



College of Literature, Science, and the Arts
Ecology and Evolutionary Biology Department
EEB Museums 2018 Annual Report
1 January to 31 December 2018

Compiled by Benjamin M. Hess
EEB Museums Registrar

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EXECUTIVE SUMMARY from EEB Museums Director – May 2019

The Museum of Zoology (UMMZ) and the Herbarium (MICH) constitute a community of scholars within the Department of Ecology and Evolutionary Biology who are dedicated to studying the evolutionary origins, history, maintenance and conservation of the world's biota, to archiving and documenting changes in biodiversity through its research collections and to educating students in this search for knowledge. Following completion of the move of the UMMZ collections from the Ruthven building to the Research Museums Center (RMC – see images below), 2018 marked the first full year of collaborative operations at the RMC for the UMMZ and the Herbarium. For this reason it seemed an especially opportune moment to produce, for the first time, a combined annual report of activities for both museums. The 2018 Annual Report gives in-depth statistics on collections growth, transactions, digitization activities, online views and downloads of digital records through global aggregators and data portals. It also chronicles research, educational and outreach activities that took place in 2018 within and between our two museums at the RMC. There are some noteworthy numbers in this report that serve to document the impact of our collections and associated activities for biodiversity research and education both locally, at Michigan, and around the world. During 2018, 161 individuals including professors, graduate and undergraduate students, postdoctoral fellows, collection managers, project managers, technicians and volunteers were engaged in museum-related activities at the RMC. Eight different NSF-sponsored infrastructure grants for specimen digitization (totaling \$1,717,563) were active resulting in 383,994 modifications to data on existing collections for that year alone. Our digitization efforts have a profound impact on research and educational access to museum resources. Remarkably, 1,306,502,892 online views of our digital records took place in 2018 and from these views, 1,058,094 records were downloaded. A total of 18,259 new specimens were accessioned into our collections and 16,776 specimens were loaned. And, during 2018, we hosted 655 visitors at the RMC for research and educational purposes. The 2018 Annual Report also provides information on the size, taxonomic breadth and geographic distribution of our digitized holdings available on Specify, a biological collections management system. As we are actively engaged in specimen digitization, this information captures a fraction, approximately 63%, of the combined UMMZ and MICH world class collections comprising greater than 15, 600,000 specimens.

Priscilla K Tucker
Associate Chair (Acting) – Museum Collections
Curator, Museum of Zoology | Professor, EEB



LEFT: The University of Michigan's Alexander G. Ruthven Museums Building (https://www.mlive.com/news/ann-arbor/2018/12/university_of_michigan_to_unve.html; <http://umhistory.dc.umich.edu/mort/central/north%20of%20north%20u/Ruthven%20Museums%20Building/index.html>), RIGHT: The Research Museums Center (image by Pamela Horsely)

COMBINED MICH & UMMZ STATISTICS

INFRASTRUCTURE GRANTS – active in 2018 (total \$ 1,717,563)

Herbarium

National Science Foundation, CSBR (Collections in Support of Biological Research): Ownership Transfer of University of Maine Chytrid Fungal Collection to University of Michigan. (\$107,563).

National Science Foundation, Digitization TCN Collaborative Research: The Microfungi Collections Consortium: A networked approach to digitizing small fungi with large impacts on the function and health of ecosystems. (\$118,277).

National Science Foundation: ABI Innovation: Authors in the driver's seat: fast, consistent, computable phenotype data and ontology production. (\$228,167).

The Pteridological Collections Consortium: An integrative approach to pteridophyte diversity over the last 420 million years-NSF ADBC program. (\$280,453).

National Science Foundation ADBC program Digitizing "Endless Forms Most Beautiful and Most Wonderful": Facilitating Research on Imperiled Plants with Extreme Morphologies. Subcontract under Missouri Botanical Garden. (\$95,330).

Herbarium and UMMZ (Mollusks)

National Science Foundation Emerging Frontiers Thematic Collection Network.

Documenting the Occurrence through Space & Time of Aquatic Non-indigenous Fish, Mollusks, Algae, & Plants Threatening North America's Great Lakes. (\$429,777).

UMMZ – Reptiles and Amphibians, Mammals

National Science Foundation, Thematic Collections Networks: oVert: Open Exploration of Vertebrate Diversity in 3D. (\$207,250).

UMMZ - Mollusks

National Science Foundation Digitization TCN InvertEBase-Reaching Back to See the Future: Species-Rich Invertebrate Faunas Document Causes and Consequences of Biodiversity Shifts. (\$250,746).

COMBINED MICH & UMMZ STATISTICS

PERSONNEL

Category	Herbarium	Birds	Fish	Insects	Mammals	Mollusks	Reptiles & Amphibians	TOTAL
Faculty Curator	4	1	1	2	1	2	2	13
Staff/Adjunct Curator	1				2			3
Collection Manager	2	1	1				1	5
Collection Manager / Research Scientist	1			1	1	1		4
Emeritus Curator	3		2	2	1	1	1	10
Research Scientist	2			2			1	5
Research Associate	1							1
Graduate Student Curatorial Assistants	4	1		1	3	2	2	13
Project Managers	3							3
Postdoctoral Fellow		2				1	2	5
Graduate Student	1	3	1	1	3	3	5	17
Undergraduate Assistants	6	5	1	8	1	22	6	49
Volunteers		10			1	1		12
Non-student Technician	6			2				8
Undergraduate Independent Research (unpaid)				4				4
Division Affiliates					3			3
oVert Research Assistants					1.5*		1.5*	3
Graduate Research Assistants						3		3
TOTAL	34	23	6	23	17.5	36	21.5	161

(*) Both the UMMZ Mammal Division and the UMMZ Reptile & Amphibian Division utilized three oVert Research Assistants. The number was split evenly (1.5*) between both divisions to reflect the total number of individuals working with the UM Herbarium and UMMZ.

COMBINED MICH & UMMZ STATISTICS

COLLECTION GROWTH / DATA ENHANCMENT

Category	Herbarium	Birds	Fish	Insects	Mammals	Mollusks	Reptiles & Amphibians	TOTAL
Accessions	22	26	34	4		15	21	122
Accessions - Total # of Specimens	1,283	147	10,065	4,242		170	2,352	18,259
Specimens Prepared	2,523	196		3,816		176		6,711
Data Entries Modified	345,638	4,857	1,424	6,319	369	22,517	2,870	383,994

COLLECTION TRANSACTIONS

Category	Herbarium	Birds	Fish	Insects	Mammals	Mollusks	Reptiles & Amphibians	TOTAL
Loans	47	26	26	19	43	8	28	197
Loaned Specimens	2,615	1,096	2,268	9,111	880	223	583	16,776
Other Transactions	11			19	6	5	11	52
Other Transaction Specimens	734			3,929	49		264	4,976
Gifts/Permanent Loans (Tissues)	15	11	3	4	8		4	45
Gift/Permanent Loan Specimens	15	104	17	2,038	130		118	2,422
Total for Research	41	8	28	41	55	4	39	216
Total for Education	6	12	1	0.5	2	3	4	28.5
Total for Art		1		0.5		1		2.5

INQUIRIES AND DATA REQUESTS

Category	Herbarium	Birds	Fish	Insects	Mammals	Mollusks	Reptiles & Amphibians	TOTAL
General Inquiries	16	2	15	22	190	22	15	282
Data Request	4	10	10	22	11	26	10	93

VISITATION – numbers reflect total number of visits (on-line and register book); total number of visitors vary with detail from each respective division; numbers underrepresent actual visitation

Category	Herbarium	Birds	Fish	Insects	Mammals	Mollusks	Reptiles & Amphibians	TOTAL
On-line Visitors Form (Visits)	18	9	5	38	77	7	3	157
Register Book (Visits)	29	9	64	57	71	2	16	248
Total Visitors	29	17	64	57	457	15	16	655

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

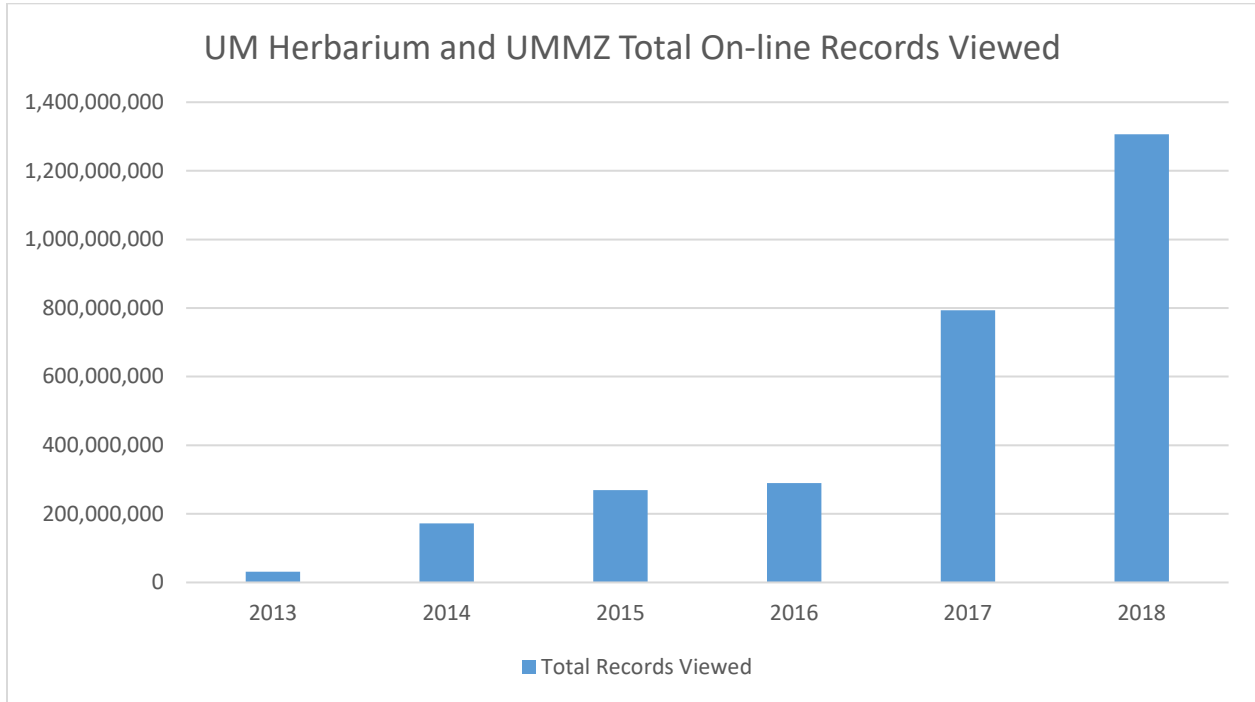
COMBINED MICH & UMMZ STATISTICS

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Herbarium					*****
GBIF Bird	12,407	516,898,615	516,898,615	516,898,615	from 8 Feb 2013
GBIF Fish	3,519	26,445,469	26,445,469	26,445,469	from 2 Aug 2018
GBIF Insect	52	190,501	190,501	190,501	from 21 Dec 2018
GBIF Mammal	12,249	324,816,946	324,816,946	324,816,946	from 22 Apr 2013
GBIF Mollusk	1,925	27,655,248	27,655,248	27,655,248	from 13 Jul 2018
GBIF Reptile/Amphibian	7,396	404,854,235	404,854,235	404,854,235	from 11 Dec 2013
iDigBio Herbarium Bryophyte	25,365	34,860	101,278	101,278	from Jan 2015
iDigBio Herbarium Lichen	1,407	8,213	51,922	51,922	from Jan 2015
iDigBio Herbarium Macroalgal	22,170	28,727	64	28,727	from Mar 2015
iDigBio Herbarium Midwest Herbaria	105,117	274,247	638	274,247	from Aug 2015
iDigBio Herbarium Mycology	8,285	89,249	170,394	170,394	from Jan 2015
iDigBio AquaticInvasives Fish	48,745	32,542	25	32,542	from Oct 2016
iDigBio AquaticInvasives Mollusks	2,563	25,876	11	25,876	from Oct 2016
iDigBio Bird	380,919	511,204	185,756	511,204	from Jan 2015
iDigBio Fish	7,041	543,351	303	543,351	from Aug 2018
iDigBio Insect					*****
iDigBio Mammal	28,003	561,262	117,460	561,262	from Jan 2015
iDigBio Mollusk	2,637	5,515	11	5,515	from Jul 2018
iDigBio Reptile/Amphibian	82,093	246,844	166,632	246,844	from Jan 2015
FishNet2 Fish					from Aug 2011
VertNet Bird	1,711	280,803	600,921	600,921	from Apr 2014
VertNet Mammal	2,175	230,107	975,086	975,086	from Apr 2014
VertNet Reptile/Amphibian	2,352	145,102	413,351	413,351	from Apr 2014
GreatLakesIN Herbarium		492	492	492	23 Mar - 31 Aug 2018
GreatLakesIN Fish		47,442	47,442	47,442	23 Mar - 31 Aug 2018
GreatLakesIN Mollusk		69,985	69,985	69,985	23 Mar - 31 Aug 2018
IvertEBase Mollusk	161	51,975	51,975	51,975	23 Mar - 24 August 2018
Macroalgal Herbarium	17,911	273,035	273,035	273,035	1 Mar - 4 Sep 2018
Consortium of Midwest Herbaria	96,573	549,453	549,453	549,453	23 Mar - 31 Dec 2018
Mycology Herbarium	139,761	20,224	20,224	20,224	Mar - Sep 2018
Lichen Herbarium	8,836	24,903	24,903	24,903	Mar & Apr 2018
Bryophyte Herbarium	33,176	52,438	52,438	52,438	Mar & Apr 2018
JSTOR Herbarium	3,545	9,411	9,411	9,411	from Jan 2016
MI Flora Herbarium					~2012
TOTAL COMBINED	1,058,094	1,304,978,274	1,304,744,224	1,306,502,892	

COMBINED MICH & UMMZ STATISTICS

GLOBAL AGGREGATORS / DATA PORTALS



Year	Total Records Viewed	Number of On-line Portals
2013	30,938,624	4
2014	171,862,000	7
2015	269,169,750	15
2016	289,584,030	19
2017	793,222,043	18
2018	1,306,502,892	28
TOTAL	2,861,279,339	
AVERAGE	476,879,890	

MORPHOSOURCE – Digital repository containing 3D media (raw micro-CT data and surface meshes) from UMMZ specimens

UMMZ Division	Request	Total Media Available	Total Downloads	Total Download Users
Bird	0	1	2	2
Fish	0	2	0	0
Mammal	31	1,176	6,054	2,589
Reptile/Amphibians	193	837	540	337
TOTALS	224	2,016	6,596	2,928

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
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COMBINED MICH & UMMZ STATISTICS

UM DIGITAL LIBRARY

Collection	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views	Origin Date
Herbarium Algae Type Collection (herb6ic)	733	95	12.96	6,361	801	12.59	since 2015
Herbarium Bryophyte Type Collection (herb3ic)	2,650	335	12.64	7,468	135	1.81	since 2015
Herbarium Fungus and Lichen Type Collection (herb4ic)	2,804	329	11.73	5,940	124	2.09	since 2015
Herbarium Fungus Collection Database (herb5ic)	680	96	14.12	7,138	686	9.61	since 2015
Herbarium Fungus Monographs (fung1tc)	583	6	1.03	45,873	38	0.08	since 2015
Herbarium Vascular Plant Type Collection with Specimen Image (herb2ic)	3,726	384	10.31	55,332	1,828	3.30	since 2015
Herbarium Fungus Collection Database (fung1ic)	1,867	289	15.48	3,489	4	0.11	since 2015
Herbarium Fungus Image Database (fung2ic)	1,786	304	17.02	100,916	731	0.72	since 2015
Herbarium Herbs (herb1ic)	0	0	#DIV/0!	24	0	0.00	since 2015
Herbarium Krieger's Watercolors of Fungi (fuwatic)	2,368	338	14.27	18,109	499	2.76	since 2015
UMMZ Amphibian and Reptile Audio Files (amph2ic)	1,624	296	18.23	2,126	559	26.29	since 2015
UMMZ Amphibian and Reptile Catalogue (amph3ic)	4,550	583	12.81	4,130	199	4.82	since 2015
UMMZ Amphibian and Reptile Type Specimens (amph1ic)	2,109	325	15.41	9,793	860	8.78	since 2015
UMMZ Distribution Maps of Michigan Fishes (fish4ic)	1,671	289	17.30	3,659	27	0.74	since 2015
UMMZ Fish Collection Database (fish1ic)	1,782	294	16.50	3,231	4	0.12	since 2015
UMMZ Fish Field Notes (fish3ic)	1,768	351	19.85	4,194	511	12.18	since 2015
UMMZ Fish Species Descriptions (fish5ic)	1,793	289	16.12	1,837	5	0.27	since 2015
UMMZ Fish Specimen Image Collection (fish2ic)	2,693	316	11.73	30,893	348	1.13	since 2015
UMMZ Herpetology Field Notebooks (rept2ic)	1,106	181	16.37	23,911	3,429	14.34	available since 2018
UMMZ Herpetology Predator and Prey Collection (rept3ic)	882	93	10.54	33,099	6,438	19.45	available since 2018
UMMZ Herpetology Radiographs (rept1ic)	1,736	250	14.40	27,773	1,974	7.11	available since 2016

COMBINED MICH & UMMZ STATISTICS

UM DIGITAL LIBRARY – Continued

Collection	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views	Origin Date
UMMZ Mammal Division Collection Database with Specimen Images (mam1ic)	2,570	387	15.06	22,086	326	1.48	since 2015
UMMZ Mammal Division Field Notes (mam3ic)	1,660	314	18.92	1,692	401	23.70	since 2015
UMMZ Mammal Division Division Maps (mam2ic)	1,603	288	17.97	1,958	64	3.27	since 2015
TOTAL	44,744	6,432	14.38	421,032	19,991	4.75	

UM DIGITAL LIBRARY – Year Totals

Year	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views
2015	25,029	3,040	12.15	153,181	1,773	1.16
2016	84,193	4,165	4.95	520,296	11,971	2.30
2017	65,890	15,502	23.53	375,955	14,850	3.95
2018	44,744	6,432	14.38	421,032	19,991	4.75
TOTAL	219,856	29,139	13.25	1,470,464	48,585	3.30

MEDIA VIEW STATISTICS – iDigBio – Integrated Digitized Biocollections

Division	Year			
	2015	2016	2017	2018
iDigBio Herbarium Bryophyte	47,894	90,908	44,079	19,124
iDigBio Herbarium Lichen	22,162	41,957	7,241	10,161
iDigBio Herbarium Macroalgal	36	162	6,240	18
iDigBio Herbarium Midwest Herbaria	11	225	1,528	383
iDigBio Herbarium Mycology	55,808	136,986	23,724	35,823
iDigBio Aquatic Invasives Fish				8
TOTALS	125,911	270,238	82,812	65,517

UM HERBARIUM

- Division Details provided by Rich Rabeler and Pat Rogers

PERSONNEL

Title	Name(s)
Faculty Curator	Chris Dick, Tim James, Robyn Burnham, Y.L. Qiu and Stephen Smith
Staff Curator	Tony Reznicek
Collection Manager / Research Scientist	Rich Rabeler
Collection Manager	Pat Rogers and Bev Walters (until 2 August 2018)
Emeritus Curator	Mike Wynne, Paul Berry and Robyn Burnham (retired 31 May 2018)
Research Scientist	Chris Anderson and Tony Reznicek
Research Associate	Mike Penskar
Graduate Student Curatorial Assistants	Cindy Bick (winter - part), Jacqueline Popma, Caroline Parins-Fukuchi (winter - part) and Tamara Milton (Fall)
Project Managers	Matthew Foltz (Mycportal TCN - until 2/2018); Diego Barroso (Invasives TCN - until 5/18) and Mackenzie Caple (CSBR - until 6/18)
Non-student Technician	Amanda Klain, Kristina Elkins, Kim Martin, Nancy Stoll, Rachel Pernik and Cayla Tinney
Graduate Student	Dominic Hayes (School of Music, Theatre and Dance)
Undergraduate Assistants	Anna Hamilton, Molly Ng, Ashley Gignac, Molly Radosevich, Dana Reijerkerk and Alison Garrett

COLLECTION GROWTH / DATA ENHANCEMENT

Category	Number
Accessions	22 accessions (1,283 specimens)
Mounted Plants	80 treatment events (2,523 specimens)
Data Entries	341,697 created, 7,947 cataloged, 345,638 modified

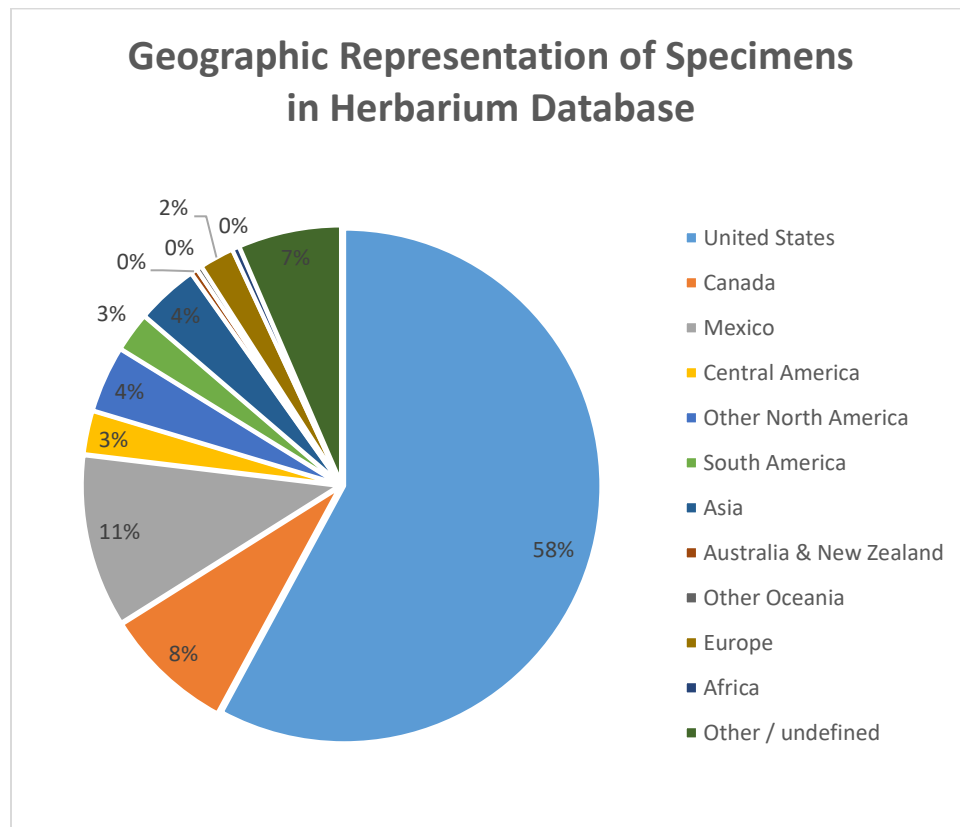
TAXONOMIC BREAKDOWN / TYPES / DATABASE STATUS

Category	Number
Taxa Represented	963 Families, 10102 Genera, 82813 species (from Specify Statistics Holdings tab)
Types Represented	24,909 type specimens (indicated in Specify Statistics tab): 5 Epitype, 4,874 Holotype, 6 Isoepitype, 272 Isolectotype, 41 Isoneotype, 8 Isoparatype, 1,428 Isosytype, 13,644 Isotype, 153 Lectotype, 1 Merotype, 31 Neotype, 3477 Paratype, 392 Syntype, 57 Topotype
Percent of Georeferenced Specimens	32.61% of specimens in Specify
Highest Catalog Number	1750000
Percent Databased	55.93% of specimens in Specify (978803/1750000)

