaps and Condition Report

443 results for keyword: MBW - page 10 of 23

Title	Publisher	ISSN	Program (Institution)
Hidrotehnica.			View all holdings EAST (MBW)
Histochemistry.	Springer-Verlag	0301-2064	View all holdings BTAA SPR (IULSP) COPPUL SPAN (UAB) EAST (BOS) EAST (MAFCI) EAST (MBW) FLARE (FLARE) LHL (LHL) Scholars Trust (CAO) Scholars Trust (CAO) Scholars Trust (FLARE) WEST (WAUSP) WRLC (CAO) WRLC (CAO) PORTICO
History of oceanography : newsletter of the Commission of Oceanography, International Union of the History and Philosophy of Science	Commission of Oceanography, Division of History of Science, International Union of the History and Philosophy of Science	1013-3917	View all holdings EAST (MBW)
Human genetics.	Springer-Verlag	0340-6717	View all holdings BTAA SPR (IULSP) EAST (MAFCI) EAST (MBW) EAST (YHM)

In some instances the MBLWHOI Library is the only holding institution for a title in the PAPR national Print Archives Preservation Registry

Cooperative print retention can reduce space needed for shelving, and preserves unique titles.

- **WHOI Archives**

Armin Linke, Italian/German artist, and Irene Sunwoo, Curator at Columbia University, visited the archives (virtually and physically) in 2019 to gather data, images, and footage for an installation Armin is designing for open in March 2020 that focuses on how we use visual data to inform our policy decisions on the environment. The initial survey took place over the summer with Irene's visit and Dave assisting her. In November Armin, Gulia (his assistant), and Irene came to gather all the data researched over the previous months. This included imaging the Challenger reports, interviews with WHOI staff (Dan Fornari, Porter Hoagland), and scanning portions of Haeckler's book *Art Forms from the Ocean*. The team spent an entire day in the Archives.

The Archivist worked on several outreach efforts during the year including a blog post that focused on the development of the expendable bathythermograph (XBT) and a podcast with Autumn Brown on the history and development of WHOI.

Purser Gift - Ken Purser, the designer of the NOSAMS accelerated mass spectrometer passed away in 2018 and this year his estate contacted Bob Schneider (WHOI Oceanographer emeritus) about the Archives acquiring the original drawings for the instrument. After negotiations in the fall, the Deed of Gift was signed before the end of the year with a pick-up scheduled in early 2020.

Italian documentary filmmakers Luca Mariani and Stefano Paolo Giussani contacted the WHOI Director of Digital Assets, Jayne Doucette seeking footage of Dr. Maria Bianca Cita, Italian geologist, during her dives on Alvin in the 1970s. Though much of the Alvin footage is of launching and images of the seafloor, [we were able to find a rare clip \(see right\) where the camera was turned back into the cockpit of Alvin showing Dr. Cita assembling a flashlight.](#)



Volunteers Ralph and Wendell completed describing the Alvin video section of the AV collection in ArchivesSpace. Jane Tracy completed entering information from the Jason Jr. design drawings collection into a spreadsheet.

New environmental monitoring equipment was installed. Sensors are now in the archives vault, film vault, CD/DVD room, Herbarium and the DLA stacks. Alarms are set for high/low temperature readings.

This year the Archives received 36 accessions totaling 66.75 linear feet of material, in both new and pre-existing collections. Accessions from pre-existing collections included AC-03 (Communications), AC-06 (Instruments), AC-08 (Marine Ops), AC-09 (Director), AC-13 (Education), AC-53 (Memorabilia), AC-57 (Audiovisual), MC-09 (Sears), MC-39 (Berggren), MC-107 (Legacy Data), and MC-116 (Moulton). The new collections were MC-117 (Paul) and MC-118 (Tarbell).

A major project was completed by the Systems Librarian that involved moving the MBLWHOI Library Herbarium images and specimen database from an MBL server to Consortium of Northeast Herbaria servers hosted at Yale University, <http://portal.neherbaria.org/portal/collections/misc/collprofiles.php?collid=15>. Over 8,000 specimen records and over 10,000 images were transferred and relinked into the new database. Additionally, a new cataloging system was introduced and the volunteers were trained to use the new system. As of December 2019, new records have been consistently added into the new system and new workflows have been successfully implemented.

Archives by the Numbers

- New/updated Finding Aids - 27
- Processed Linear Feet - 62.5
- Processed Electronic Records - 247Mb
- Reference Requests (178 total)
 - Outside WHOI - 85
 - Internal Request - 93
- Reference Topics
 - General/Historical - 77
 - Research - 28
 - Data - 15
 - Images - 33
 - Human Resources - 25
- Volunteer Hours
 - Archives (Wendell Edwards, John Foley, Ralph Montilio, and Jane Tracy) - 229.5
 - Herbarium (Carol Knox, Pamela Polloni, Kathleen Mortenson, Jan Salick, Don Schall, Jacqueline Webster) - 763.5

 MBLWHOI Library
@MBLWHOILibrary

#HerNaturalHistory Dr. Mary Sears (1905-1997)
@WHOI @MBLScience Few individuals have had as
profound an impact on the development of the ocean
sciences: Oceanographer, US Naval officer, Founding
Editor, community leader. via @BioDivLibrary
bit.ly/2HrIG5B @BiolBulletin



4:54 AM · Mar 11, 2019 · Twitter for iPhone

 View Tweet activity

10 Retweets 16 Likes

The above tweet from March 2019 was part of a collaboration social media campaign with the Biodiversity Heritage Library called #HerNaturalHistory. This WHOI - MBL related tweet on the life of distinguished scientist Dr. Mary Sears was seen over 8,500 times.