UM HERBARIUM

GEOGRAPHIC DISTRIBUTION

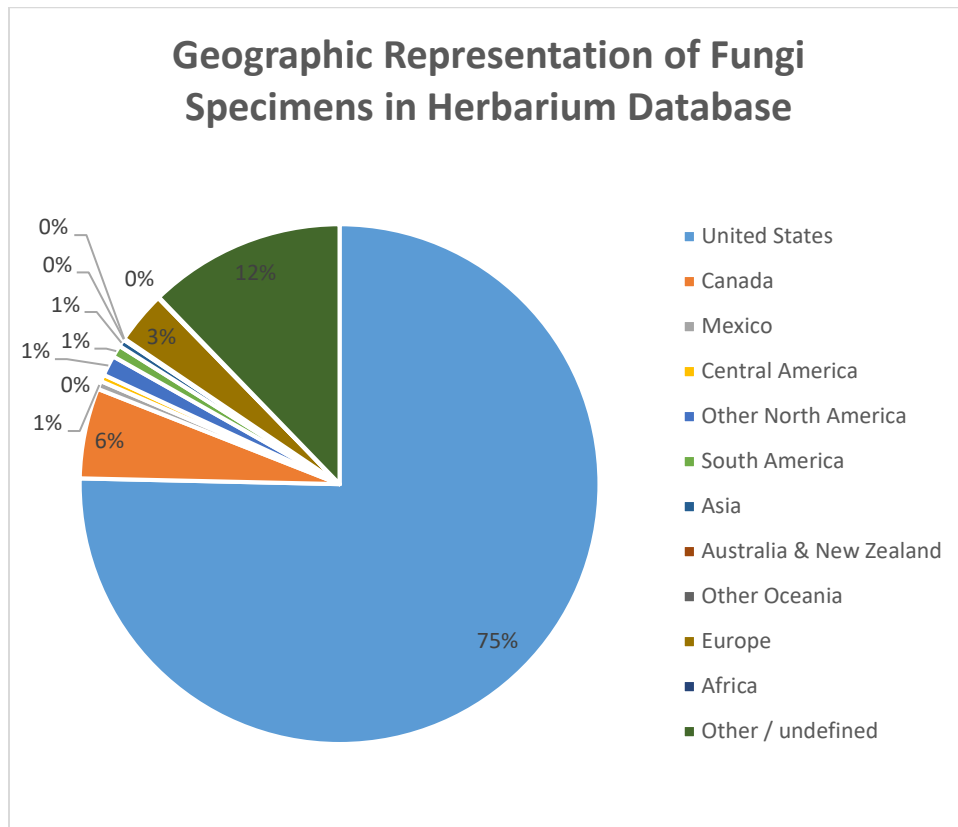
Global Locality	Total Herbarium Specimens in Specify	Percent of 978,803
United States	566,641	57.89
Canada	80,007	8.17
Mexico	106,093	10.84
Central America	26,693	2.73
Other North America	40,789	4.17
South America	24,324	2.49
Asia	38,245	3.91
Australia & New Zealand	4,046	0.41
Other Oceania	3,156	0.32
Europe	21,183	2.16
Africa	4,298	0.44
Other / undefined	63,328	6.47
TOTAL	978,803	



UM HERBARIUM → Kingdom = Fungi

GEOGRAPHIC DISTRIBUTION

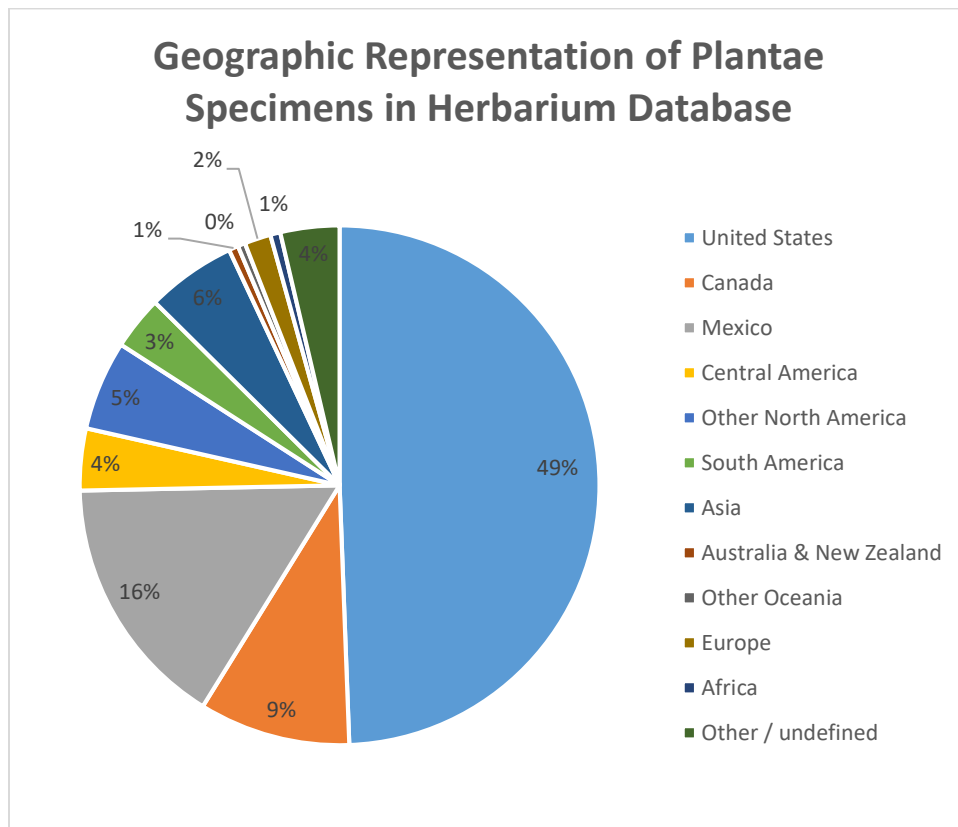
Global Locality	Total Fungi Specimens in Specify	Percent of 320,144
United States	241,241	75.35
Canada	17,995	5.62
Mexico	1,638	0.51
Central America	1,346	0.42
Other North America	4,064	1.27
South America	2,392	0.75
Asia	1,463	0.46
Australia & New Zealand	158	0.05
Other Oceania	106	0.03
Europe	10,394	3.25
Africa	194	0.06
Other / undefined	39,153	12.23
TOTAL	320,144	



UM HERBARIUM → Kingdom = Plantae

GEOGRAPHIC DISTRIBUTION

Global Locality	Total Plantae Specimens in Specify	Percent of 658,659
United States	325,400	49.40
Canada	62,012	9.41
Mexico	104,455	15.86
Central America	25,347	3.85
Other North America	36,725	5.58
South America	21,932	3.33
Asia	36,782	5.58
Australia & New Zealand	3,888	0.59
Other Oceania	3,050	0.46
Europe	10,789	1.64
Africa	4,104	0.62
Other / undefined	24,175	3.67
TOTAL	658,659	



UM HERBARIUM

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database

Regional Locality	Total Herbarium Specimens in Specify	Percent of 978,803
Michigan	235,738	24.08
Midwest USA	280,671	28.67
Great Lakes US (w/PA & NY)	290,387	29.67
Great Lakes US (no PA & NY)	269,302	27.51
Ontario Province, Canada	33,046	3.38
North America TOTAL	820,223	83.80

UM HERBARIUM → Kingdom = Fungi

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database

Regional Locality	Total Fungi Specimens in Specify	Percent of 320,144
Michigan	89,382	27.92
Midwest USA	107,404	33.55
Great Lakes US (w/PA & NY)	110,732	34.59
Great Lakes US (no PA & NY)	102,869	32.13
Ontario Province, Canada	5,223	1.63
North America TOTAL	266,284	83.18

UM HERBARIUM → Kingdom = Plantae

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database

Regional Locality	Total Plantae Specimens in Specify	Percent of 658,659
Michigan	146,356	22.22
Midwest USA	173,267	26.31
Great Lakes US (w/PA & NY)	179,655	27.28
Great Lakes US (no PA & NY)	166,433	25.27
Ontario Province, Canada	27,823	4.22
North America TOTAL	553,939	84.10

UM HERBARIUM

COLLECTION TRANSACTIONS

Category	Number
Loans	47 loans (2,615 specimens)
Borrow / Loan from Other Institution	11 loans (734 specimens)
Gifts	15 Fungi samples for DNA
TOTAL Transactions	73 transactions (67 Research, 6 Education, 0 Art), 3,364 specimens

INQUIRIES AND DATA REQUESTS

Category	Number
Photo Request	6 specimen photos, 1 reproduce a photo
Destructive Sampling	1
General Data Requests	4
Specimen Holding Question	6

VISITATION

Category	Number
On-line Visitors Form	18 visits
Visitor Register	29 visits

CITATIONS (Works Published by Curators, Staff and Students, and from External Collection Use)

Category	Number
Total Citations	74,833
Citations Since 2014	23,156
Citations of Papers Published in Last 5 Years	2,065

KEY CURATION ACTIVITIES

Category	Details
Progress from Grants	Incorporation of most data/images from two TCN and one CSBR projects.
Grants	Pteridophyte TCN, Endless Forms TCN received; All-Asia TCN submitted
Other	Collection catalog through the Specify database put onto the Integrated Publishing Toolkit (IPT) to connect to global aggregators
	UM HERBARIUM and UMMZ became Founding Members of the Specify Collections Consortium

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

UM HERBARIUM

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Herbarium					registered 23 Jan 2019
iDigBio Herbarium Bryophyte	25,365	34,860	101,278	101,278	from Jan 2015
iDigBio Herbarium Lichen	1,407	8,213	51,922	51,922	from Jan 2015
iDigBio Herbarium Macroalgal	22,170	28,727	64	28,727	from Mar 2015
iDigBio Herbarium Midwest Herbaria	105,117	274,247	638	274,247	from Aug 2015
iDigBio Herbarium Mycology	8,285	89,249	170,394	170,394	from Jan 2015
GreatLakesIN Herbarium		492	492	492	23 Mar - 31 Aug 2018
Macroalgal Herbarium	17,911	273,035	273,035	273,035	1 Mar - 4 Sep 2018
Consortium of Midwest Herbaria	96,573	549,453	549,453	549,453	23 Mar - 31 Dec 2018
Mycology Herbarium	139,761	20,224	20,224	20,224	Mar - Sep 2018
Lichen Herbarium	8,836	24,903	24,903	24,903	Mar & Apr 2018
Bryophyte Herbarium	33,176	52,438	52,438	52,438	Mar & Apr 2018
JSTOR Herbarium	3,545	9,411	9,411	9,411	from Jan 2016
TOTAL	462,146	1,365,252	1,254,252	1,556,524	

GBIF – Global Biodiversity Information Facility; Registered 23 January 2019

Statistic Category	2018 year total	Average per month
Number of Download Events (Search)		
Number of Records Downloaded (total # of specimens)		
Number of Downloads Requiring Georeferenced Records		
Number of Downloads Using a Polygon Locality Region		
Number of Downloads Based on a Country/Specific Locality Search		
Percent of Searches Requesting Georeferenced Specimens		
Maximum Percent Requesting Georeferencing, Polygon or Locality *** (see next page)		

UM HERBARIUM

GBIF – Global Biodiversity Information Facility

*** GBIF Maximum percent assumes that georeferencing, polygon and country search are independent - data is not available to separate this. Maximum percent represents the greatest percent possible for searches looking for locality information.

iDigBio – Integrated Digitized Biocollections; 2018 Year Total

Statistic Category	Search – instances a record from this recordset matched a search query	Download – instances a record from this recordset was downloaded	Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	Records Viewed – how many specimen records were opened and viewed in full detail	Media Viewed – how many media records were opened and viewed in full detail
iDigBio Herbarium Bryophyte	19,435,866,537	25,365	34,860	101,278	19,124
iDigBio Herbarium Lichen	6,697,941,926	1,407	8,213	51,922	10,161
iDigBio Herbarium Macroalgal	11,758,716,007	22,170	28,727	64	18
iDigBio Herbarium Midwest Herbaria	31,448,999,695	105,117	274,247	638	383
iDigBio Herbarium Mycology	39,778,794,710	8,285	89,249	170,394	35,823
TOTAL	109,120,318,875	162,344	435,296	324,296	65,509

iDigBio – Integrated Digitized Biocollections; 2018 Monthly Average

Statistic Category	Search – instances a record from this recordset matched a search query	Download – instances a record from this recordset was downloaded	Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	Records Viewed – how many specimen records were opened and viewed in full detail	Media Viewed – how many media records were opened and viewed in full detail
iDigBio Herbarium Bryophyte	1,619,655,544.75	2,113.75	2,905.00	8,439.83	1,593.67
iDigBio Herbarium Lichen	558,161,827.17	117.25	684.42	4,326.83	846.75
iDigBio Herbarium Macroalgal	979,893,000.58	1,847.50	2,393.92	5.33	1.50
iDigBio Herbarium Midwest Herbaria	2,620,749,974.58	8,759.75	22,853.92	53.17	31.92
iDigBio Herbarium Mycology	3,314,899,559	690	7,437	14,200	2,985
AVERAGE	1,818,671,981.25	2,705.73	7,254.93	5,404.93	1,091.82

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

UM HERBARIUM

UM DIGITAL LIBRARY

Collection	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views	Origin Date
Herbarium Algae Type Collection (herb6ic)	733	95	12.96	6,361	801	12.59	since 2015
Herbarium Bryophyte Type Collection (herb3ic)	2,650	335	12.64	7,468	135	1.81	since 2015
Herbarium Fungus and Lichen Type Collection (herb4ic)	2,804	329	11.73	5,940	124	2.09	since 2015
Herbarium Fungus Collection Database (herb5ic)	680	96	14.12	7,138	686	9.61	since 2015
Herbarium Fungus Monographs (fung1tc)	583	6	1.03	45,873	38	0.08	since 2015
Herbarium Vascular Plant Type Collection with Specimen Image (herb2ic)	3,726	384	10.31	55,332	1,828	3.30	since 2015
Herbarium Fungus Collection Database (fung1ic)	1,867	289	15.48	3,489	4	0.11	since 2015
Herbarium Fungus Image Database (fung2ic)	1,786	304	17.02	100,916	731	0.72	since 2015
Herbarium Herbs (herb1ic)	0	0	#DIV/0!	24	0	0.00	since 2015
Herbarium Krieger's Watercolors of Fungi (fuwatic)	2,368	338	14.27	18,109	499	2.76	since 2015
TOTAL	17,197	2,176	12.65	250,650	4,846	1.93	

Year TOTAL	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views
2015	10,681	1,148	10.75	131,167	1,352	1.03
2016	20,275	1,556	7.67	310,841	10,537	3.39
2017	25,186	5,425	21.54	253,590	10,467	4.13
2018	17,197	2,176	12.65	250,650	4,846	1.93
TOTAL 2015-2018	73,339	10,305	14.05	946,248	27,202	2.87

UMMZ BIRD DIVISION

- Division Details provided by Janet Hinshaw and Brett Benz

PERSONNEL

Title	Name(s)
Curator	Benjamin Winger
Collection Managers	Janet Hinshaw (retired Dec 2018), Brett Benz (started 14 Jan 2019)
Postdoctoral Fellows	Brian Weeks and Shane Dubay
Graduate Students	Susanna Campbell, Teresa Pegan and Eric Gulson-Castillo
Graduate Student Curatorial Assistants	Camden Gowler
Undergraduate Assistants	Jessica Yan, Bendan Nee, Vera Ting, Danielle Goodvin and Daniel Wu
Volunteers	Christine Cieslak, Elliot Kurtz, Lisa Kim, Rachel Wadleigh, Rosemary Ziemba, Dee Armstrong, Benjamin Hack, Deborah Stone-Richard, Astrid Fortier Muller-Karger and Kathy Telfer

COLLECTION GROWTH / DATA ENHANCEMENT

Category	Number
Study Skins Prepared	110
Skeletal Material Prepared	86
Accessions	26 accessions (147 specimens)
Data entries	814 created, 614 cataloged, 4,857 modified

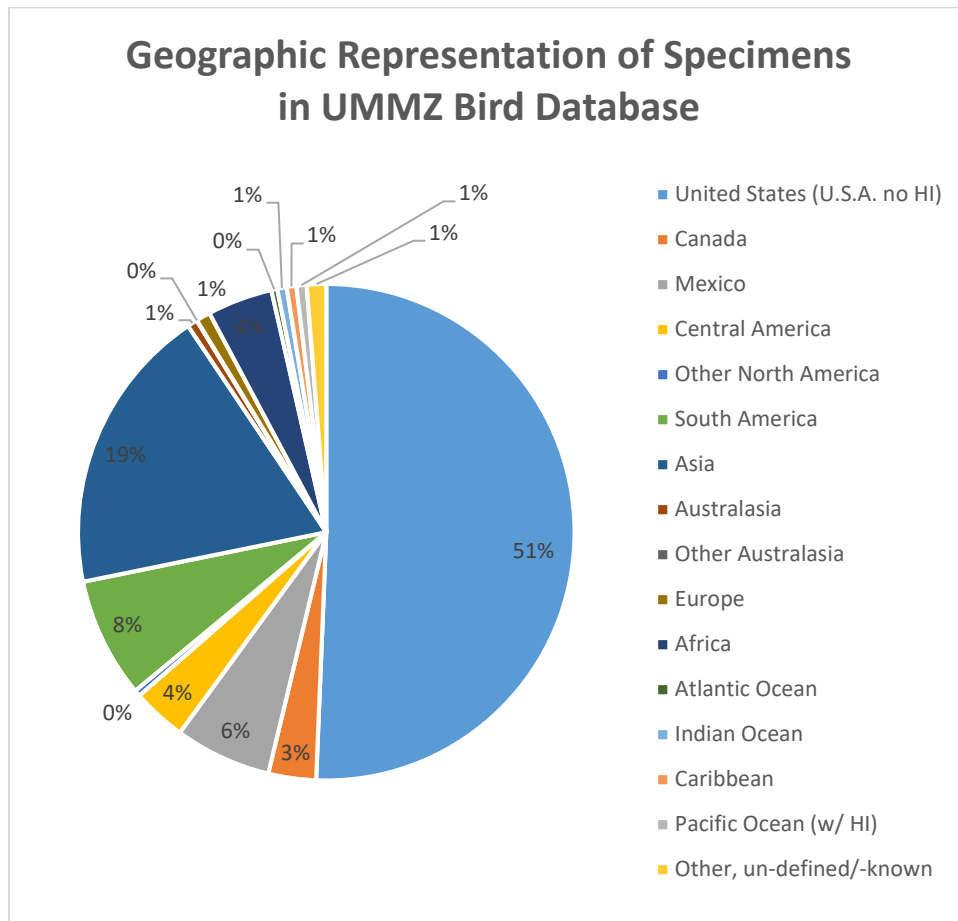
TAXONOMIC BREAKDOWN / TYPES / DATABASE STATUS

Category	Number
Taxa Represented	355 Families, 4,803 Genera, 17,090 species (from Specify Statistics Holdings tab)
Types Represented	552 type specimens (indicated in Specify Statistics tab): 12 Cotype, 463 Holotype, 3 Lectotype, 9 Paratype, 5 Syntype, 60 Topotype
Percent of Georeferenced Specimens	91.48% of specimens in Specify
Highest Catalog Number	246000
Percent Databased	86.79% of specimens in Specify (213514/246000) - 100% of present collection digitized

UMMZ BIRD DIVISION

GEOGRAPHIC DISTRIBUTION

Locality	Total Specimens in Specify	Percent of 213,514
United States (U.S.A. no HI)	108,149	50.65
Canada	6,629	3.10
Mexico	13,424	6.29
Central America	7,526	3.52
Other North America	865	0.41
South America	16,708	7.83
Asia	40,151	18.80
Australasia	1,398	0.65
Other Australasia	44	0.02
Europe	1,969	0.92
Africa	9,070	4.25
Atlantic Ocean	821	0.38
Indian Ocean	1,309	0.61
Caribbean	1,338	0.63
Pacific Ocean (w/ HI)	1,419	0.66
Other, un-defined/-known	2,694	1.26
TOTAL	213,514	



UMMZ BIRD DIVISION

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database

Regional Locality	Total Specimens in Specify	Percent of 213,514
Michigan	44,284	20.74
Midwest USA	54,238	25.40
Great Lakes US (w/PA & NY)	48,492	22.71
Great Lakes US (no PA & NY)	47,332	22.17
Ontario Province, Canada	1,209	0.57
North America TOTAL	129,039	60.44

COLLECTION TRANSACTIONS

Category	Number
Education Loans	5 loans (82 specimens)
Loans	21 loans (1,014 specimens) – 8 Research, 12 Education, 1 Art
Gifts	11 gifts (104 specimens) – tissues and skin/toe clips for DNA
TOTAL Transactions	37 transactions (19 Research, 17 Education, 1 Art), 1,200 specimens

INQUIRIES AND DATA REQUESTS

Category	Number
Photo Request	2
Information Request	10+

VISITATION

Category	Number
On-line Visitors Form	9 visits
Visitor Register	9 visits, 17 visitors

CITATIONS (Works Published by Curators, Staff and Students, and from External Collection Use)

Category	Number
Citing Specimens	1 (connected in Specify)
	Google Scholar publication list being created in 2019

UMMZ BIRD DIVISION

KEY CURATION ACTIVITIES

Category	Details
Other	Collection catalog through the Specify database put onto the Integrated Publishing Toolkit (IPT) to connect to global aggregators
	UM Herbarium and UMMZ became Founding Members of the Specify Collections Consortium
	Continued progress of unpacking after move to RMC
	Collection cabinet labels and label corrections
	Storage locations of specimen added into Specify

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Bird	12,407	516,898,615	516,898,615	516,898,615	from 8 Feb 2013
iDigBio Bird	380,919	511,204	185,756	511,204	from Jan 2015
VertNet Bird	1,711	280,803	600,921	600,921	from Apr 2014
TOTAL	395,037	517,690,622	517,685,292	518,010,740	

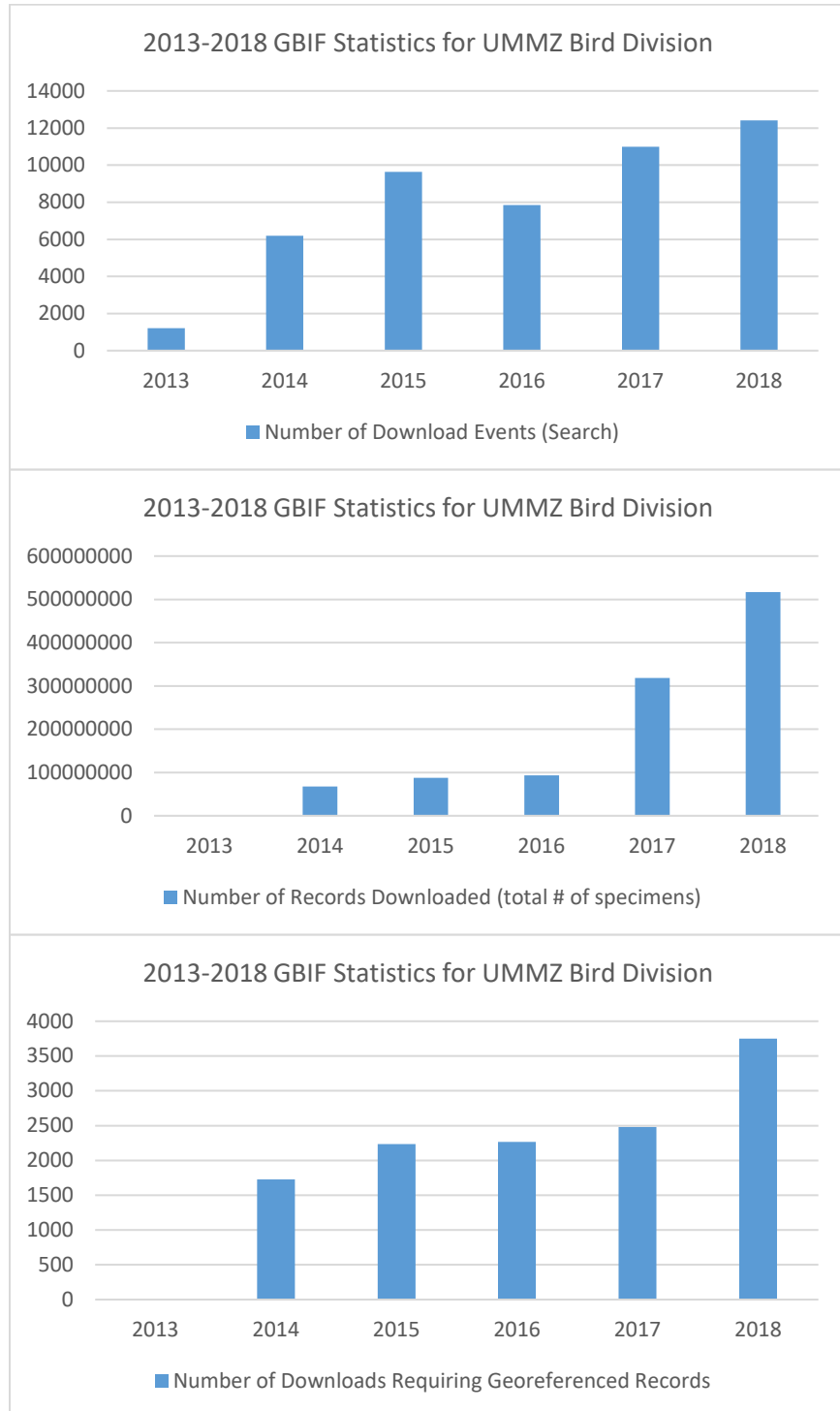
GBIF – Global Biodiversity Information Facility

Statistic Category	2018 year total	Average per month
Number of Download Events (Search)	12,407	1,033.92
Number of Records Downloaded (total # of specimens)	516,898,615	43,074,884.58
Number of Downloads Requiring Georeferenced Records	3,749	312.42
Number of Downloads Using a Polygon Locality Region	1,680	140.00
Number of Downloads Based on a Country/Specific Locality Search	2,260	188.33
Percent of Searches Requesting Georeferenced Specimens	30.22	30.22
Maximum Percent Requesting Georeferencing, Polygon or Locality *** (see next page)	61.97	61.97

UMMZ BIRD DIVISION

GBIF – Global Biodiversity Information Facility

*** GBIF Maximum percent assumes that georeferencing, polygon and country search are independent - data is not available to separate this. Maximum percent represents the greatest percent possible for searches looking for locality information.



UMMZ BIRD DIVISION

iDigBio – Integrated Digitized Biocollections

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query	31,536,237,679	2,628,019,806.58
Download – instances a record from this recordset was downloaded	380,919	31,743.25
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	511,204	42,600.33
Records Viewed – how many specimen records were opened and viewed in full detail	185,756	15,479.67
Media Viewed – how many media records were opened and viewed in full detail	0	0.00

VertNet – Vertebrate Network

Statistic Category	2018 year total	Average per month
Number of searches that retrieved data from the resource	18,203	1,516.92
Number of records retrieved in searches / were pulled to screen	280,803	23,400.25
Number of different countries where searched have been originated	347	28.92
Number of download events retrieved data from the resource / pulled records from the resource 2018	1,711	142.58
Total number of records downloaded	600,921	50,076.75
Number of different countries that downloaded records	157	13.08
Percent that the resource appeared on all download events this month	129	10.76

UMMZ FISH DIVISION

- Division Details provided by Douglas W. Nelson

PERSONNEL

Title	Name(s)
Curator	Hernan Lopez-Fernandez
Collection Manager	Douglas W. Nelson
Emeritus Curators	William L. Fink and Gerald R. Smith
Graduate Students	Thomas Morgan
Undergraduate Student Assistants	Nicholas Hansen and Julia Weiss

COLLECTION GROWTH / DATA ENHANCEMENT

Category	Number
Cataloged Units Added	1,224 lots (10,065 total specimens)
Skeletal Cataloged Units	1
New Taxa	178 species; 36 genera
Accessions	34 (includes incoming loans)
Tissues Cataloged	1,641 (tissue samples)
Stearns Natural History Watercolor Paintings (UMMZ-ST)	Japan (363 plates), Hawaii (32 plates), cataloged in MS Excel
New Collection Added	843 lots (7,854 specimens and 1,270 tissues); from Guyana and Suriname 2018 (H. Lopez-Fernandez)
Exchanges from Royal Ontario Museum:	6 exchanges: 370 cat. lots (2,189 specimens)
Records Modified (in Specify)	1,272 created (timestamp created), 333 cataloged, 1,424 modified (edited)

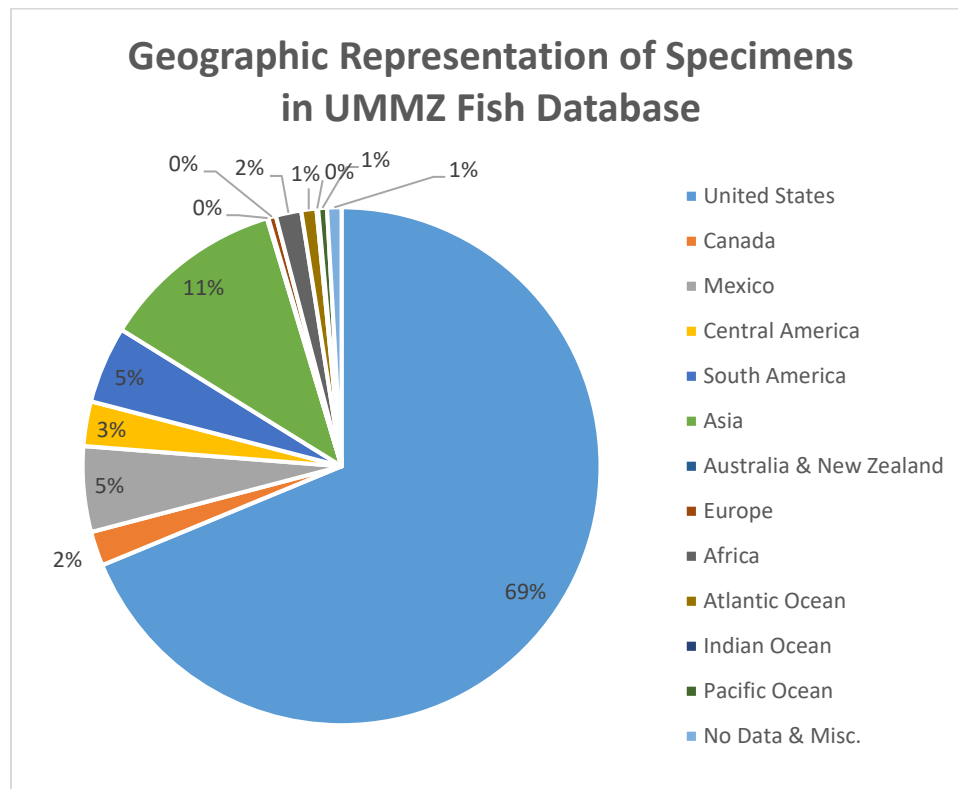
TAXONOMIC BREAKDOWN / TYPES / DATABASE STATUS

Category	Number
Taxa Represented	391 families, 2,905 genera, 10,367 species (including synonyms)
Primary Type Specimens	626 (representing 599 nominal taxa)
Paratype Specimens	4,385 lots (representing 975 nominal taxa)
Percent of Georeferenced Specimens	89.10% of specimens in Specify
Highest Catalog Number	251563
Percent Databased	78.98% of specimens in Specify (198691/251563) – nearly 100% of present collection digitized

UMMZ FISH DIVISION

GEOGRAPHIC DISTRIBUTION – Calculated by Douglas W. Nelson; Cataloged Lots = Cat. Lots

Global Locality	2017 Total Cat. Lots through UMMZ 250339	Cat. Lots Added	2018 Total Cat. Lots through UMMZ 251563
United States	136,507	7	136,514
Canada	4,265	0	4,265
Mexico	10,593	1	10,594
Central America	5,503	24	5,527
South America	8,368	1,167	9,535
Asia	22,846	0	22,846
Australia & New Zealand	167	0	167
Europe	956	0	956
Africa	3,149	13	3,162
Atlantic Ocean	1,877	0	1,877
Indian Ocean	199	0	199
Pacific Ocean	1,097	0	1,097
No Data & Misc.	1,770	12	1,782
TOTAL	197,297	1,224	198,521
TOTAL SPECIMENS	3,461,294	10,065	3,471,359



UMMZ FISH DIVISION

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database;
Calculated by Benjamin M. Hess; North America combined Doug’s totals from United States, Canada, Mexico,
Central America

Regional Locality	Total Fish Specimen Lots in Specify	Percent of 198,521 Lots
Michigan	36,813	18.54
Midwest USA	69,063	34.79
Great Lakes US (w/PA & NY)	57,582	29.01
Great Lakes US (no PA & NY)	53,254	26.83
Ontario Province, Canada	3,433	1.73
North America TOTAL	156,910	79.04

COLLECTION TRANSACTIONS

Category	Number
Gifts Sent	3 tissue gifts (17 lots, 17 specimens) – 3 domestic, 0 foreign
Loans	26 loans (294 lots, 2,268 specimens) – 24 domestic, 2 foreign
TOTAL Transactions	29 transactions (28 Research, 1 Education), 311 lots (2,285 specimens)

INQUIRIES AND DATA REQUESTS

Category	Number
Number of Inquiries Answered	15+
Number of Data Requests	10+

VISITATION

Category	Number
On-line Visitors Form	5 visits
Visitor Register	64 representing 47 institutions

CITATIONS (Works Published by Curators, Staff and Students, and from External Collection Use)

Category	Number
Publications citing UMMZ materials in 2018 (Google Scholar search)	37

UMMZ FISH DIVISION

KEY CURATION ACTIVITIES

Category	Details
Other	Collection catalog through the Specify database put onto the Integrated Publishing Toolkit (IPT) to connect to global aggregators
	UM Herbarium and UMMZ became Founding Members of the Specify Collections Consortium
	Addition of new liquid nitrogen freezer dedicated to Fish Division
	Organize, label and database ROM exchange and Guyana specimens

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Fish	3,519	26,445,469	26,445,469	26,445,469	from 2 Aug 2018
iDigBio AquaticInvasives Fish	48,745	32,542	25	32,542	from Oct 2016
iDigBio Fish	7,041	543,351	303	543,351	from Aug 2018
FishNet2 Fish					from Aug 2011
GreatLakesIN Fish		47,442	47,442	47,442	23 Mar - 31 Aug 2018
TOTAL	59,305	27,068,804	26,493,239	27,068,804	

GBIF – Global Biodiversity Information Facility; Registered 2 August 2018

Statistic Category	2018 year total	Average per month
Number of Download Events (Search)	12,407	1,033.92
Number of Records Downloaded (total # of specimens)	516,898,615	43,074,884.58
Number of Downloads Requiring Georeferenced Records	3,749	312.42
Number of Downloads Using a Polygon Locality Region	1,680	140.00
Number of Downloads Based on a Country/Specific Locality Search	2,260	188.33
Percent of Searches Requesting Georeferenced Specimens	30.22	30.22
Maximum Percent Requesting Georeferencing, Polygon or Locality *** (see next page)	61.97	61.97

UMMZ FISH DIVISION

GBIF – Global Biodiversity Information Facility

*** GBIF Maximum percent assumes that georeferencing, polygon and country search are independent - data is not available to separate this. Maximum percent represents the greatest percent possible for searches looking for locality information.

iDigBio – Integrated Digitized Biocollections; Aquatic Invasives Fish Division

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query	5,189,245,516	432,437,126.33
Download – instances a record from this recordset was downloaded	48,745	4,062.08
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	32,542	2,711.83
Records Viewed – how many specimen records were opened and viewed in full detail	25	2.08
Media Viewed – how many media records were opened and viewed in full detail	8	0.67

iDigBio – Integrated Digitized Biocollections; Fish Division

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query	10,199,669,553	2,039,933,910.60
Download – instances a record from this recordset was downloaded	7,041	1,408.20
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	543,351	108,670.20
Records Viewed – how many specimen records were opened and viewed in full detail	303	60.60
Media Viewed – how many media records were opened and viewed in full detail	0	0.00

UMMZ FISH DIVISION

UM DIGITAL LIBRARY

Collection	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views	Origin Date
UMMZ Distribution Maps of Michigan Fishes (fish4ic)	1,671	289	17.30	3,659	27	0.74	since 2015
UMMZ Fish Collection Database (fish1ic)	1,782	294	16.50	3,231	4	0.12	since 2015
UMMZ Fish Field Notes (fish3ic)	1,768	351	19.85	4,194	511	12.18	since 2015
UMMZ Fish Species Descriptions (fish5ic)	1,793	289	16.12	1,837	5	0.27	since 2015
UMMZ Fish Specimen Image Collection (fish2ic)	2,693	316	11.73	30,893	348	1.13	since 2015
TOTAL	9,707	1,539	15.85	43,814	895	2.04	

Year TOTAL	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views
2015	6,300	831	13.19	10,777	159	1.48
2016	12,749	1,104	8.66	42,991	215	0.50
2017	16,148	4,382	27.14	26,655	327	1.23
2018	9,707	1,539	15.85	43,814	895	2.04
TOTAL 2015-2018	44,904	7,856	17.50	124,237	1,596	1.28

UMMZ INSECT DIVISION

- Division Details provided by Erika Tucker

PERSONNEL

Title	Name(s)
Curators	Barry OConnor and L. Lacey Knowles
Collection Manager / Research Scientist	Erika Tucker (hired 1 June 2018)
Emeritus Curators	Thomas Moore and Barry OConnor (retired Dec 2018)
Researcher Staff	Pavel Klimov (Associate Research Scientist) and Hannah-Maria Jacques (Independent Researcher)
Graduate Students	Tom Hayek (Masters Student - Fall 2018)
Graduate Student Curatorial Assistants	Sasha Bishop (Fall and Winter 2018)
Undergraduate Assistants	Summer 2018: Elizabeth Postema; Fall 2018: Alan Ching, Siena McKim and Ellen James; Winter 2018: Alan Ching, Siena McKim, Ellen James, Henry Smith, Neha Bhomia, Chloe Weise and Troyer Wallace-Evans
Non-student Technicians	Joseph Hartert (MSU paid technician - Summer 2018) and Peregrine Ke-Lind (MSU paid technician - Fall and Winter 2018)
Undergraduate Independent Researchers (Unpaid)	Abby Olson, Liana Meisner-Driscoll, Kevin Moore Jr and Pieter Kraayeveld

COLLECTION GROWTH / DATA ENHANCEMENT

Category	Number
Accessions	4 (3,629 specimens); 613 lots with specimens added to mite collection
Collection Received	5500 slides – mainly predatory mites from plants and insects
Specimens Prepared	216; 3,600 mite slides prepared from new and previously collected lots
Specimens Digitized	28,300
Data Entries	177 cataloged, 5,604 modified; 715 entries in mite Acari database

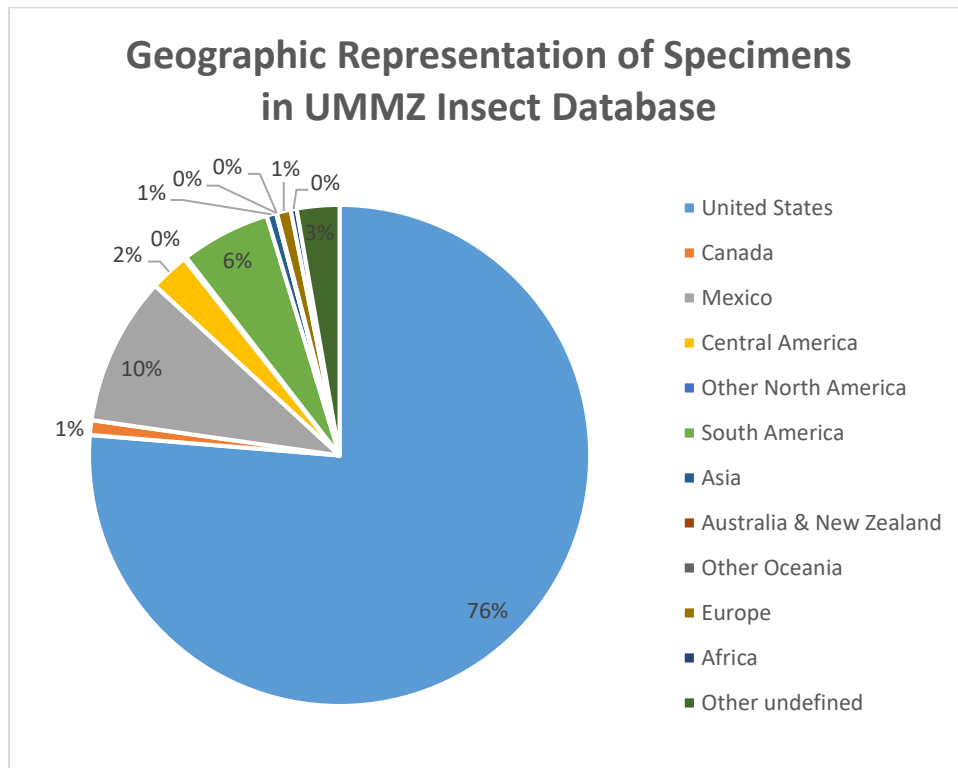
TAXONOMIC BREAKDOWN / TYPES / DATABASE STATUS

Category	Number
Taxa Represented	206 Families, 1,663 Genera, 5,788 species (from Specify Statistics Holdings tab)
Types Represented	37,046 type specimens (indicated in Specify Statistics tab): 2 Holotype, 134 Paratype, 6 Topotype
Percent of Georeferenced Specimens	15.79% of specimens in Specify
Highest Catalog Number	4500000 (Estimated number of specimens in collection)
Percent Databased	06.66% of specimens in Specify (299754/4500000)

UMMZ INSECT DIVISION

GEOGRAPHIC DISTRIBUTION

Locality	Total Specimens in Specify	Percent of 299,754
United States	228,730	76.31%
Canada	2,841	0.95%
Mexico	28,723	9.58%
Central America	7,543	2.52%
Other North America	493	0.16%
South America	17,339	5.78%
Asia	1,855	0.62%
Australia & New Zealand	99	0.03%
Other Oceania	64	0.02%
Europe	2,693	0.90%
Africa	1,138	0.38%
Other / undefined	8,236	2.75%
TOTAL	299,754	



UMMZ INSECT DIVISION

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database

Regional Locality	Total Specimens in Specify	Percent of 299,754
Michigan	67,554	22.54%
Midwest USA	91,453	30.51%
Great Lakes US (w/PA & NY)	81,035	27.03%
Great Lakes US (no PA & NY)	79,017	26.36%
Ontario Province, Canada	1,773	0.59%
North America TOTAL	268,330	89.52%

COLLECTION TRANSACTIONS

Category	Number
Loans (outgoing shipments)	19 (18 lots, 9,111 specimens)
Loan Returns	15 (3789 specimens)
Gifts	4 (2,038 specimens - all mites)
Number of Specimens Shipped	12,852 specimens (6 countries, 20 states, 7 orders)
Returned Loans to UM	4 (150 specimens, 3 orders)
TOTAL Transactions	42 transactions (41 Research, 1 Art/Education), 15,088 specimens

INQUIRIES AND DATA REQUESTS

Category	Number
Identifications	14 requests (255 identifications, 5 orders)
Inquiries about Collection Holdings	22 inquiries (5 countries, 8 orders)
Specimen/Object Images for Requests	8 requests (98 images)

VISITATION

Category	Number
On-line Visitors Form	38 visits
Visitors	57 total short-term visitors (12 researchers, 3 donors, 20 outreach, 22 other)
Collection/Facility Tours	13 tours

UMMZ INSECT DIVISION

CITATIONS (Works Published by Curators, Staff and Students, and from External Collection Use)

Category	Number
Publications Referencing UMMZ Insect Specimens	39

KEY CURATION ACTIVITIES

Category	Details
Grants	Received UMOR grant \$25,192 (\$6,298 UM LSA, \$6,298 UM EEB cost matching)
	Applied for NSF-TCN grant \$367,004 (in review)
	Collaborator on NSF-TCN InvertEBase
	Collaborator on USDA-NIFA-AFRI Native Bee Monitoring Plan for the US (in review)
Other	Collaborator on USDA Pollinator Health Initiative (MSU project)
	Collection catalog through the Specify database put onto the Integrated Publishing Toolkit (IPT) to connect to global aggregators
	UM Herbarium and UMMZ became Founding Members of the Specify Collections Consortium
	Implemented new specimen digitization/data acquisition procedure
	All specimen records now shared with GBIF (MSU project bees excluded)
	Started RMC Prairie Restoration Project
	Facilitated installation of Bartender Label making/barcode producing software for all UMMZ
	Collaborated with UMNHM on “bee-look-alike” project and “local backyard bugs” exhibit

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Insect	52	190,501	190,501	190,501	from 21 Dec 2018
iDigBio Insect					2019
TOTAL	52	190,501	190,501	190,501	

UMMZ INSECT DIVISION

GBIF – Global Biodiversity Information Facility; Registered 21 December 2018

Statistic Category	2018 year total	Average per month
Number of Download Events (Search)	52	4.33
Number of Records Downloaded (total # of specimens)	190,501	15,875.08
Number of Downloads Requiring Georeferenced Records	12	1.00
Number of Downloads Using a Polygon Locality Region	8	0.67
Number of Downloads Based on a Country/Specific Locality Search	7	0.58
Percent of Searches Requesting Georeferenced Specimens	23.08	23.08
Maximum Percent Requesting Georeferencing, Polygon or Locality *** (see below)	51.92	51.92

*** GBIF Maximum percent assumes that georeferencing, polygon and country search are independent - data is not available to separate this. Maximum percent represents the greatest percent possible for searches looking for locality information.

iDigBio – Integrated Digitized Biocollections; Registered 12 April 2019

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query		
Download – instances a record from this recordset was downloaded		
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window		
Records Viewed – how many specimen records were opened and viewed in full detail		
Media Viewed – how many media records were opened and viewed in full detail		

UMMZ MAMMAL DIVISION

- Division Details provided by Cody Thompson

PERSONNEL

Title	Name(s)
Curator	Priscilla Tucker
Collection Manager / Research Scientist	Cody Thompson
Emeritus Curator	Phil Myers
Adjunct Curators/Researchers	Barb Lundrigan and Don Swiderski
Graduate Students	Marcella Baiz, Beatriz Otero-Jimenz and Lisa Walsh
Graduate Student Curatorial Assistants	Cindy Bick, Caroline Parins-Fukuchi and Bian Wang (also contributed to the oVert project)
oVert Research Assistants	Abbey Hines, Greg Pandelis and Erin Westeen
Undergraduate Assistants	Lexi Frank
Volunteers	Olivia Chapman
Affiliates	Giorgia Auteri, Susanna Campbell and Talia Moore

COLLECTION GROWTH / DATA ENHANCEMENT

Category	Number
Voucher Acquisitions	62
Tissue Acquisitions	310
Vouchers Cataloged	1
Tissues Cataloged	0
Records Modified (in Specify)	1 created (timestamp created), 1 cataloged, 369 modified (edited)

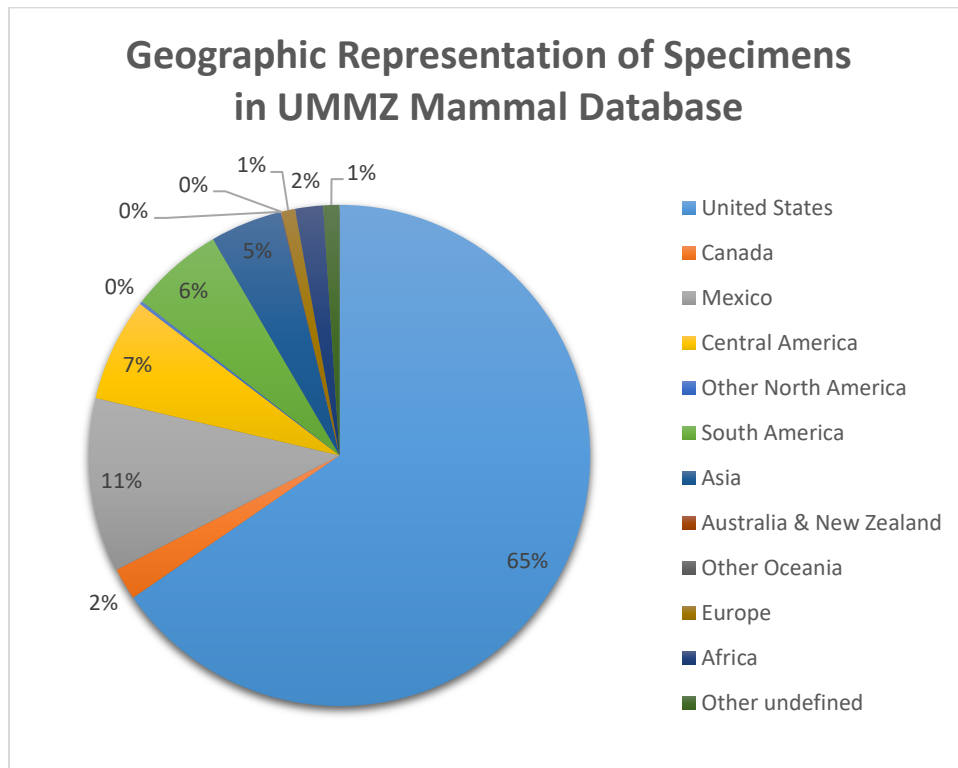
TAXONOMIC BREAKDOWN / TYPES / DATABASE STATUS

Category	Number
Taxa Represented	157 Families, 982 Genera, 2,584 species (from Specify Statistics Holdings tab)
Types Represented	12 type specimens (indicated in Specify Statistics tab): 3 Holotype, 8 Paratype, 1 Type
Percent of Georeferenced Specimens	84.32% of specimens in Specify
Highest Catalog Number	178776
Percent Databased	71.66% of specimens in Specify (128105/178776)

UMMZ MAMMAL DIVISION

GEOGRAPHIC DISTRIBUTION

Locality	Total Specimens in Specify	Percent of 128,105
United States	83,778	65.40
Canada	2,643	2.06
Mexico	14,370	11.22
Central America	8,528	6.66
Other North America	262	0.20
South America	7,726	6.03
Asia	5,954	4.65
Australia & New Zealand	50	0.04
Other Oceania	7	0.01
Europe	1,144	0.89
Africa	2,294	1.79
Other / undefined	1,349	1.05
TOTAL	128,105	



UMMZ MAMMAL DIVISION

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database

Regional Locality	Total Specimens in Specify	Percent of 128,105
Michigan	21,363	16.68
Midwest USA	33,378	26.06
Great Lakes US (w/PA & NY)	25,165	19.64
Great Lakes US (no PA & NY)	24,641	19.24
Ontario Province, Canada	707	0.55
North America TOTAL	109,581	85.54

COLLECTION TRANSACTIONS

Category	Number
Traditional Loans/# of Specimens	43 Loans (880 Specimens)
Permanent Loans/# of Samples	8 Loans (130 Samples)
Loan Returns/# of Specimens	3 Loan (37 Specimens)
Gifts/# of Objects	3 Gifts (12 Objects)
Borrows/# of Specimens or Samples	0 Borrows (0 Specimens)
TOTAL Transactions	57 transactions (55 Research, 2 Education), 1,059 specimens

INQUIRIES AND DATA REQUESTS

Category	Number
Number of Inquiries Answered	190 (including the Ann Arbor Observer & Michigan News)
Number of Data Requests	11 requests, 6 MI, 1 NE, 1 KS, 3 Mexico

VISITATION

Category	Number
RESEARCHER VISITS (Unique Visitors/Visitor Days)	
Curator/Professor/Postdoctoral Fellows	24 individuals / 66 days
Graduate Students	10 individuals / 20 days
Undergraduates	7 individuals / 26 days

UMMZ MAMMAL DIVISION

VISITATION – Continued

Category	Number
UM CLASS VISITS (Total Classes/Total Students)	
EEB	3 classes / 47 students
School of Art	10 classes / 187 students
PUBLIC PROGRAMS & VISITORS	
Number of Groups/Visitors	17 groups / 182 individuals (includes 1 open house and 4 non-UM class visits)
On-line Visitors Form	77 visits

CITATIONS (Works Published by Curators, Staff and Students, and from External Collection Use)

Category	Number
Total Citations	61,912
Citations Since 2014	18,150
Citations of Papers Published in Last 5 Years	926 (9 in 2018 Google Scholar search)

KEY CURATION ACTIVITIES

Category	Details
Progress from Grants	NSF. Digitization TCN: Collaborative Research: oVert: Open exploration of vertebrate diversity in 3D. (334 mammal scans completed in 2018)
	Huron Mountain Wildlife Foundation (PI). Assessing hybridization in flying squirrels (<i>Glaucomys</i>) of the Huron Mountains.
Grant Submissions	NSF. Digitization PEN: Functional Quantitative characters for Ecology and Evolution (FuncQEE).
	NSF. Cacao and conservation in Cote d'Ivoire.
Other	Collection catalog through the Specify database put onto the Integrated Publishing Toolkit (IPT) to connect to global aggregators
	UM Herbarium and UMMZ became Founding Members of the Specify Collections Consortium
	Completed office and lab move to the RMC
	Moved & installed mammal taxidermy mounts
	Planned and installed BSB cabinets
	Moved & organized fluid specimens from Ruthven basement
	Moved mammal teaching collection to BSB
	Organized & labeled skeletal collection (near completion)
	Started scanning & databasing correspondence
	Labeled skin collection cabinets

UMMZ MAMMAL DIVISION

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Mammal	12,249	324,816,946	324,816,946	324,816,946	from 22 Apr 2013
iDigBio Mammal	28,003	561,262	117,460	561,262	from Jan 2015
VertNet Mammal	2,175	230,107	975,086	975,086	from Apr 2014
TOTAL	42,427	325,608,315	325,909,492	326,353,294	

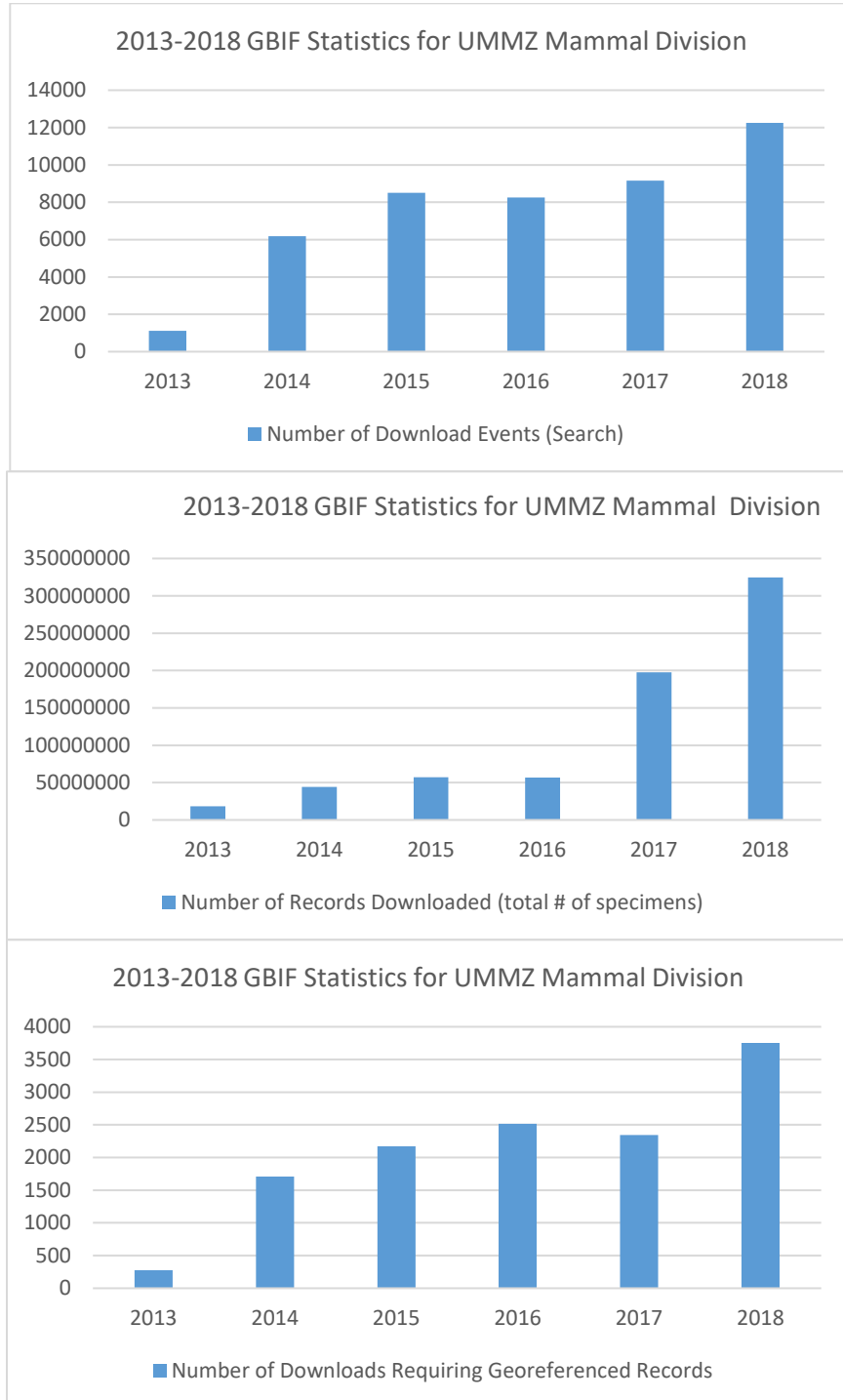
GBIF – Global Biodiversity Information Facility

Statistic Category	2018 year total	Average per month
Number of Download Events (Search)	12,249	1,020.75
Number of Records Downloaded (total # of specimens)	324,816,946	27,068,078.83
Number of Downloads Requiring Georeferenced Records	3,751	312.58
Number of Downloads Using a Polygon Locality Region	1,070	89.17
Number of Downloads Based on a Country/Specific Locality Search	2,218	184.83
Percent of Searches Requesting Georeferenced Specimens	30.62	30.62
Maximum Percent Requesting Georeferencing, Polygon or Locality *** (see below)	57.47	57.47

*** GBIF Maximum percent assumes that georeferencing, polygon and country search are independent - data is not available to separate this. Maximum percent represents the greatest percent possible for searches looking for locality information.

UMMZ MAMMAL DIVISION

GBIF – Global Biodiversity Information Facility



UMMZ MAMMAL DIVISION

iDigBio – Integrated Digitized Biocollections

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query	19,174,973,885	1,597,914,490.42
Download – instances a record from this recordset was downloaded	28,003	2,333.58
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	561,262	46,771.83
Records Viewed – how many specimen records were opened and viewed in full detail	117,460	9,788.33
Media Viewed – how many media records were opened and viewed in full detail	0	0.00

VertNet – Vertebrate Network

Statistic Category	2018 year total	Average per month
Number of searches that retrieved data from the resource	15,545	1,295.42
Number of records retrieved in searches / were pulled to screen	230,107	19,175.58
Number of different countries where searched have been originated	259	21.58
Number of download events retrieved data from the resource / pulled records from the resource 2018	2,175	181.25
Total number of records downloaded	975,086	81,257.17
Number of different countries that downloaded records	126	10.50
Percent that the resource appeared on all download events this month	162	13.48

UMMZ MAMMAL DIVISION

MORPHOSOURCE – Digital repository containing 3D media (raw micro-CT data and surface meshes) from UMMZ specimens

UMMZ Division	Request	Total Media Available	Total Downloads	Total Download Users
Mammal	31	1,176	6,054	2,589

UM DIGITAL LIBRARY

Collection	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views	Origin Date
UMMZ Mammal Division Collection Database with Specimen Images (mam1ic)	2,570	387	15.06	22,086	326	1.48	since 2015
UMMZ Mammal Division Field Notes (mam3ic)	1,660	314	18.92	1,692	401	23.70	since 2015
UMMZ Mammal Division Division Maps (mam2ic)	1,603	288	17.97	1,958	64	3.27	since 2015
TOTAL	5,833	989	16.96	25,736	791	3.07	

Year TOTAL	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views
2015	3,574	503	14.07	4,532	155	3.42
2016	6,550	669	10.21	126,253	342	0.27
2017	9,038	2,628	29.08	20,383	619	3.04
2018	5,833	989	16.96	25,736	791	3.07
TOTAL 2015-2018	24,995	4,789	19.16	176,904	1,907	1.08

UMMZ MOLLUSK DIVISION

- Division Details provided by Taehwan Lee

PERSONNEL

Title	Name(s)
Curator	Tom Duda and Diarmaid O'Foighil
Collection Manager / Research Scientist	Taehwan Lee
Graduate Student Curatorial Assistants	Trevor Hewitt and Andrew Wood
Graduate Research Assistants	Emily Nagy, Rochelle Campbell and Benjamin Woerner
Undergraduate Research Assistant (Student Temp)	Abrielle Cacciaglia, Ashley Shultz, Grace Scigaj, Mikayla Essenmacher, Kareen Seres, Katherine Klier, Madelieine Klemz, Mikayla Essenmacher, Nicholas Hansen, Jenee Spoor, Cameron Leitz, Madeleine Klemz, Julie Pastorino, Hailey Pantaleo, Alexander Davis, Kaitlin Koshurba, Rachel Niesen, Brij Banerji, Katherine Klier, Tatiana Cuevas and Cody Williams
Volunteers	Alex Choi (High School Volunteer)

COLLECTION GROWTH / DATA ENHANCEMENT

Category	Number
Specimens Prepared	Wet 78 lots, Dry 61 lots, Tissue 37 lots
Added to Collection	82 lots
Accessions	15 accessions (170+ specimens) – 1 accession with no specimens indicated
Digitized (Cataloged & Imaged)	20477 lots
Data Entries	20,444 created (timestamp created), 20,419 cataloged (collection object date), 22,517 modified (edited)

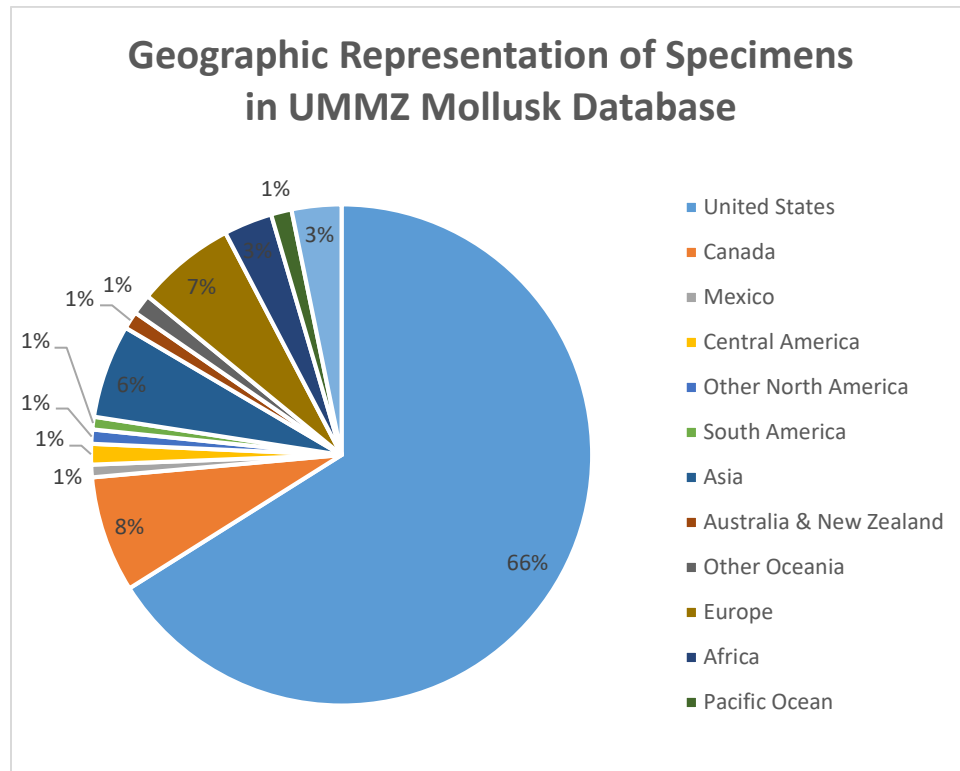
TAXONOMIC BREAKDOWN / TYPES / DATABASE STATUS

Category	Number
Taxa Represented	164 Families, 1,409 Genera, 11,286 species (from Specify Statistics Holdings tab)
Types Represented	1,338 type specimens (from Specify Statistics tab): 328 Cotype, 112 Holotype, 13 Lectotype, 2 Locotype, 1 Neotype, 25 Paralectotype, 389 Paratype, 77 Syntype, 233 Topotype
Percent of Georeferenced Specimens	43.88% of Specify entries
Highest Catalog Number	400180 (highest cataloged lot – 5,000,000 estimated specimens)
Percent Databased	43.22% of specimens in Specify (172967/400180)

UMMZ MOLLUSK DIVISION

GEOGRAPHIC DISTRIBUTION

Locality	Total Specimen Lots in Specify	Percent of 172,967 Lots
United States	114,273	66.07
Canada	12983	7.51
Mexico	1,403	0.81
Central America	2,296	1.33
Other North America	1,585	0.92
South America	1,408	0.81
Asia	10,431	6.03
Australia & New Zealand	1,968	1.14
Other Oceania	2,264	1.31
Europe	11,090	6.41
Africa	5,420	3.13
Pacific Ocean	2,293	1.33
Other / undefined	5,553	3.21
TOTAL	172,967	



UMMZ MOLLUSK DIVISION

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database

Regional Locality	Total Specimen Lots in Specify	Percent of 172,967 Lots
Michigan	31,672	18.31
Midwest USA	55,870	32.30
Great Lakes US (w/PA & NY)	53,656	31.02
Great Lakes US (no PA & NY)	50,453	29.17
Ontario Province, Canada	10,850	6.27
North America TOTAL	132,540	76.63

COLLECTION TRANSACTIONS

Category	Number
Loans	8 loans, 58 lots, 223 specimens
Returned Loans	5
TOTAL Transactions	8 transactions (4 Research, 3 Education, 1 Art), 58 lots (223 specimens)

INQUIRIES AND DATA REQUESTS

Category	Number
Information About Collection	22
Image Requests	7
Specimen ID Help	3
Questions About Publications	2
Georeference Help	1
General Mollusk Inquiries	13
TOTAL Inquiries	48

VISITATION

Category	Number
Visitors	15
Collection/Facility Tours	2
On-line Visitors Form	7 visits

UMMZ MOLLUSK DIVISION

CITATIONS (Works Published by Curators, Staff and Students, and from External Collection Use)

Category	Number
Citing Specimens	4
Curator/Student	3

KEY CURATION ACTIVITIES

Category	Details
Grants	Applied to 2 grants
Other	Collection catalog through the Specify database put onto the Integrated Publishing Toolkit (IPT) to connect to global aggregators
	UM Herbarium and UMMZ became Founding Members of the Specify Collections Consortium
	Dry collection move to RMC completed (May 2018)
	Digitizing historic dry collection continued (20477 lots)

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Mollusk	1,925	27,655,248	27,655,248	27,655,248	from 13 Jul 2018
iDigBio AquaticInvasives Mollusks	2,563	25,876	11	25,876	from Oct 2016
iDigBio Mollusk	2,637	5,515	11	5,515	from Jul 2018
GreatLakesIN Mollusk		69,985	69,985	69,985	23 Mar - 31 Aug 2018
IvertEBase Mollusk	161	51,975	51,975	51,975	23 Mar - 24 August 2018
TOTAL	7,286	27,808,599	27,777,230	27,808,599	

UMMZ MOLLUSK DIVISION

GBIF – Global Biodiversity Information Facility; Registered 21 December 2018

Statistic Category	2018 year total	Average per month
Number of Download Events (Search)	1,925	160.42
Number of Records Downloaded (total # of specimens)	27,655,248	2,304,604.00
Number of Downloads Requiring Georeferenced Records	521	43.42
Number of Downloads Using a Polygon Locality Region	312	26.00
Number of Downloads Based on a Country/Specific Locality Search	539	44.92
Percent of Searches Requesting Georeferenced Specimens	27.06	27.06
Maximum Percent Requesting Georeferencing, Polygon or Locality *** (see below)	71.27	71.27

*** GBIF Maximum percent assumes that georeferencing, polygon and country search are independent - data is not available to separate this. Maximum percent represents the greatest percent possible for searches looking for locality information.

iDigBio – Integrated Digitized Biocollections; Aquatic Invasives Mollusk Division

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query	3,399,210,302	283,267,525.17
Download – instances a record from this recordset was downloaded	2,563	213.58
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	25,876	2,156.33
Records Viewed – how many specimen records were opened and viewed in full detail	11	0.92
Media Viewed – how many media records were opened and viewed in full detail	0	0.00

UMMZ MOLLUSK DIVISION

iDigBio – Integrated Digitized Biocollections; Mollusk Division – Registered July 2018

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query	8,343,410,799	1,390,568,466.50
Download – instances a record from this recordset was downloaded	2,637	439.50
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	5,515	919.17
Records Viewed – how many specimen records were opened and viewed in full detail	11	1.83
Media Viewed – how many media records were opened and viewed in full detail	0	0.00

UMMZ REPTILE AND AMPHIBIAN DIVISION

- Division Details provided by Gregory E. Schneider

PERSONNEL

Title	Name(s)
Curators	Daniel Rabosky and Alison Davis Rabosky
Collection Manager	Gregory E. Schneider
Emeritus Curator	Ronald A. Nussbaum
Research Scientist	Fred Kraus
Postdoctoral Fellows	Rudi von May and Talia Moore
Graduate Student Curatorial Assistants	Michael Grundler and Joanna Larson
Graduate Students	Iris Holmes, Peter Cerda, John David Curlis, Briana Sealey and Imani Russell
Undergraduate Assistants	Daniel Nondorf, Courtney Whitcher, Molly S., Paul Hampel, Tim Renney and Ashley Thompson
oVert Research Assistants	Abbey Hines, Greg Pandelis and Erin Westeen

COLLECTION GROWTH / DATA ENHANCEMENT

Category	Number
Cataloged Units Added	2,321
Skeletal Cataloged Units	21 (total: 14,159 through UMMZ 248830)
New Taxa	57 species / 7 Paratypes
Accessions	21
Tissues Cataloged	842 (total 16,682)
Digital Images Cataloged	6 (total: 3,877)
Microslides Cataloged	0 (total: 455 Boxes representing 31,365 slides)
X-rays catalogued	0 (through X-2939)
Color slides catalogued	0 (total: 7,303)
Data Entries	2,735 timestamp created, 0 cataloged, 2,870 modified

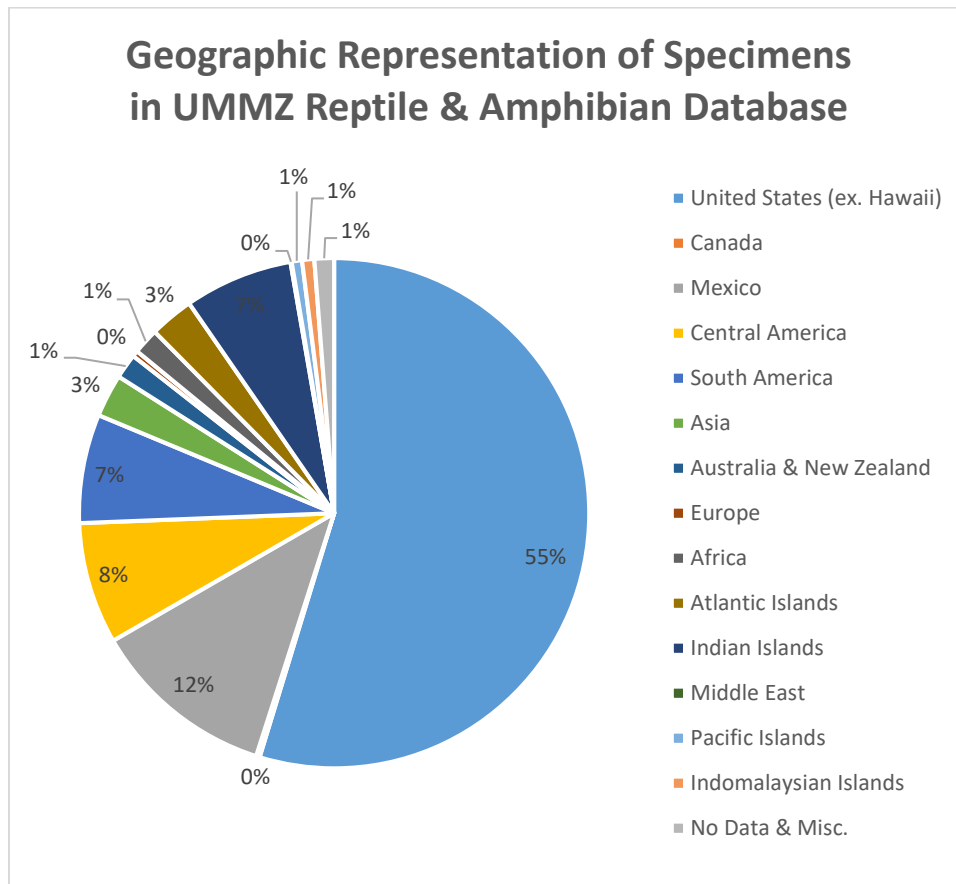
TAXONOMIC BREAKDOWN / TYPES / DATABASE STATUS

Category	Number
Taxa Represented	93 Families, 1,082 Genera, 5,500 species
Types Represented	477 (representing 429 taxa)
Paratype Specimens	5,639 (representing 816 taxa)
Percent of Georeferenced Specimens	91.76% of Cataloged Units in Specify (187047/203849)
Highest Catalog Number	248830
Percent Databased	100% of Cataloged Units in Specify (203849/203849)

UMMZ REPTILE AND AMPHIBIAN DIVISION

GEOGRAPHIC DISTRIBUTION – Calculated by Gregory E. Schneider

Global Locality	2017 Total Specimens through UMMZ 246059	Specimens Added	2018 Total Specimens through UMMZ 248830
United States (ex. Hawaii)	239,428	115	239,543
Canada	989	0	989
Mexico	51,330	6	51,336
Central America	33,536	206	33,742
South America	29,329	878	30,207
Asia	11,892	0	11,892
Australia & New Zealand	6,895	0	6,895
Europe	1,661	0	1,661
Africa	7,182	2	7,184
Atlantic Islands	12,203	0	12,203
Indian Islands	30,121	4	30,125
Middle East	317	0	317
Pacific Islands	2,708	165	2,873
Indomalaysian Islands	2,404	966	3,370
No Data & Misc.	5,421	10	5,431
TOTAL	435,416	2,352	437,768



UMMZ REPTILE AND AMPHIBIAN DIVISION

REGIONAL DISTRIBUTION – Regional and North American Representation of Specimens in Database;
Calculated by Benjamin M. Hess

Regional Locality	Total Cataloged Units	Percent of 203,849 Units	Total Number of Specimens	Percent of 437,768 Specimens
Michigan	23,830	11.69%	39,224	8.96%
Midwest USA	36,851	18.08%	67,346	15.38%
Great Lakes US (w/PA & NY)	33,693	16.53%	60,689	13.86%
Great Lakes US (no PA & NY)	32,557	15.97%	57,822	13.21%
Ontario Province, Canada	330	0.16%	753	0.17%
North America TOTAL	119,495	58.62%	297,642	67.99%

COLLECTION TRANSACTIONS

Category	Number
Gifts Sent	4 tissue gifts (94+ lots, 118 specimens)
Loans	28 loans (270+ lots, 583 specimens)
Returned Loans	5 returns (2+ lots, 91 specimens)
Transfers Sent	2 transfers (1+ lot, 7 specimens)
Education Loans	4 loans (166 specimens)
TOTAL Transactions	43 transactions (39 Research, 4 Education), 367+ lots, 965 specimens

INQUIRIES AND DATA REQUESTS

Category	Number
Number of Inquiries Answered	15+
Number of Data Requests	10+
	Numerous requests in 2018
	Looking for a way to track in 2019

VISITATION

Category	Number
Visiting Scientists	16 representing 9 institutions
On-line Visitors Form	3 visits

UMMZ REPTILE AND AMPHIBIAN DIVISION

CITATIONS (Works Published by Curators, Staff and Students, and from External Collection Use)

Category	Number
	Google Scholar publication list being created in 2019

KEY CURATION ACTIVITIES

Category	Details
Other	Collection catalog through the Specify database put onto the Integrated Publishing Toolkit (IPT) to connect to global aggregators
	UM Herbarium and UMMZ became Founding Members of the Specify Collections Consortium
	UMMZ Predator/Prey Digital Image Collection (UM Digital Library)

GLOBAL AGGREGATORS / DATA PORTALS

Portal & Division	Download	Seen / Viewed	Records Viewed (iDigBio Herbarium & VertNet)	Higher viewed number (Seen / Viewed versus Records viewed)	Origin or Time Frame
GBIF Reptile/Amphibian	7,396	404,854,235	404,854,235	404,854,235	from 11 Dec 2013
iDigBio Reptile/Amphibian	82,093	246,844	166,632	246,844	from Jan 2015
VertNet Reptile/Amphibian	2,352	145,102	413,351	413,351	from Apr 2014
TOTAL	91,841	405,246,181	405,434,218	405,514,430	

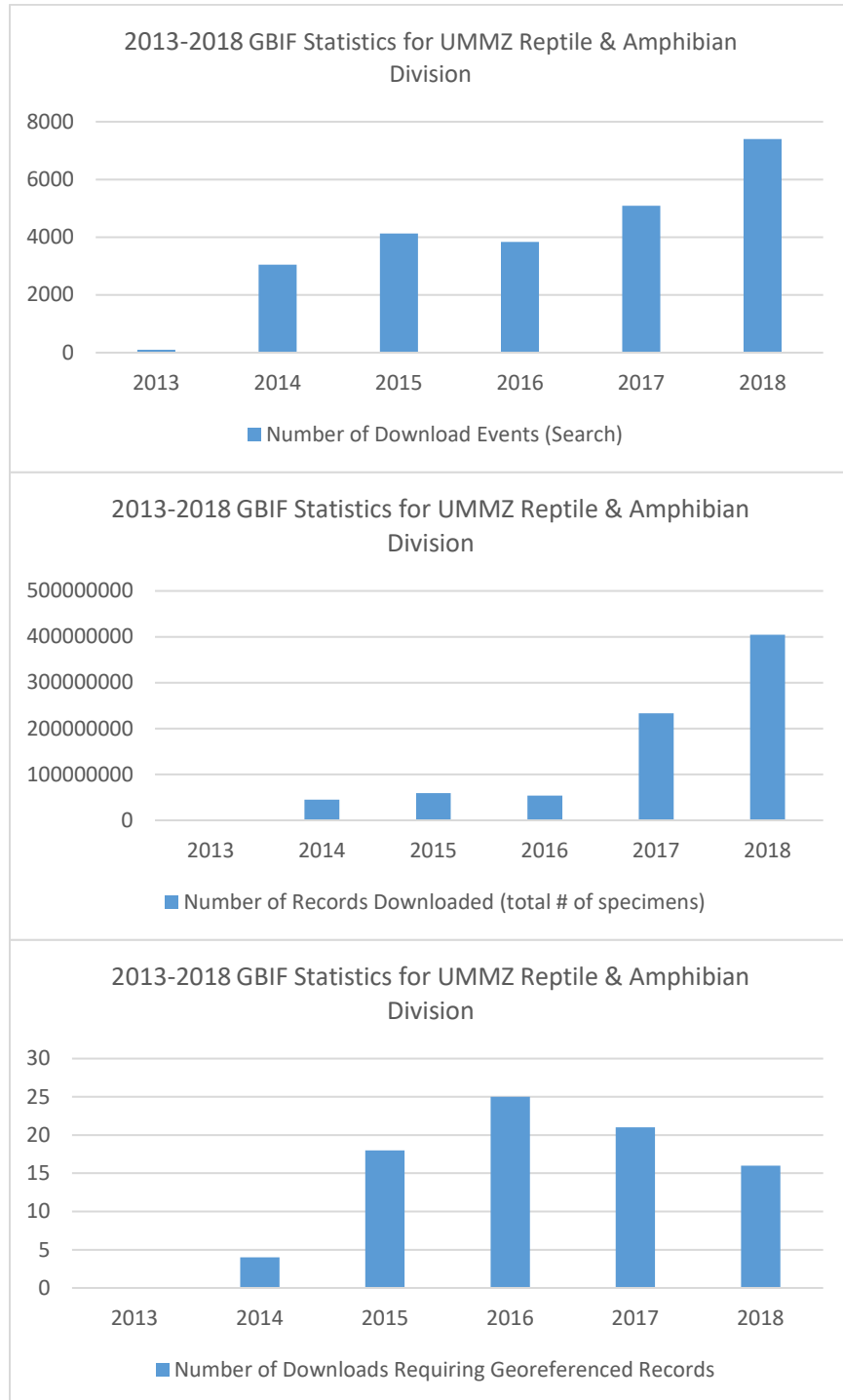
GBIF – Global Biodiversity Information Facility

Statistic Category	2018 year total	Average per month
Number of Download Events (Search)	7,396	616.33
Number of Records Downloaded (total # of specimens)	404,854,235	33,737,852.92
Number of Downloads Requiring Georeferenced Records	16	1.33
Number of Downloads Using a Polygon Locality Region	1	0.08
Number of Downloads Based on a Country/Specific Locality Search	1,050	87.50
Percent of Searches Requesting Georeferenced Specimens	0	0.22
Maximum Percent Requesting Georeferencing, Polygon or Locality *** (see next page)	14	14.43

UMMZ REPTILE AND AMPHIBIAN DIVISION

GBIF – Global Biodiversity Information Facility

*** GBIF Maximum percent assumes that georeferencing, polygon and country search are independent - data is not available to separate this. Maximum percent represents the greatest percent possible for searches looking for locality information.



UMMZ REPTILE AND AMPHIBIAN DIVISION

iDigBio – Integrated Digitized Biocollections

Statistic Category	2018 year total	Average per month
Search – instances a record from this recordset matched a search query	29,308,681,380	2,442,390,115.00
Download – instances a record from this recordset was downloaded	82,093	6,841.08
Seen – instances a record from this recordset appeared (visually) in the search results in a browser window	246,844	20,570.33
Records Viewed – how many specimen records were opened and viewed in full detail	166,632	13,886.00
Media Viewed – how many media records were opened and viewed in full detail	0	0.00

VertNet – Vertebrate Network

Statistic Category	2018 year total	Average per month
Number of searches that retrieved data from the resource	12,460	1,038.33
Number of records retrieved in searches / were pulled to screen	145,102	12,091.83
Number of different countries where searched have been originated	305	25.42
Number of download events retrieved data from the resource / pulled records from the resource 2018	2,352	196.00
Total number of records downloaded	413,351	34,445.92
Number of different countries that downloaded records	159	13.25
Percent that the resource appeared on all download events this month	193	16.09

UMMZ REPTILE AND AMPHIBIAN DIVISION

MORPHOSOURCE – Digital repository containing 3D media (raw micro-CT data and surface meshes) from UMMZ specimens

UMMZ Division	Request	Total Media Available	Total Downloads	Total Download Users
Reptile/Amphibians	193	837	540	337

UM DIGITAL LIBRARY

Collection	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views	Origin Date
UMMZ Amphibian and Reptile Audio Files (amph2ic)	1,624	296	18.23	2,126	559	26.29	since 2015
UMMZ Amphibian and Reptile Catalogue (amph3ic)	4,550	583	12.81	4,130	199	4.82	since 2015
UMMZ Amphibian and Reptile Type Specimens (amph1ic)	2,109	325	15.41	9,793	860	8.78	since 2015
UMMZ Herpetology Field Notebooks (rept2ic)	1,106	181	16.37	23,911	3,429	14.34	available since 2018
UMMZ Herpetology Predator and Prey Collection (rept3ic)	882	93	10.54	33,099	6,438	19.45	available since 2018
UMMZ Herpetology Radiographs (rept1ic)	1,736	250	14.40	27,773	1,974	7.11	available since 2016
TOTAL	12,007	1,728	14.39	100,832	13,459	13.35	

Year TOTAL	Search Total Across All Institutions	Search Total within U-M	Percent of Searches within U-M	View Total Across All Institutions	View Total within U-M	Percent of U-M Views
2015	4,474	558	12.47	6,705	107	1.60
2016	44,619	836	1.87	40,211	877	2.18
2017	15,518	3,067	19.76	75,327	3,437	4.56
2018	12,007	1,728	14.39	100,832	13,459	13.35
TOTAL 2015-2018	76,618	6,189	8.08	223,075	17,880	8.02

GOOGLE ANALYTICS – Definitions

In order for to determine which traffic belongs to which user, Google Analytics sends a unique identifier with each user with each hit. This is how New Users are identified.

Unique pageviews are slightly different from the normal pageviews. Google Analytics refers to them as “pageviews that are generated by the same user during the same session.” When a user visits a web page once or even multiple times during a specific session, it is counted as a unique pageview.

Entrances are incremented on the first pageview or screenview hit of a session. In contrast, Sessions are incremented on the first hit of a session, regardless of hit type. Thus, there may be a discrepancy between Entrances and Pageviews or Screenviews for properties where the first hit of a session can be an event hit.

GOOGLE ANALYTICS – EEB Museums Summary; Data collection about website visitors and their interactions for UM Herbarium and UM Museum of Zoology

- UM Herbarium GOOGLE ANALYTICS – prepared by Michael Ehnis
- UM Museum of Zoology GOOGLE ANALYTICS – prepared by Linda Garcia

Audience Overview

Division	Pageviews	Sessions	Users	New Users
Herbarium	22,738	9,870	7,142	6,146
UMMZ	77,735	29,571	24,114	22,708
TOTAL	100,473	39,441	31,256	28,854

Top 10 Search Locations

Herbarium	
Country	Users
United States	5,405
Canada	397
India	123
Mexico	122
South Korea	119
Brazil	117
China	71
United Kingdom	64
Germany	57
Spain	34
Top 10 TOTAL	6,509
% of all users	91.14

UMMZ	
Country	Users
USA	14,093
India	1,703
Nigeria	909
Philippines	649
Canada	586
United Kingdom	460
Australia	402
Brazil	339
Pakistan	303
Kenya	287
Top 10 TOTAL	19,731
% of all users	81.82

GOOGLE ANALYTICS – EEB Museums Summary

UM Herbarium View Statistics

UM Herbarium (search term)	Pageviews	Unique Pageviews	Avg. Time on Page (minutes)	Entrances
Herbarium only	8,079	6,215	53.35	6,051
People	3,586	2,927	74.32	1,459
Databases	2,597	1,696	15.85	519
Collections	1,636	1,213	15.78	219
News-Events	1,416	1,179	62.36	720
Publications	1,330	1,059	42.99	526
General Search	1,218	586	26.88	5
Research	597	451	34.15	57
Library	438	360	59.85	82
Other	1,841	1552	19.17	218
TOTAL	22,738	17,238	404.70	9,856
AVERAGE	1,628.78	1,224.78	40.47	422.78

UMMZ Division View Statistics

UM Division (search term)	Pageviews	Unique Pageviews	Avg. Time on Page (minutes)	Entrances
Birds	6,318	4,533	44.42	1,120
Fish	4,713	3,307	51.85	1,073
Insects	5,133	3,461	43.84	899
Mammals	12,066	7,296	33.10	2,959
Mollusks	3,377	2,369	72.33	869
Reptiles & Amphibians	16,020	12,787	124.74	9,668
TOTAL	47,627	33,753	370.28	16,588
AVERAGE	8,261.80	5,844.00	61.71	3,093.60

**** 30,108 pageviews of the total UMMZ pageviews are not captured within the Division search terms.

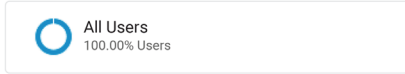
2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UM Herbarium Audience Overview

Analytics Department Sites 101-150
Herbarium

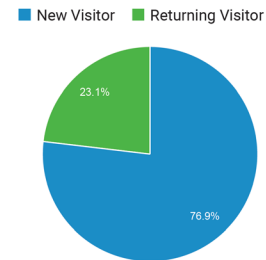
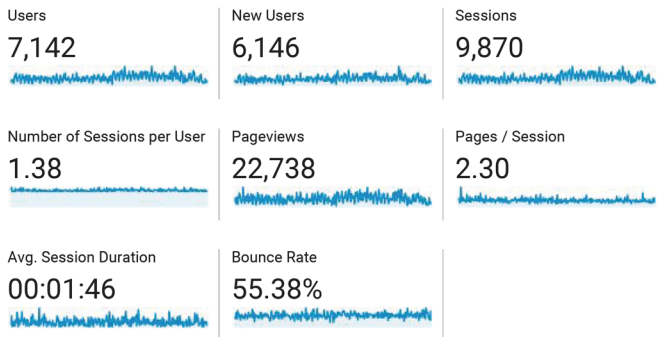
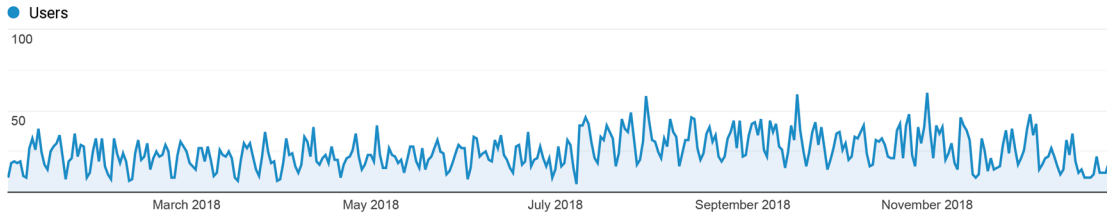
[Go to report](#)

Audience Overview



Jan 1, 2018 - Dec 31, 2018

Overview



Country	Users	% Users
1. United States	5,405	75.97%
2. Canada	397	5.58%
3. India	123	1.73%
4. Mexico	122	1.71%
5. South Korea	119	1.67%
6. Brazil	117	1.64%
7. China	71	1.00%
8. United Kingdom	64	0.90%
9. Germany	57	0.80%
10. Spain	34	0.48%

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GOOGLE ANALYTICS – UM Herbarium All Page Views

Analytics Department Sites 101-150
Herbarium

[Go to report](#)

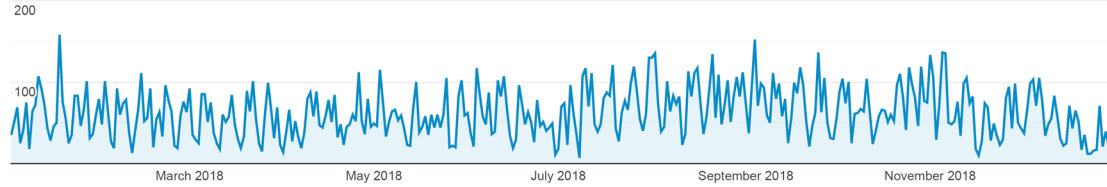
Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer

Pageviews



Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	22,738 % of Total: 100.00% (22,738)	17,238 % of Total: 100.00% (17,238)	00:01:21 Avg for View: 00:01:21 (0.00%)	9,856 % of Total: 100.00% (9,856)	55.38% Avg for View: 55.38% (0.00%)	43.35% Avg for View: 43.35% (0.00%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/herbarium	8,077 (35.52%)	6,214 (36.05%)	00:01:36	6,051 (61.39%)	48.37%	51.37%	\$0.00 (0.00%)
2. lsa.umich.edu/herbarium/databases.html	2,313 (10.17%)	1,519 (8.81%)	00:02:06	472 (4.79%)	21.40%	48.55%	\$0.00 (0.00%)
3. lsa.umich.edu/herbarium/collections.html	924 (4.06%)	710 (4.12%)	00:00:49	120 (1.22%)	49.59%	20.02%	\$0.00 (0.00%)
4. lsa.umich.edu/herbarium/people.html	861 (3.79%)	653 (3.79%)	00:01:10	112 (1.14%)	62.50%	36.24%	\$0.00 (0.00%)
5. lsa.umich.edu/herbarium/people/staff/reznicek.html	487 (2.14%)	414 (2.40%)	00:02:06	342 (3.47%)	80.99%	68.79%	\$0.00 (0.00%)
6. lsa.umich.edu/herbarium/library.html	421 (1.85%)	344 (2.00%)	00:01:01	74 (0.75%)	44.00%	32.30%	\$0.00 (0.00%)
7. lsa.umich.edu/herbarium/research.html	383 (1.68%)	276 (1.60%)	00:00:33	21 (0.21%)	61.90%	13.84%	\$0.00 (0.00%)
8. lsa.umich.edu/herbarium/publications.html	379 (1.67%)	299 (1.73%)	00:00:57	58 (0.59%)	67.24%	28.23%	\$0.00 (0.00%)
9. lsa.umich.edu/herbarium/about.html	346 (1.52%)	277 (1.61%)	00:01:20	18 (0.18%)	88.89%	26.88%	\$0.00 (0.00%)
10. lsa.umich.edu/herbarium/online-exhibits.html	312 (1.37%)	259 (1.50%)	00:00:18	7 (0.07%)	28.57%	11.22%	\$0.00 (0.00%)
11. lsa.umich.edu/herbarium/people/staff/peberry.html	288 (1.27%)	256 (1.49%)	00:03:18	204 (2.07%)	74.02%	69.10%	\$0.00 (0.00%)
12. lsa.umich.edu/herbarium/contact.html	270 (1.19%)	227 (1.32%)	00:02:18	33 (0.33%)	78.79%	48.52%	\$0.00 (0.00%)
13. lsa.umich.edu/herbarium/people/staff.html	264 (1.16%)	181 (1.05%)	00:00:52	8 (0.08%)	50.00%	29.92%	\$0.00 (0.00%)
14. lsa.umich.edu/herbarium/students.html	223 (0.98%)	194 (1.13%)	00:01:25	11 (0.11%)	54.55%	26.91%	\$0.00 (0.00%)
15. lsa.umich.edu/herbarium/maps--directions.html	214 (0.94%)	192 (1.11%)	00:01:34	62 (0.63%)	80.95%	59.81%	\$0.00 (0.00%)
16. lsa.umich.edu/herbarium/collections/loan-requests.html	174 (0.77%)	132 (0.77%)	00:01:46	47 (0.48%)	48.94%	31.03%	\$0.00 (0.00%)
17. lsa.umich.edu/herbarium/publications/all/mosses-of-the-great-lakes-forest.html	173 (0.76%)	147 (0.85%)	00:01:59	141 (1.43%)	80.85%	78.03%	\$0.00 (0.00%)
18. lsa.umich.edu/herbarium/collections/collection-policies.html	167 (0.73%)	134 (0.78%)	00:00:33	24 (0.24%)	80.00%	22.75%	\$0.00 (0.00%)
19. lsa.umich.edu/herbarium/collections/visitors.html	166 (0.73%)	141 (0.82%)	00:00:30	11 (0.11%)	54.55%	19.28%	\$0.00 (0.00%)
20. lsa.umich.edu/herbarium/people/staff/rabeler.html	163	147	00:02:14	81	80.25%	57.06%	\$0.00

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

GOOGLE ANALYTICS – UM Herbarium All Page Views

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. lsa.umich.edu/herbarium/people/staff/rubner.html	148 (0.65%)	139 (0.81%)	00:02:17 (0.82%)	111 (1.13%)	85.59%	71.62%	\$0.00 (0.00%)
21. lsa.umich.edu/herbarium/people/staff/rburnham.html	134 (0.59%)	124 (0.72%)	00:02:45	84 (0.85%)	66.67%	59.70%	\$0.00 (0.00%)
22. lsa.umich.edu/herbarium/people/staff/chra.html	133 (0.58%)	120 (0.70%)	00:03:15	117 (1.19%)	87.18%	87.22%	\$0.00 (0.00%)
23. lsa.umich.edu/herbarium/news-events/all-news/search-news/three-new-chanterelle-mushrooms-discovered-in-the-midwest.html	122 (0.54%)	114 (0.66%)	00:01:44	111 (1.13%)	77.48%	75.41%	\$0.00 (0.00%)
24. lsa.umich.edu/herbarium/news-events/all-events.detail.html/34412-4923572.html	122 (0.54%)	91 (0.53%)	00:01:40	18 (0.18%)	38.89%	22.13%	\$0.00 (0.00%)
25. lsa.umich.edu/herbarium/publications/special-offer-michigan-flora.html	120 (0.53%)	97 (0.56%)	00:02:28	73 (0.74%)	50.68%	40.00%	\$0.00 (0.00%)
26. lsa.umich.edu/herbarium/people/staff.directory.html	119 (0.52%)	96 (0.56%)	00:01:54	10 (0.10%)	80.00%	23.53%	\$0.00 (0.00%)
27. lsa.umich.edu/herbarium/news-events/all-news.html	117 (0.51%)	95 (0.55%)	00:00:54	5 (0.05%)	60.00%	22.22%	\$0.00 (0.00%)
28. lsa.umich.edu/herbarium/people/students.html	114 (0.50%)	103 (0.60%)	00:02:53	54 (0.55%)	72.73%	57.02%	\$0.00 (0.00%)
29. lsa.umich.edu/herbarium/people/staff/cwdick.html	100 (0.44%)	87 (0.50%)	00:01:06	6 (0.06%)	16.67%	21.00%	\$0.00 (0.00%)
30. lsa.umich.edu/herbarium/research/current-projects.html	98 (0.43%)	86 (0.50%)	00:02:18	66 (0.67%)	69.70%	63.27%	\$0.00 (0.00%)
31. lsa.umich.edu/herbarium/people/staff/mwynne.html	88 (0.39%)	72 (0.42%)	00:01:09	67 (0.68%)	86.57%	72.73%	\$0.00 (0.00%)
32. lsa.umich.edu/herbarium/publications/all/liverworts-and-hornworts-of-southern-michigan.html	85 (0.37%)	67 (0.39%)	00:01:08	40 (0.41%)	72.50%	57.65%	\$0.00 (0.00%)
33. lsa.umich.edu/herbarium/databases/xylarium.html	84 (0.37%)	59 (0.34%)	00:01:04	6 (0.06%)	57.14%	35.71%	\$0.00 (0.00%)
34. lsa.umich.edu/herbarium/publications/ordering.html	81 (0.36%)	74 (0.43%)	00:01:10	14 (0.14%)	85.71%	48.15%	\$0.00 (0.00%)
35. lsa.umich.edu/herbarium/about/facilities.html	76 (0.33%)	66 (0.38%)	00:00:58	9 (0.09%)	77.78%	26.32%	\$0.00 (0.00%)
36. lsa.umich.edu/herbarium/news-events/all-news/vascular-plants.html	76 (0.33%)	58 (0.34%)	00:00:33	6 (0.06%)	16.67%	22.37%	\$0.00 (0.00%)
37. lsa.umich.edu/herbarium/people/staff/rogersp.html	69 (0.30%)	61 (0.35%)	00:01:18	34 (0.34%)	88.24%	59.42%	\$0.00 (0.00%)
38. lsa.umich.edu/herbarium/news-events/all-events.html	68 (0.30%)	41 (0.24%)	00:00:55	1 (0.01%)	100.00%	26.47%	\$0.00 (0.00%)
39. lsa.umich.edu/herbarium/publications/all/structural-diversity-of-bryophytes.html	65 (0.29%)	54 (0.31%)	00:00:46	49 (0.50%)	87.76%	73.85%	\$0.00 (0.00%)
40. lsa.umich.edu/herbarium/links.html	61 (0.27%)	55 (0.32%)	00:01:25	11 (0.11%)	90.91%	36.07%	\$0.00 (0.00%)
41. lsa.umich.edu/herbarium/publications/contributions-from-the-herbarium.html	59 (0.26%)	43 (0.25%)	00:01:46	4 (0.04%)	0.00%	20.34%	\$0.00 (0.00%)
42. lsa.umich.edu/herbarium/news-events/all-news/fungus.html	57 (0.25%)	41 (0.24%)	00:00:41	21 (0.21%)	57.14%	36.84%	\$0.00 (0.00%)
43. lsa.umich.edu/herbarium/publications/all/the-mushroom-hunter-s-field-guide.html	54 (0.24%)	44 (0.26%)	00:01:13	34 (0.34%)	73.53%	59.26%	\$0.00 (0.00%)
44. author.lsa.umich.edu/content/michigan-lsa/herbarium/en.html	53 (0.23%)	39 (0.23%)	00:04:10	29 (0.29%)	20.69%	16.98%	\$0.00 (0.00%)
45. lsa.umich.edu/herbarium/people/staff/ylqiu.html	52 (0.23%)	46 (0.27%)	00:00:43	29 (0.29%)	82.76%	55.77%	\$0.00 (0.00%)
46. lsa.umich.edu/herbarium/news-events/all-news/algae.html	49 (0.22%)	37 (0.21%)	00:00:25	30 (0.30%)	60.00%	44.90%	\$0.00 (0.00%)
47. lsa.umich.edu/herbarium/people/staff/reznicek	45 (0.20%)	41 (0.24%)	00:01:08	41 (0.42%)	92.68%	91.11%	\$0.00 (0.00%)
48. lsa.umich.edu/herbarium/people/staff/florence-s-wagner.html	44 (0.19%)	39 (0.23%)	00:02:17	23 (0.23%)	73.91%	56.82%	\$0.00 (0.00%)
49. lsa.umich.edu/herbarium/about/history.html	43 (0.19%)	36 (0.21%)	00:02:51	0 (0.00%)	0.00%	23.26%	\$0.00 (0.00%)

Rows 1 - 50 of 1225

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UM Herbarium Collections



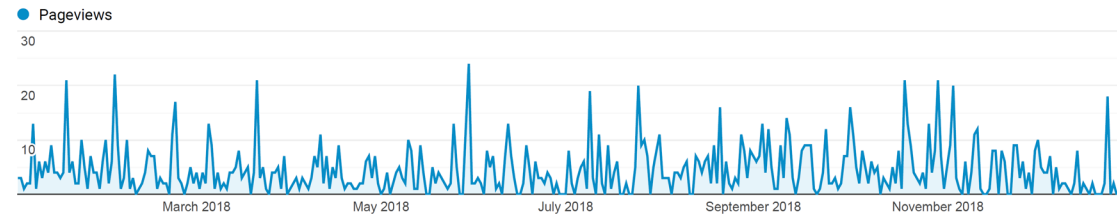
[Go to report](#)

Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **collections**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	1,636 % of Total: 7.20% (22,738)	1,213 % of Total: 7.04% (17,238)	00:00:46 Avg for View: 00:01:21 (-42.77%)	219 % of Total: 2.22% (9,856)	54.30% Avg for View: 55.38% (-1.95%)	21.39% Avg for View: 43.35% (-50.64%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/herbarium/collections.html	924 (56.48%)	710 (58.53%)	00:00:49	120 (54.79%)	49.59%	20.02%	\$0.00 (0.00%)
2. lsa.umich.edu/herbarium/collections/loan-requests.html	174 (10.64%)	132 (10.88%)	00:01:46	47 (21.46%)	48.94%	31.03%	\$0.00 (0.00%)
3. lsa.umich.edu/herbarium/collections/collection-policies.html	167 (10.21%)	134 (11.05%)	00:00:33	24 (10.96%)	80.00%	22.75%	\$0.00 (0.00%)
4. lsa.umich.edu/herbarium/collections/visitors.html	166 (10.15%)	141 (11.62%)	00:00:30	11 (5.02%)	54.55%	19.28%	\$0.00 (0.00%)
5. lsa.umich.edu/herbarium/collections.html?q=Moss	18 (1.10%)	1 (0.08%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
6. lsa.umich.edu/herbarium/collections.html?q=Spermacoce	15 (0.92%)	1 (0.08%)	00:00:05	0 (0.00%)	0.00%	6.67%	\$0.00 (0.00%)
7. lsa.umich.edu/herbarium/collections.html?q=Indian Arrowroot	14 (0.86%)	1 (0.08%)	00:00:01	0 (0.00%)	0.00%	7.14%	\$0.00 (0.00%)
8. lsa.umich.edu/herbarium/collections.html?q=zoology	12 (0.73%)	1 (0.08%)	00:00:01	0 (0.00%)	0.00%	8.33%	\$0.00 (0.00%)
9. lsa.umich.edu/herbarium/collections.html?q=keys	10 (0.61%)	1 (0.08%)	00:00:05	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
10. lsa.umich.edu/herbarium/news-events/all-news/search-news/nsf-grants-to-digitiz-e-biological-collections.html	10 (0.61%)	7 (0.58%)	00:03:04	4 (1.83%)	100.00%	50.00%	\$0.00 (0.00%)
11. lsa.umich.edu/herbarium/collections.html?q=narra	9 (0.55%)	8 (0.66%)	00:00:00	3 (1.37%)	0.00%	66.67%	\$0.00 (0.00%)
12. lsa.umich.edu/herbarium/collections.html?q=iris	6 (0.37%)	1 (0.08%)	00:00:01	0 (0.00%)	0.00%	16.67%	\$0.00 (0.00%)
13. lsa.umich.edu/herbarium/news-events/all-news/search-news/nsf-grants-to-digitiz-e-biological-collections	6 (0.37%)	6 (0.49%)	00:00:38	6 (2.74%)	83.33%	83.33%	\$0.00 (0.00%)
14. lsa.umich.edu/herbarium/collections.html?q=gelidiopsis	5 (0.31%)	4 (0.33%)	00:00:19	1 (0.46%)	0.00%	20.00%	\$0.00 (0.00%)
15. lsa.umich.edu/herbarium/collections.html?q=cactaceae	4 (0.24%)	1 (0.08%)	00:00:04	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
16. lsa.umich.edu/herbarium/collections.html?q=Silva Ribeiro 3653	4 (0.24%)	1 (0.08%)	00:00:23	0 (0.00%)	0.00%	25.00%	\$0.00 (0.00%)
17. lsa.umich.edu/herbarium/collections.html?q=tulostoma sp	4 (0.24%)	1 (0.08%)	00:00:03	0 (0.00%)	0.00%	25.00%	\$0.00 (0.00%)
18. lsa.umich.edu/eeb/news-events/all-news/archived-news/2013/04/herbarium-completes-imaging-and-digitization-of-type-collections.html	3 (0.18%)	3 (0.25%)	00:00:00	2 (0.91%)	100.00%	100.00%	\$0.00 (0.00%)
19. lsa.umich.edu/herbarium/collections.html?q=Elaeocarpus prunifolius Wall. ex Müll. f. Berol. f. family ELAEOCARPACEAE	3 (0.18%)	1 (0.08%)	00:00:05	0 (0.00%)	0.00%	33.33%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
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GOOGLE ANALYTICS – UM Herbarium Collections

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. lsa.umich.edu/herbarium/collections.html?q=Ericaceae	3 (0.18%)	1 (0.08%)	00:00:04	0 (0.00%)	0.00%	33.33%	\$0.00 (0.00%)
21. lsa.umich.edu/herbarium/collections.html?q=New Guinea, Clemens 41394	3 (0.18%)	1 (0.08%)	00:00:07	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
22. lsa.umich.edu/herbarium/collections.html?q=algae	2 (0.12%)	1 (0.08%)	00:00:06	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
23. lsa.umich.edu/herbarium/collections.html?q=calypso	2 (0.12%)	1 (0.08%)	00:00:09	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
24. lsa.umich.edu/herbarium/collections.html?q=carex	2 (0.12%)	1 (0.08%)	00:00:04	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
25. lsa.umich.edu/herbarium/collections.html?q=Centratherum punctatum	2 (0.12%)	1 (0.08%)	00:00:00	0 (0.00%)	0.00%	50.00%	\$0.00 (0.00%)

Rows 1 - 25 of 76

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GOOGLE ANALYTICS – UM Herbarium Databases

Analytics Department Sites 101-150
Herbarium

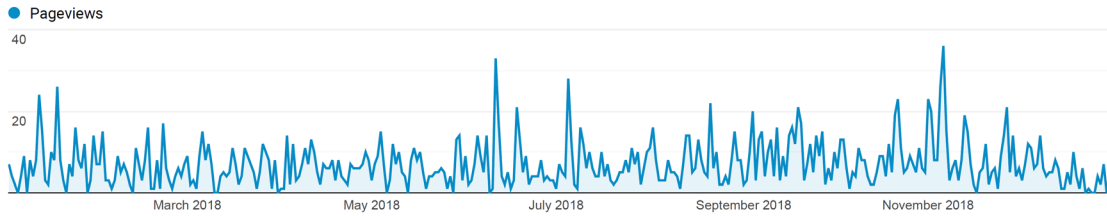
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Pages

All Users
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Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **databases**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	2,597 % of Total: 11.42% (22,738)	1,696 % of Total: 9.84% (17,238)	00:01:50 Avg for View: 00:01:21 (36.23%)	519 % of Total: 5.27% (9,856)	25.24% Avg for View: 55.38% (-54.42%)	46.21% Avg for View: 43.35% (6.60%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/herbarium/databases.html	2,313 (89.06%)	1,519 (89.56%)	00:02:06	472 (90.94%)	21.40%	48.55%	\$0.00 (0.00%)
2. lsa.umich.edu/herbarium/databases/xylarium.html	85 (3.27%)	67 (3.95%)	00:01:08	40 (7.71%)	72.50%	57.65%	\$0.00 (0.00%)
3. lsa.umich.edu/herbarium/databases.html?q=Muraya+Paniculata	14 (0.54%)	1 (0.06%)	00:00:03	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
4. lsa.umich.edu/herbarium/databases.html?q=liatris+aspera	10 (0.39%)	1 (0.06%)	00:00:08	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
5. lsa.umich.edu/herbarium/databases.html?q=dog+rose	8 (0.31%)	1 (0.06%)	00:00:04	0 (0.00%)	0.00%	12.50%	\$0.00 (0.00%)
6. lsa.umich.edu/herbarium/databases.html?q=horn+beam	8 (0.31%)	1 (0.06%)	00:00:01	0 (0.00%)	0.00%	12.50%	\$0.00 (0.00%)
7. lsa.umich.edu/herbarium/databases	6 (0.23%)	3 (0.18%)	00:01:45	3 (0.58%)	0.00%	50.00%	\$0.00 (0.00%)
8. lsa.umich.edu/herbarium/databases.html?q=botrychium+simplex	6 (0.23%)	2 (0.12%)	00:00:10	0 (0.00%)	0.00%	33.33%	\$0.00 (0.00%)
9. lsa.umich.edu/herbarium/databases.html?q=Catalpa+speciosa	4 (0.15%)	1 (0.06%)	00:01:10	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
10. lsa.umich.edu/herbarium/databases.html?q=Northern+Catalpa	4 (0.15%)	1 (0.06%)	00:00:13	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
11. lsa.umich.edu/herbarium/databases.html?q=caltha+palustis	3 (0.12%)	1 (0.06%)	00:00:12	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
12. lsa.umich.edu/herbarium/databases.html?q=catalog	3 (0.12%)	1 (0.06%)	00:00:03	0 (0.00%)	0.00%	33.33%	\$0.00 (0.00%)
13. lsa.umich.edu/herbarium/databases.html?q=fleabane	3 (0.12%)	1 (0.06%)	00:00:16	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
14. lsa.umich.edu/herbarium/databases.html?q=native+neezweed	3 (0.12%)	1 (0.06%)	00:00:09	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
15. lsa.umich.edu/herbarium/databases?q=daviess+county	2 (0.08%)	1 (0.06%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
16. lsa.umich.edu/herbarium/databases?q=japanese+barberry+d	2 (0.08%)	1 (0.06%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
17. lsa.umich.edu/herbarium/databases.html?q=Abies+concolorConcolor+Fir	2 (0.08%)	1 (0.06%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
18. lsa.umich.edu/herbarium/databases.html?q=american+beech	2 (0.08%)	1 (0.06%)	00:00:13	1 (0.19%)	0.00%	50.00%	\$0.00 (0.00%)
19. lsa.umich.edu/herbarium/databases.html?q=amorpha+fruticosa	2 (0.08%)	1 (0.06%)	00:00:01	0 (0.00%)	0.00%	50.00%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

GOOGLE ANALYTICS – UM Herbarium Databases

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. lsa.umich.edu/herbarium/databases.html?q=botrychium matricarif olium	2 (0.08%)	1 (0.06%)	00:00:16	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
21. lsa.umich.edu/herbarium/databases.html?q=buckthorn	2 (0.08%)	1 (0.06%)	00:00:03	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
22. lsa.umich.edu/herbarium/databases.html?q=catalpa	2 (0.08%)	1 (0.06%)	00:00:08	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
23. lsa.umich.edu/herbarium/databases.html?q=Cornus florida	2 (0.08%)	1 (0.06%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
24. lsa.umich.edu/herbarium/databases.html?q=Diplopterys cabrerana	2 (0.08%)	1 (0.06%)	00:00:12	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
25. lsa.umich.edu/herbarium/databases.html?q=distribution of bitterweet	2 (0.08%)	1 (0.06%)	00:00:03	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)

Rows 1 - 25 of 107

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GOOGLE ANALYTICS – UM Herbarium Library



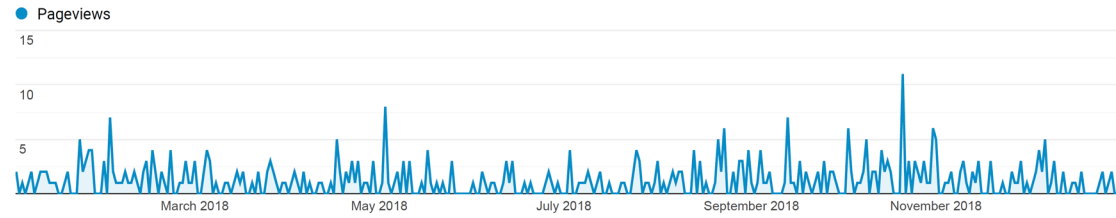
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Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: library

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	438 % of Total: 1.93% (22,738)	360 % of Total: 2.09% (17,238)	00:01:03 Avg for View: 00:01:21 (-22.93%)	82 % of Total: 0.83% (9,856)	46.99% Avg for View: 55.38% (-15.15%)	33.33% Avg for View: 43.35% (-23.10%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/herbarium/library.html	421 (96.12%)	344 (95.56%)	00:01:01	74 (90.24%)	44.00%	32.30%	\$0.00 (0.00%)
2. lsa.umich.edu/herbarium/library	10 (2.28%)	10 (2.78%)	00:06:11	8 (9.76%)	75.00%	80.00%	\$0.00 (0.00%)
3. lsa.umich.edu/herbarium/library.html?q=Glossadelphus	2 (0.46%)	1 (0.28%)	00:00:00	0 (0.00%)	0.00%	50.00%	\$0.00 (0.00%)
4. lsa.umich.edu/herbarium/library.html?q=1259957616	1 (0.23%)	1 (0.28%)	00:00:10	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
5. lsa.umich.edu/herbarium/library.html?q=business statistics communicating with numbers	1 (0.23%)	1 (0.28%)	00:00:07	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
6. lsa.umich.edu/herbarium/library.html?q=Cynanchum louiseae	1 (0.23%)	1 (0.28%)	00:00:07	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
7. lsa.umich.edu/herbarium/library.html?q=michigan+plants	1 (0.23%)	1 (0.28%)	00:00:23	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
8. lsa.umich.edu/herbarium/library.html?q=Mimulus michiganensis	1 (0.23%)	1 (0.28%)	00:00:00	0 (0.00%)	0.00%	100.00%	\$0.00 (0.00%)

Rows 1 - 8 of 8

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UM Herbarium Research

Analytics Department Sites 101-150
Herbarium

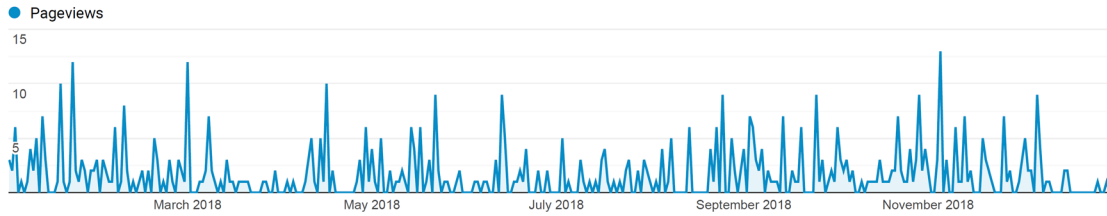
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Pages

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Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **research**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	597 % of Total: 2.63% (22,738)	451 % of Total: 2.62% (17,238)	00:00:38 Avg for View: 00:01:21 (-53.47%)	57 % of Total: 0.58% (9,856)	63.16% Avg for View: 53.38% (14.04%)	18.26% Avg for View: 43.33% (-57.88%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/herbarium/research.html	383 (64.15%)	276 (61.20%)	00:00:33	21 (36.84%)	61.90%	13.84%	\$0.00 (0.00%)
2. lsa.umich.edu/herbarium/research/current-projects.html	100 (16.75%)	87 (19.29%)	00:01:06	6 (10.53%)	16.67%	21.00%	\$0.00 (0.00%)
3. lsa.umich.edu/herbarium/research/past-projects.html	36 (6.03%)	32 (7.10%)	00:00:18	0 (0.00%)	0.00%	13.89%	\$0.00 (0.00%)
4. lsa.umich.edu/herbarium/research/past-projects/digitization-tcn--collaborative-the-macroalgal-collection-cons.html	15 (2.51%)	14 (3.10%)	00:02:17	12 (21.05%)	83.33%	73.33%	\$0.00 (0.00%)
5. lsa.umich.edu/herbarium/research/current-projects/digitization-tcn--collaborative-the-macrofungi-collection-cons.html	13 (2.18%)	13 (2.88%)	00:00:41	5 (8.77%)	100.00%	53.85%	\$0.00 (0.00%)
6. lsa.umich.edu/herbarium/news-events/all-news/search-news/in-memoriam-rob-ert-e-preston-visiting-researcher.html	10 (1.68%)	3 (0.67%)	00:00:20	2 (3.51%)	50.00%	20.00%	\$0.00 (0.00%)
7. lsa.umich.edu/herbarium/research/current-projects/digitization-tcn--collaborative-the-macrofungi-collection-cons	6 (1.01%)	5 (1.11%)	00:01:09	5 (8.77%)	20.00%	33.33%	\$0.00 (0.00%)
8. lsa.umich.edu/herbarium/news-events/all-news/search-news/in-memoriam-rob-ert-e-preston-visiting-researcher	4 (0.67%)	4 (0.89%)	00:00:00	4 (7.02%)	100.00%	100.00%	\$0.00 (0.00%)
9. lsa.umich.edu/herbarium/research.html?q=myrtaceae	3 (0.50%)	1 (0.22%)	00:00:09	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
10. lsa.umich.edu/herbarium/research/current-projects.html?q=wood+physics	3 (0.50%)	1 (0.22%)	00:00:30	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
11. lsa.umich.edu/herbarium/research.html?q=Celtis sellowiana	2 (0.34%)	1 (0.22%)	00:00:06	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
12. lsa.umich.edu/herbarium/research.html?q=flora novo-galiciana	2 (0.34%)	1 (0.22%)	00:00:03	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
13. lsa.umich.edu/herbarium/research.html?q=george reserve	2 (0.34%)	1 (0.22%)	00:00:18	1 (1.75%)	0.00%	0.00%	\$0.00 (0.00%)
14. lsa.umich.edu/herbarium/research.html?q=Graphis imshaugii	2 (0.34%)	1 (0.22%)	00:04:54	0 (0.00%)	0.00%	50.00%	\$0.00 (0.00%)
15. lsa.umich.edu/herbarium/research.html?q=New Guinea, Clemens 41394	2 (0.34%)	1 (0.22%)	00:00:07	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
16. lsa.umich.edu/herbarium/research.html?q=population+studies centre	2 (0.34%)	1 (0.22%)	00:00:00	0 (0.00%)	0.00%	50.00%	\$0.00 (0.00%)
17. lsa.umich.edu/herbarium/research/current-projects.html?q=BORNEO	2 (0.34%)	1 (0.22%)	00:00:05	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
18. lsa.umich.edu/herbarium/research/current-projects.html?q=wood+lumber drying	2 (0.34%)	1 (0.22%)	00:00:17	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
19. lsa.umich.edu/herbarium/research/past-projects.html?q=paul	2	1	00:00:02	0	0.00%	0.00%	\$0.00

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

GOOGLE ANALYTICS – UM Herbarium Research

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	(0.34%)	(0.22%)		(0.00%)			(0.00%)
20. lsa.umich.edu/herbarium/news-events/all-news/search-news/nsf-grant-for-dick-s-amazon-biota-research-is-part-of-a-4-milli	1 (0.17%)	1 (0.22%)	00:00:48	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
21. lsa.umich.edu/herbarium/news-events/all-news/search-news/nsf-grant-for-dick-s-amazon-biota-research-is-part-of-a-4-milli.html	1 (0.17%)	1 (0.22%)	00:00:00	1 (1.75%)	100.00%	100.00%	\$0.00 (0.00%)
22. lsa.umich.edu/herbarium/research.html?q=black locusts	1 (0.17%)	1 (0.22%)	00:00:06	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
23. lsa.umich.edu/herbarium/research.html?q=Ditrichaceae	1 (0.17%)	1 (0.22%)	00:00:12	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
24. lsa.umich.edu/herbarium/research.html?q=ERODIUM	1 (0.17%)	1 (0.22%)	00:00:16	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
25. lsa.umich.edu/herbarium/research/current-projects.html?q=fluid+transfer in wood	1 (0.17%)	1 (0.22%)	00:00:00	0 (0.00%)	0.00%	100.00%	\$0.00 (0.00%)

Rows 1 - 25 of 25

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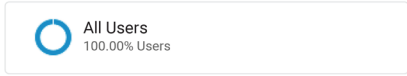
2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UMMZ Audience Overview



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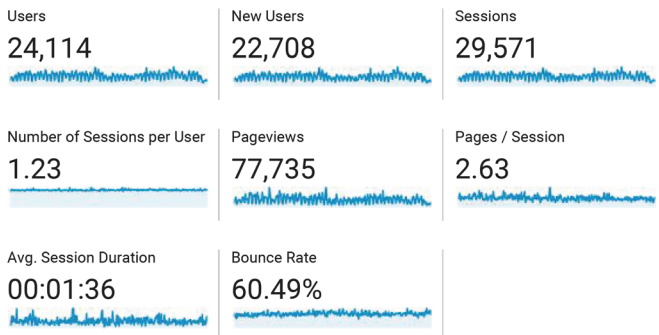
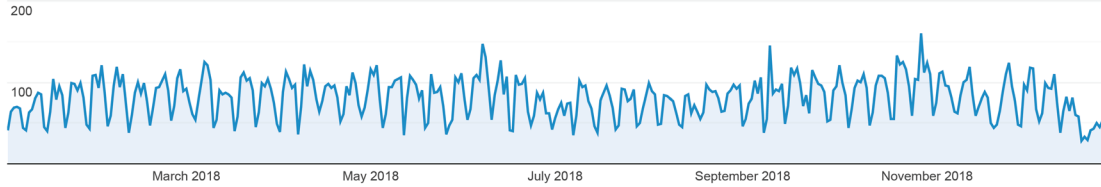
Audience Overview



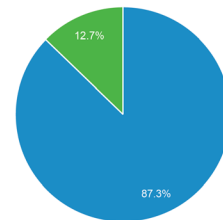
Jan 1, 2018 - Dec 31, 2018

Overview

Sessions



New Visitor Returning Visitor

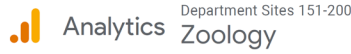


Country	Users	% Users
1. United States	14,093	59.10%
2. India	1,703	7.14%
3. Nigeria	909	3.81%
4. Philippines	649	2.72%
5. Canada	586	2.46%
6. United Kingdom	460	1.93%
7. Australia	402	1.69%
8. Brazil	339	1.42%
9. Pakistan	303	1.27%
10. Kenya	287	1.20%

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GOOGLE ANALYTICS – UMMZ Bird Division



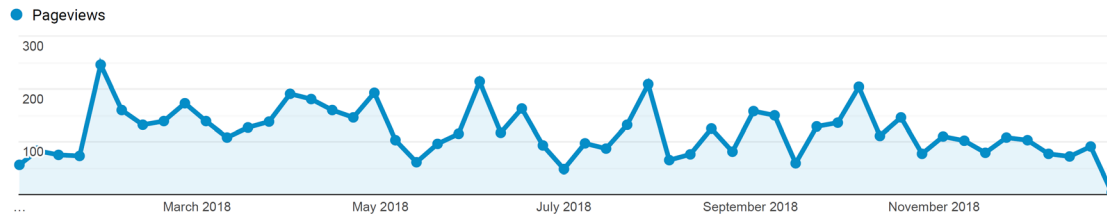
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Pages

All Users
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Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **bird**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	6,318 % of Total: 8.13% (77,735)	4,533 % of Total: 8.10% (55,962)	00:00:44 Avg for View: 00:00:59 (-24.48%)	1,120 % of Total: 3.79% (29,528)	53.52% Avg for View: 60.49% (-11.51%)	24.25% Avg for View: 37.99% (-36.16%)	\$0.00 % of Total: 0.00% (\$0.00)
1. Isa.umich.edu/ummz/birds.html	1,751 (27.71%)	1,322 (29.16%)	00:00:41	571 (50.98%)	50.09%	27.01%	\$0.00 (0.00%)
2. Isa.umich.edu/ummz/birds/bird-collections.html	743 (11.76%)	487 (10.74%)	00:00:21	37 (3.30%)	17.95%	10.63%	\$0.00 (0.00%)
3. Isa.umich.edu/ummz/birds/personnel.html	513 (8.12%)	397 (8.76%)	00:00:47	21 (1.88%)	33.33%	20.27%	\$0.00 (0.00%)
4. Isa.umich.edu/ummz/birds/bird-collections/specimen-holdings.html	425 (6.73%)	328 (7.24%)	00:01:26	21 (1.88%)	61.11%	29.65%	\$0.00 (0.00%)
5. Isa.umich.edu/ummz/birds/michigan-birds.html	259 (4.10%)	200 (4.41%)	00:02:07	66 (5.89%)	50.00%	37.45%	\$0.00 (0.00%)
6. Isa.umich.edu/ummz/birds/bird-collections/history-of-ornithology.html	206 (3.26%)	177 (3.90%)	00:01:48	69 (6.16%)	63.77%	45.63%	\$0.00 (0.00%)
7. Isa.umich.edu/ummz/birds/publications.html	172 (2.72%)	113 (2.49%)	00:00:20	2 (0.18%)	50.00%	9.30%	\$0.00 (0.00%)
8. Isa.umich.edu/ummz/birds/bird-collections/accessions-and-loan-policies.html	145 (2.30%)	104 (2.29%)	00:00:54	15 (1.34%)	53.33%	19.31%	\$0.00 (0.00%)
9. Isa.umich.edu/ummz/birds/visitors.html	137 (2.17%)	111 (2.45%)	00:00:22	2 (0.18%)	50.00%	11.68%	\$0.00 (0.00%)
10. Isa.umich.edu/ummz/birds/bird-collections/field-notes-and-records.html	122 (1.93%)	105 (2.32%)	00:00:44	11 (0.98%)	63.64%	18.85%	\$0.00 (0.00%)
11. Isa.umich.edu/ummz/birds/bird-collections/information-requests.html	118 (1.87%)	94 (2.07%)	00:00:47	2 (0.18%)	0.00%	22.88%	\$0.00 (0.00%)
12. Isa.umich.edu/ummz/birds/michigan-birds/peregrine-falcons-at-the-university-of-michigan.html	115 (1.82%)	97 (2.14%)	00:02:17	85 (7.59%)	78.82%	68.70%	\$0.00 (0.00%)
13. Isa.umich.edu/ummz/birds/publications/occasional-papers.html	113 (1.79%)	85 (1.88%)	00:01:07	2 (0.18%)	0.00%	19.47%	\$0.00 (0.00%)
14. Isa.umich.edu/ummz/birds	108 (1.71%)	94 (2.07%)	00:00:51	77 (6.88%)	40.26%	43.52%	\$0.00 (0.00%)
15. Isa.umich.edu/ummz/birds/publications/published-papers-list.html	102 (1.61%)	93 (2.05%)	00:00:37	17 (1.52%)	94.12%	34.31%	\$0.00 (0.00%)
16. Isa.umich.edu/ummz/birds/publications/miscellaneous-publications.html	78 (1.23%)	66 (1.46%)	00:00:38	3 (0.27%)	33.33%	21.79%	\$0.00 (0.00%)
17. Isa.umich.edu/ummz/birds/michigan-birds/distributional-checklist.html	75 (1.19%)	62 (1.37%)	00:00:59	18 (1.61%)	64.71%	44.00%	\$0.00 (0.00%)
18. Isa.umich.edu/ummz/birds/bird-collections/accessions-and-loan-policies/genetic-materials-grant-policy.html	52 (0.82%)	43 (0.95%)	00:01:37	11 (0.98%)	81.82%	48.08%	\$0.00 (0.00%)
19. Isa.umich.edu/ummz/birds/michigan-birds/distributional-checklist	43 (0.68%)	38 (0.84%)	00:02:07	24 (2.14%)	79.17%	72.09%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

GOOGLE ANALYTICS – UMMZ Bird Division

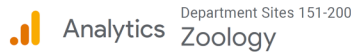
Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. lsa.umich.edu/ummz/birds.html?q=toucan	42 (0.66%)	2 (0.04%)	00:00:01	0 (0.00%)	0.00%	2.38%	\$0.00 (0.00%)
21. lsa.umich.edu/ummz/birds/personnel/collection-workers-and-volunteers.html	39 (0.62%)	31 (0.68%)	00:00:29	1 (0.09%)	100.00%	15.38%	\$0.00 (0.00%)
22. lsa.umich.edu/ummz/birds/publications/BirdsLibrary.html	38 (0.60%)	31 (0.68%)	00:00:16	0 (0.00%)	0.00%	28.95%	\$0.00 (0.00%)
23. lsa.umich.edu/ummz/news-events/all-news/search-news/global-michigan-article-about-a-himalayan-bird-mystery-features-.html	29 (0.46%)	24 (0.53%)	00:01:34	5 (0.45%)	40.00%	44.83%	\$0.00 (0.00%)
24. lsa.umich.edu/ummz/birds/publications.html?q=babo virginianus	28 (0.44%)	1 (0.02%)	00:00:01	0 (0.00%)	0.00%	3.57%	\$0.00 (0.00%)
25. author.lsa.umich.edu/content/michigan-lsa/ummz/en/birds.html	22 (0.35%)	8 (0.18%)	00:00:10	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)

Rows 1 - 25 of 311

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2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UMMZ Fish Division



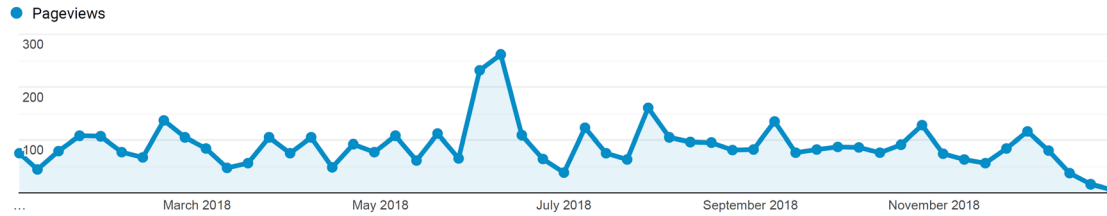
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Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **fish**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	4,713 % of Total: 6.06% (77,735)	3,307 % of Total: 5.91% (55,962)	00:00:52 Avg for View: 00:00:59 (-11.85%)	1,073 % of Total: 3.63% (29,528)	45.32% Avg for View: 60.49% (-25.08%)	28.54% Avg for View: 37.99% (-24.87%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/ummz/fishes.html	1,686 (35.77%)	1,305 (39.46%)	00:00:32	698 (65.05%)	57.06%	33.21%	\$0.00 (0.00%)
2. lsa.umich.edu/ummz/fishes/collections.html	1,048 (22.24%)	652 (19.72%)	00:01:36	194 (18.08%)	13.85%	36.26%	\$0.00 (0.00%)
3. lsa.umich.edu/ummz/fishes/personnel.html	576 (12.22%)	440 (13.31%)	00:01:00	20 (1.86%)	63.16%	23.61%	\$0.00 (0.00%)
4. lsa.umich.edu/ummz/fishes/publications.html	275 (5.83%)	192 (5.81%)	00:00:32	40 (3.73%)	30.00%	18.55%	\$0.00 (0.00%)
5. lsa.umich.edu/ummz/fishes/publications/miscellaneous-publications.html	164 (3.48%)	131 (3.96%)	00:01:50	22 (2.05%)	33.33%	32.32%	\$0.00 (0.00%)
6. lsa.umich.edu/ummz/fishes/publications/occasional-papers.html	162 (3.44%)	131 (3.96%)	00:01:56	17 (1.58%)	45.00%	27.16%	\$0.00 (0.00%)
7. lsa.umich.edu/ummz/fishes/visitors.html	158 (3.35%)	132 (3.99%)	00:00:22	6 (0.56%)	75.00%	17.09%	\$0.00 (0.00%)
8. lsa.umich.edu/ummz/fishes	56 (1.19%)	50 (1.51%)	00:00:26	49 (4.57%)	16.33%	17.86%	\$0.00 (0.00%)
9. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=Blob+fish	47 (1.00%)	1 (0.03%)	00:00:06	0 (0.00%)	0.00%	2.13%	\$0.00 (0.00%)
10. lsa.umich.edu/ummz/fishes/collections.html?q=stargazer+fish	44 (0.93%)	1 (0.03%)	<00:00:01	0 (0.00%)	0.00%	2.27%	\$0.00 (0.00%)
11. lsa.umich.edu/ummz/fishes/collections.html?q=Robert+rush+miller	24 (0.51%)	1 (0.03%)	00:00:05	0 (0.00%)	0.00%	4.17%	\$0.00 (0.00%)
12. lsa.umich.edu/ummz/publications/featured-publications/fishes-of-the-greater-mekong-ecosystem.html	17 (0.36%)	9 (0.27%)	00:02:32	9 (0.84%)	33.33%	47.06%	\$0.00 (0.00%)
13. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=Royalstarfish	15 (0.32%)	1 (0.03%)	00:00:01	0 (0.00%)	0.00%	6.67%	\$0.00 (0.00%)
14. lsa.umich.edu/ummz/news-events/all-news/visitors-to-ummz/invasive-fish-species-workshop.html	15 (0.32%)	15 (0.45%)	00:02:06	1 (0.09%)	0.00%	20.00%	\$0.00 (0.00%)
15. lsa.umich.edu/ummz/news-events/all-news/visitors-to-ummz/brazilian-ph-d-student-visits-fish-division.html	14 (0.30%)	13 (0.39%)	00:00:34	0 (0.00%)	0.00%	14.29%	\$0.00 (0.00%)
16. lsa.umich.edu/ummz/?q=narrow+lined+puffer+fish	13 (0.28%)	1 (0.03%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
17. lsa.umich.edu/ummz/fishes/collections.html?q=Shrimp	13 (0.28%)	1 (0.03%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
18. lsa.umich.edu/ummz/fishes/publications.html?q=death+valley+pupfish	13 (0.28%)	1 (0.03%)	00:00:07	0 (0.00%)	0.00%	7.69%	\$0.00 (0.00%)
19. lsa.umich.edu/ummz/news-events/all-news/search-news/invasive-fish-species-workshop.html	11 (0.23%)	9 (0.27%)	00:00:43	0 (0.00%)	0.00%	9.09%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

GOOGLE ANALYTICS – UMMZ Fish Division

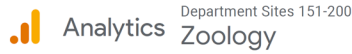
Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. translate.googleusercontent.com/translate_c?depth=1&hl=es&prev=search&rurl=translate.google.com.co&sl=en&sp=nmt4&u=https://lsa.umich.edu/ummz/fishes/collections.html&xid=25657,1570022,15700124,15700149,15700168,15700186,15700201&usg=ALkJrhhccTuqb0ledc0LtkAw6AAAnXTHQ	11 (0.23%)	1 (0.03%)	00:00:26	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
21. author.lsa.umich.edu/content/michigan-lsa/ummz/en/fishes.html	9 (0.19%)	6 (0.18%)	00:00:06	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
22. lsa.umich.edu/ummz/?q=bluegull fish	9 (0.19%)	1 (0.03%)	00:00:02	0 (0.00%)	0.00%	11.11%	\$0.00 (0.00%)
23. lsa.umich.edu/ummz/fishes/collections	9 (0.19%)	6 (0.18%)	00:03:30	6 (0.56%)	16.67%	33.33%	\$0.00 (0.00%)
24. lsa.umich.edu/ummz/herps/publications/occasional-papers.html?q=Collins, J. P., Wilbur, H. M. (1979). Breeding habits and habitats of amphibians of the Edwin S. George Reserve, Michigan, with notes on the local distribution of fishes. Occasional Papers of the Museum of Zoology, University of Michigan, n° 686, 1-34pp.	9 (0.19%)	1 (0.03%)	00:00:03	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
25. lsa.umich.edu/ummz/fishes/publications/occasional-papers.html?q=sea star	8 (0.17%)	1 (0.03%)	00:00:02	0 (0.00%)	0.00%	12.50%	\$0.00 (0.00%)

Rows 1 - 25 of 216

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2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UMMZ Insect Division



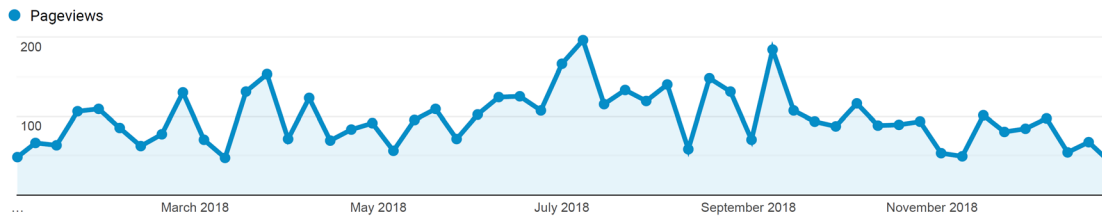
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Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **Insects**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	5,133 % of Total: 6.60% (77,735)	3,461 % of Total: 6.18% (55,962)	00:00:44 Avg for View: 00:00:59 (-25.46%)	899 % of Total: 3.04% (29,528)	41.82% Avg for View: 60.49% (-30.86%)	20.24% Avg for View: 37.99% (-46.71%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/ummz/insects.html	1,302 (25.37%)	949 (27.42%)	00:00:33	489 (54.39%)	39.06%	23.43%	\$0.00 (0.00%)
2. lsa.umich.edu/ummz/insects/personnel.html	749 (14.59%)	418 (12.08%)	00:00:54	28 (3.11%)	40.74%	18.56%	\$0.00 (0.00%)
3. lsa.umich.edu/ummz/insects/collections.html	619 (12.06%)	401 (11.59%)	00:00:19	123 (13.68%)	28.80%	14.54%	\$0.00 (0.00%)
4. lsa.umich.edu/ummz/insects/collections/databases.html	422 (8.22%)	276 (7.97%)	00:00:57	48 (5.34%)	28.57%	21.56%	\$0.00 (0.00%)
5. lsa.umich.edu/ummz/insects/collections/specimen-holdings.html	360 (7.01%)	265 (7.66%)	00:01:05	30 (3.34%)	72.41%	23.89%	\$0.00 (0.00%)
6. lsa.umich.edu/ummz/insects/visitors.html	154 (3.00%)	116 (3.35%)	00:00:33	12 (1.33%)	58.33%	16.23%	\$0.00 (0.00%)
7. lsa.umich.edu/ummz/insects/employment-volunteering.html	149 (2.90%)	91 (2.63%)	00:00:59	13 (1.45%)	53.85%	22.15%	\$0.00 (0.00%)
8. lsa.umich.edu/ummz/insects/collections/facilities.html	141 (2.75%)	114 (3.29%)	00:01:57	30 (3.34%)	72.41%	28.37%	\$0.00 (0.00%)
9. lsa.umich.edu/ummz/insects/publications.html	116 (2.26%)	86 (2.48%)	00:00:25	1 (0.11%)	0.00%	7.76%	\$0.00 (0.00%)
10. lsa.umich.edu/ummz/insects/collections/insect-division-history.html	111 (2.16%)	97 (2.80%)	00:00:30	8 (0.89%)	62.50%	20.72%	\$0.00 (0.00%)
11. lsa.umich.edu/ummz/insects/publications/miscellaneous-publications.html	109 (2.12%)	68 (1.96%)	00:01:43	8 (0.89%)	37.50%	26.61%	\$0.00 (0.00%)
12. lsa.umich.edu/ummz/insects/publications/occasional-papers.html	109 (2.12%)	81 (2.34%)	00:01:24	13 (1.45%)	38.46%	25.69%	\$0.00 (0.00%)
13. lsa.umich.edu/ummz/insects/collections/acquisition-policy.html	78 (1.52%)	49 (1.42%)	00:00:44	0 (0.00%)	0.00%	11.54%	\$0.00 (0.00%)
14. lsa.umich.edu/ummz/insects/collections/employment-volunteering.html	64 (1.25%)	53 (1.53%)	00:00:59	15 (1.67%)	53.33%	32.81%	\$0.00 (0.00%)
15. lsa.umich.edu/ummz/insects/collections/loan-policies.html	55 (1.07%)	46 (1.33%)	00:00:31	6 (0.67%)	66.67%	18.18%	\$0.00 (0.00%)
16. author.lsa.umich.edu/content/michigan-lsa/ummz/en/insects.html	52 (1.01%)	21 (0.61%)	00:01:21	0 (0.00%)	0.00%	3.85%	\$0.00 (0.00%)
17. lsa.umich.edu/ummz/insects/publications/barry-oconnor-publications.html	44 (0.86%)	36 (1.04%)	00:00:29	12 (1.33%)	75.00%	29.55%	\$0.00 (0.00%)
18. lsa.umich.edu/ummz/insects/publications/lacey-knowles-publications.html	43 (0.84%)	40 (1.16%)	00:00:49	18 (2.00%)	83.33%	46.51%	\$0.00 (0.00%)
19. lsa.umich.edu/ummz/insects	36 (0.70%)	29 (0.84%)	00:00:20	28 (3.11%)	50.00%	47.22%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
Annual Report

GOOGLE ANALYTICS – UMMZ Insect Division

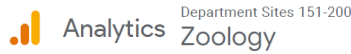
Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. lsa.umich.edu/ummz/insects.html?q=museum hours	25 (0.49%)	1 (0.03%)	00:00:06	0 (0.00%)	0.00%	4.00%	\$0.00 (0.00%)
21. lsa.umich.edu/ummz/insects/collections/databases.html?q=cymaenes	19 (0.37%)	2 (0.06%)	00:00:25	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
22. author.lsa.umich.edu/content/michigan-lsa/ummz/en/insects/personnel.html	15 (0.29%)	11 (0.32%)	00:00:37	0 (0.00%)	0.00%	6.67%	\$0.00 (0.00%)
23. lsa.umich.edu/ummz/insects/collections.html?q=Delphacidae	14 (0.27%)	1 (0.03%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
24. author.lsa.umich.edu/content/michigan-lsa/ummz/en/insects/visitors.html	13 (0.25%)	4 (0.12%)	00:00:27	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
25. lsa.umich.edu/ummz/insects/collections/specimen-holdings	12 (0.23%)	10 (0.29%)	00:00:20	10 (1.11%)	40.00%	41.67%	\$0.00 (0.00%)

Rows 1 - 25 of 202

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2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UMMZ Mammal Division



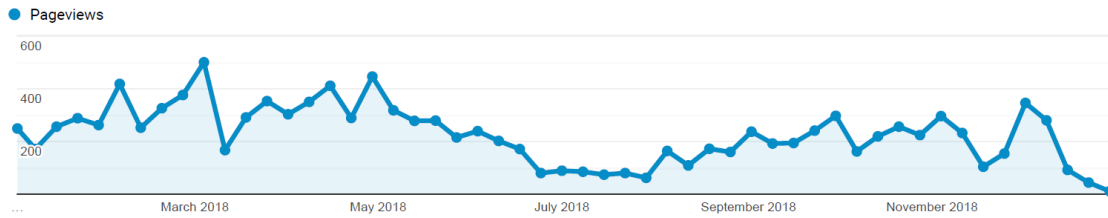
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Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **Mammals**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	12,066 % of Total: 15.52% (77,735)	7,296 % of Total: 13.04% (55,962)	00:00:33 Avg for View: 00:00:59 (-43.72%)	2,959 % of Total: 10.02% (29,528)	38.85% Avg for View: 60.49% (-35.77%)	27.15% Avg for View: 37.99% (-28.52%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/ummz/mammals/animal-diversity-web.html	3,122 (25.87%)	2,358 (32.32%)	00:01:02	2,127 (71.88%)	39.87%	53.30%	\$0.00 (0.00%)
2. lsa.umich.edu/ummz/mammals.html	1,784 (14.79%)	1,313 (18.00%)	00:00:38	288 (9.73%)	26.30%	19.90%	\$0.00 (0.00%)
3. lsa.umich.edu/ummz/mammals/collections.html	1,081 (8.96%)	824 (11.29%)	00:00:39	70 (2.37%)	38.57%	23.40%	\$0.00 (0.00%)
4. lsa.umich.edu/ummz/mammals/personnel.html	437 (3.62%)	339 (4.65%)	00:00:44	12 (0.41%)	36.36%	19.22%	\$0.00 (0.00%)
5. lsa.umich.edu/ummz/mammals/publications.html	301 (2.49%)	221 (3.03%)	00:00:18	26 (0.88%)	19.23%	14.95%	\$0.00 (0.00%)
6. lsa.umich.edu/ummz/mammals/publications/miscellaneous-publications.html	293 (2.43%)	209 (2.86%)	00:01:03	97 (3.28%)	39.80%	30.72%	\$0.00 (0.00%)
7. lsa.umich.edu/ummz/mammals/publications/occasional-papers.html	256 (2.12%)	169 (2.32%)	00:01:05	52 (1.76%)	30.77%	27.34%	\$0.00 (0.00%)
8. lsa.umich.edu/ummz/mammals/mammal-division-policies.html	254 (2.11%)	220 (3.02%)	00:01:27	47 (1.59%)	76.60%	42.52%	\$0.00 (0.00%)
9. lsa.umich.edu/ummz/mammals/animal-diversity-web	230 (1.91%)	198 (2.71%)	00:00:41	196 (6.62%)	42.86%	58.70%	\$0.00 (0.00%)
10. lsa.umich.edu/ummz/mammals/visitors.html	81 (0.67%)	62 (0.85%)	00:00:19	0 (0.00%)	0.00%	12.35%	\$0.00 (0.00%)
11. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=Blob+fish	47 (0.39%)	1 (0.01%)	00:00:06	0 (0.00%)	0.00%	2.13%	\$0.00 (0.00%)
12. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=horse	47 (0.39%)	5 (0.07%)	00:00:24	0 (0.00%)	0.00%	2.13%	\$0.00 (0.00%)
13. lsa.umich.edu/ummz/mammals/animal-diversity-web?q=Daddy+long+leg+spider	45 (0.37%)	1 (0.01%)	<00:00:01	0 (0.00%)	0.00%	2.22%	\$0.00 (0.00%)
14. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=pig	45 (0.37%)	1 (0.01%)	00:00:02	0 (0.00%)	0.00%	2.22%	\$0.00 (0.00%)
15. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=worms	45 (0.37%)	4 (0.05%)	00:00:04	0 (0.00%)	0.00%	4.44%	\$0.00 (0.00%)
16. lsa.umich.edu/ummz/mammals.html?q=polar+bear	41 (0.34%)	1 (0.01%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
17. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=giant+pacific+octopus	41 (0.34%)	2 (0.03%)	00:00:01	0 (0.00%)	0.00%	4.88%	\$0.00 (0.00%)
18. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=shrimp+lifespan	40 (0.33%)	1 (0.01%)	00:00:01	0 (0.00%)	0.00%	2.50%	\$0.00 (0.00%)
19. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=feather+st	37 (0.31%)	2 (0.03%)	00:00:09	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
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GOOGLE ANALYTICS – UMMZ Mammal Division

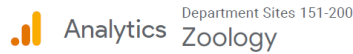
Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	(0.01%)	(0.03%)		(0.00%)			(0.00%)
20. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=porifera	36 (0.30%)	1 (0.01%)	00:00:01	0 (0.00%)	0.00%	2.78%	\$0.00 (0.00%)
21. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=african mantee	35 (0.29%)	1 (0.01%)	00:00:01	0 (0.00%)	0.00%	2.86%	\$0.00 (0.00%)
22. lsa.umich.edu/ummz/mammals.html?q=woodchuck	31 (0.26%)	2 (0.03%)	00:00:02	0 (0.00%)	0.00%	3.23%	\$0.00 (0.00%)
23. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=Acorn bar nacle	31 (0.26%)	1 (0.01%)	00:00:01	0 (0.00%)	0.00%	3.23%	\$0.00 (0.00%)
24. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=cat	31 (0.26%)	5 (0.07%)	00:00:05	0 (0.00%)	0.00%	6.45%	\$0.00 (0.00%)
25. lsa.umich.edu/ummz/mammals/animal-diversity-web.html?q=western scrub-jay	31 (0.26%)	1 (0.01%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)

Rows 1 - 25 of 1167

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2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UMMZ Mollusk Division



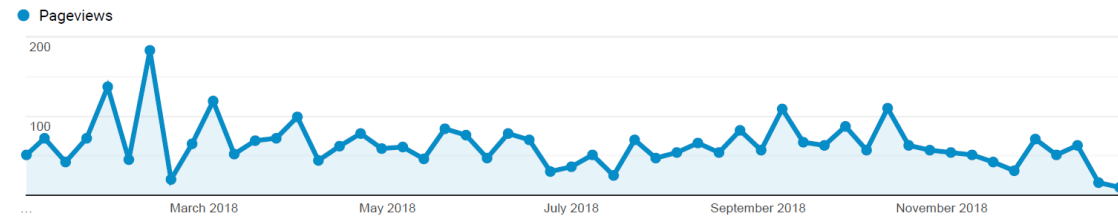
[Go to report](#)

Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **mollusks**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	3,377 % of Total: 4.34% (77,735)	2,369 % of Total: 4.23% (55,962)	00:01:12 Avg for View: 00:00:59 (22.97%)	869 % of Total: 2.94% (29,528)	31.96% Avg for View: 60.49% (-47.16%)	31.89% Avg for View: 37.99% (-16.04%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/ummz/mollusks.html	886 (26.24%)	659 (27.82%)	00:00:39	218 (25.09%)	29.09%	20.32%	\$0.00 (0.00%)
2. lsa.umich.edu/ummz/mollusks/collections.html	608 (18.00%)	446 (18.83%)	00:02:41	145 (16.69%)	45.58%	49.34%	\$0.00 (0.00%)
3. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html	550 (16.29%)	414 (17.48%)	00:03:14	380 (43.73%)	23.64%	62.00%	\$0.00 (0.00%)
4. lsa.umich.edu/ummz/mollusks/personnel.html	329 (9.74%)	246 (10.38%)	00:00:55	14 (1.61%)	69.23%	23.40%	\$0.00 (0.00%)
5. lsa.umich.edu/ummz/mollusks/publications/occasional-papers.html	236 (6.99%)	179 (7.56%)	00:01:49	65 (7.48%)	46.88%	33.47%	\$0.00 (0.00%)
6. lsa.umich.edu/ummz/mollusks/publications.html	187 (5.54%)	123 (5.19%)	00:00:24	7 (0.81%)	14.29%	10.70%	\$0.00 (0.00%)
7. lsa.umich.edu/ummz/mollusks/publications/miscellaneous-publications.html	113 (3.35%)	89 (3.76%)	00:00:53	5 (0.58%)	80.00%	17.70%	\$0.00 (0.00%)
8. lsa.umich.edu/ummz/mollusks/visitors.html	64 (1.90%)	48 (2.03%)	00:00:38	0 (0.00%)	0.00%	14.06%	\$0.00 (0.00%)
9. lsa.umich.edu/ummz/mollusks.html?q=artemia salina	28 (0.83%)	1 (0.04%)	00:00:05	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
10. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=1980	22 (0.65%)	1 (0.04%)	<00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
11. lsa.umich.edu/ummz/mollusks.html?q=gastropods	20 (0.59%)	1 (0.04%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
12. lsa.umich.edu/ummz/mollusks	18 (0.53%)	15 (0.63%)	00:03:07	13 (1.50%)	46.15%	44.44%	\$0.00 (0.00%)
13. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=1390	16 (0.47%)	1 (0.04%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
14. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=An+introduction by Vietnamese refugees	16 (0.47%)	1 (0.04%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
15. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=90	14 (0.41%)	1 (0.04%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
16. lsa.umich.edu/ummz/mollusks.html?q=bulinus	12 (0.36%)	2 (0.08%)	00:00:05	0 (0.00%)	0.00%	8.33%	\$0.00 (0.00%)
17. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=vol:13	11 (0.33%)	1 (0.04%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
18. lsa.umich.edu/ummz/mollusks/resources.html	10 (0.30%)	3 (0.13%)	00:00:10	0 (0.00%)	0.00%	20.00%	\$0.00 (0.00%)
19. lsa.umich.edu/ummz/mollusks/personnel.directory.html	9 (0.27%)	9 (0.38%)	00:00:27	5 (0.58%)	40.00%	33.33%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
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GOOGLE ANALYTICS – UMMZ Mollusk Division

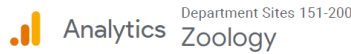
Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=1980+13	9 (0.27%)	1 (0.04%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
21. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=13+90	8 (0.24%)	1 (0.04%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
22. lsa.umich.edu/ummz/mollusks/collections.html?q=dolioides	7 (0.21%)	1 (0.04%)	00:00:02	0 (0.00%)	0.00%	14.29%	\$0.00 (0.00%)
23. lsa.umich.edu/ummz/mollusks/publications/malacological-review	7 (0.21%)	7 (0.30%)	00:02:53	7 (0.81%)	28.57%	71.43%	\$0.00 (0.00%)
24. lsa.umich.edu/ummz/mollusks/publications/malacological-review.html?q=90-92	7 (0.21%)	1 (0.04%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
25. lsa.umich.edu/ummz/mollusks.html?q=NAUTILLOS+TAXONOMIA	6 (0.18%)	1 (0.04%)	00:00:03	0 (0.00%)	0.00%	16.67%	\$0.00 (0.00%)

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2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ) Annual Report

GOOGLE ANALYTICS – UMMZ Reptile and Amphibian Division



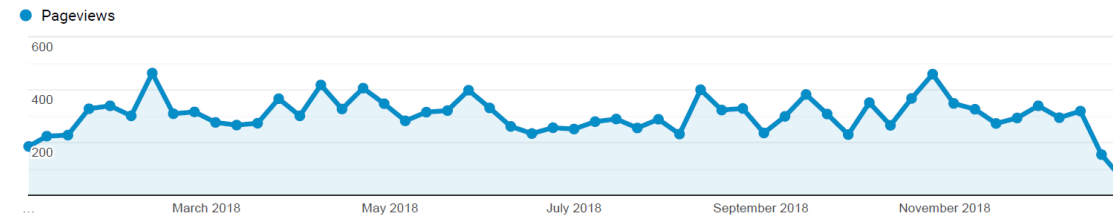
[Go to report](#)

Pages

All Users
100.00% Pageviews

Jan 1, 2018 - Dec 31, 2018

Explorer



This data was filtered with the following filter expression: **herp**

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	16,020 % of Total: 20.61% (77,735)	12,787 % of Total: 22.85% (55,962)	00:02:05 Avg for View: 00:00:59 (112.08%)	9,668 % of Total: 32.74% (29,528)	83.53% Avg for View: 60.49% (38.10%)	62.84% Avg for View: 37.99% (65.43%)	\$0.00 % of Total: 0.00% (\$0.00)
1. lsa.umich.edu/ummz/herps/collections/preservation-techniques.html	9,009 (56.24%)	7,981 (62.41%)	00:05:50	7,907 (81.79%)	89.19%	87.00%	\$0.00 (0.00%)
2. lsa.umich.edu/ummz/herps.html	1,603 (10.01%)	1,180 (9.23%)	00:00:45	497 (5.14%)	24.30%	21.52%	\$0.00 (0.00%)
3. lsa.umich.edu/ummz/herps/collections.html	1,068 (6.67%)	640 (5.01%)	00:01:15	89 (0.92%)	32.97%	32.96%	\$0.00 (0.00%)
4. lsa.umich.edu/ummz/herps/collections/preservation-techniques	671 (4.19%)	597 (4.67%)	00:05:49	594 (6.14%)	89.06%	87.63%	\$0.00 (0.00%)
5. lsa.umich.edu/ummz/herps/personnel.html	535 (3.34%)	366 (2.86%)	00:01:02	11 (0.11%)	50.00%	21.68%	\$0.00 (0.00%)
6. lsa.umich.edu/ummz/herps/publications/occasional-papers.html	526 (3.28%)	237 (1.85%)	00:02:30	105 (1.09%)	41.12%	32.51%	\$0.00 (0.00%)
7. lsa.umich.edu/ummz/herps/michigan-reptiles-amphibians.html	267 (1.67%)	169 (1.32%)	00:00:34	35 (0.36%)	33.33%	20.60%	\$0.00 (0.00%)
8. lsa.umich.edu/googleweblight.com/ummz/herps/collections/preservation-techniques.html	227 (1.42%)	198 (1.55%)	00:06:31	198 (2.05%)	88.38%	87.22%	\$0.00 (0.00%)
9. lsa.umich.edu/ummz/herps/publications/miscellaneous-publications.html	206 (1.29%)	153 (1.20%)	00:02:45	14 (0.14%)	28.57%	40.78%	\$0.00 (0.00%)
10. lsa.umich.edu/ummz/herps/publications.html	195 (1.22%)	148 (1.16%)	00:00:13	3 (0.03%)	0.00%	5.64%	\$0.00 (0.00%)
11. lsa.umich.edu/ummz/herps/resources.html	187 (1.17%)	140 (1.09%)	00:00:51	8 (0.08%)	62.50%	18.72%	\$0.00 (0.00%)
12. lsa.umich.edu/ummz/herps/collections/about-the-collection.html	154 (0.96%)	120 (0.94%)	00:00:35	17 (0.18%)	47.06%	18.18%	\$0.00 (0.00%)
13. lsa.umich.edu/ummz/herps/collections/history.html	130 (0.81%)	110 (0.86%)	00:01:05	41 (0.42%)	56.10%	36.15%	\$0.00 (0.00%)
14. lsa.umich.edu/ummz/herps/collections/former-curators.html	128 (0.80%)	103 (0.81%)	00:01:06	27 (0.28%)	25.93%	25.78%	\$0.00 (0.00%)
15. lsa.umich.edu/ummz/herps	71 (0.44%)	55 (0.43%)	00:00:59	30 (0.31%)	26.67%	35.21%	\$0.00 (0.00%)
16. lsa.umich.edu/ummz/herps/michigan-reptiles-amphibians/frogs.html	58 (0.36%)	37 (0.29%)	00:02:04	12 (0.12%)	83.33%	31.03%	\$0.00 (0.00%)
17. author.lsa.umich.edu/content/michigan-lsa/ummz/en/herps/michigan-reptiles-amphibians.html	41 (0.26%)	11 (0.09%)	00:01:38	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
18. lsa.umich.edu/ummz/herps.html?q=scorpions	38 (0.24%)	1 (0.01%)	00:00:02	0 (0.00%)	0.00%	2.63%	\$0.00 (0.00%)
19. lsa.umich.edu/ummz//herps	31 (0.19%)	23 (0.18%)	00:02:58	9 (0.09%)	33.33%	25.81%	\$0.00 (0.00%)

2018 University of Michigan Herbarium (MICH) and University of Michigan Museum of Zoology (UMMZ)
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GOOGLE ANALYTICS – UMMZ Reptile and Amphibian Division

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
20. author.lsa.umich.edu/content/michigan-lsa/ummz/en/herps/michigan-reptiles-amphibians/frogs.html	29 (0.18%)	12 (0.09%)	00:02:26	5 (0.05%)	0.00%	27.59%	\$0.00 (0.00%)
21. author.lsa.umich.edu/content/michigan-lsa/ummz/en/herps.html	27 (0.17%)	16 (0.13%)	00:01:35	1 (0.01%)	0.00%	0.00%	\$0.00 (0.00%)
22. lsa.umich.edu/ummz/news-events/all-news/search-news/new-digital-collection-museum-of-zoology-herpetology-radiograph.html	24 (0.15%)	18 (0.14%)	00:01:31	4 (0.04%)	25.00%	16.67%	\$0.00 (0.00%)
23. lsa.umich.edu/ummz/herps/collections.html?q=tiger	22 (0.14%)	1 (0.01%)	00:00:02	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)
24. lsa.umich.edu/ummz/herps.html?q=African Terapins	20 (0.12%)	1 (0.01%)	00:00:02	0 (0.00%)	0.00%	5.00%	\$0.00 (0.00%)
25. lsa.umich.edu/ummz/herps.html?q=Yucca night lizard	20 (0.12%)	1 (0.01%)	00:00:01	0 (0.00%)	0.00%	0.00%	\$0.00 (0.00%)

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