



ORMA J. SMITH MUSEUM OF NATURAL HISTORY FY 2020 ANNUAL REPORT



The Arctic fox pictured above is on display in the Museum. Arctic foxes (*Vulpes lagopus*) occur in tundra and some boreal forest habitats of northern Alaska, Canada, Greenland, Iceland, northern Europe, and Siberia. As omnivores they eat just about anything they can find: rodents, birds, fish, carrion, eggs, seal pups, seaweed, and berries. They are active all year and do not hibernate, but do store food for winter. These small foxes have a number of adaptations that allow them to withstand extreme cold; they do not even shiver until temperatures drop to -94 degrees F. They are one of several animals that turn white in winter; in summer they have a brown, bluish, or gray coat color. They occasionally travel long distances: one yearling female went from Norway to Greenland and then on to Ellesmere Island (Canada) over the ice covering almost 2200 miles in 76 days. (Information provided by Eric Yensen) (Photograph provided by Misty Koeppen)

Director's Message

Welcome to the Orma J. Smith Museum of Natural History Annual Report for fiscal year 2020! Please read the following for an overview of what was accomplished this past year.

What a year (an understatement): record progress in the Museum and at the College and the shutdown of both due to COVID-19.

This year began with the hiring of our new Museum Administrative Assistant, Misty Koeppen. Misty is an educator and very interested in the Museum and is thus helping move us forward. We also added new Volunteers and Board Members to our workforce. Museum Curators, Volunteers and Staff have worked thousands of hours in the Museum and have donated thousands of hours of work on Museum issues, outside of the Museum itself.

The Museum played a significant role in the success of The College of Idaho Scholarship Gala in February and later in The College of Idaho Gives Day in May. The Museum took in many donations, including cash, insect and fossil specimens and library materials throughout the year.

College student use of the Museum remains high, with the Gipson Honor Student Class being a prime example of the use and value of the Museum to education. The Museum uses student help throughout the year (including that of international students) which is very valuable to the Museum and provides experience that would not be available to most undergraduates.



(Photograph by Roxie Weber)

The Museum continues with high quality research on an international scale ranging from two of its entomologists participating in a binational, interdisciplinary biodiversity survey in Baja California Sur, Mexico, to various research projects regarding fishes, archaeology, mammals, fossils, gems and minerals and other entomology projects, including beetles, spiders, sun spiders, and the SageSTEP project, which is a collaborative experiment evaluating methods of sagebrush steppe restoration across six states in the Great Basin. Various scientific publications resulted from our work with more in various stages of progress.

Museum events included monthly Workdays (until COVID-19 shut them down), our annual fall Homecoming Event, a Valentine's Day Night Out with the Planetarium, Gem and Mineral Show Open House, and others.

Museum Work Day Seminars

July 6	Dr. Paul Castroville, “Biology and Identification of White Butterflies Found in the Boise Area”
August 3	Dr. James Ryan, “Insects and Microbes”
September 7	Dr. Luc Leblanc “Revisiting the Pacific Two Decades Later: Fruit Fly Surveys in the Solomon Islands and New Caledonia
October 5	
November 2	Dr. Eric Yensen “Coexistence of Columbian and Northern Idaho Ground Squirrels: Competition or Habitat Separation”
December 7	Gipson Honors Students “Museum Specimens and the Meaning of Things”
January 4	Dr. Don Zaroban, Fish Collection Quality Assurance — Progress made in 2019”
February 1	Bill Nance, “Archaeology of Middle America”
March 7	Nate Carpenter “Update on the Geochronology of Neogene Aquatic Biota of the Pacific North-western United States”
*April 6	Richard Salisbury. “Marine Biology: Recent Discoveries Related to Gastropods”
*May 2	Dr. Kaitlin Mcguire, “Field Work in Mongolia and Tanzania”
*June 6	Bill Clark, “Biodiversity Survey in San Basillio, Baja Cal Sur. Mexico”

*Seminars with an asterisk were postponed due to the outbreak of Covid-19. It is our hope to reschedule these presentations in the near future.

Museum Board

Dr. Barbara Ertter—Chair

Billie Ann Farley—Secretary

Jack Cafferty—Treasurer

William H. Clark—Museum Director

Josh Andersen—Student Representative

Courtney Covolo—Student Representative

Dr. Ron Bitner

Dr. Eric Yensen

Dr. Kaitlin Maguire

James Tomey

Amy Truksa

Dr. David Douglass—VP of Academic Affairs

Gipson Honor Students



Megan Dixon
Instructor

Dakota Teton
Moccasins
Ryan Hibbs

Kachina doll,
US Hopi
Peyton Badge

Zuni Heartline Arrow Deer
Pot
Josh Lazo

Sturgeon
(*Acipenser Transmontanus*)
Patrick Mark

Kachina
Hisham Sal

European Hoopoe
(*Upupaepops*)
Meg McManus

Pit Viper
(*Crotalus Scutulatus*)
Will Radko

Albino White-tailed Deer
(*Odocoileus Vrgianus*)
Keidon Reynolds

Carpenter Bee
(*Anthrophoridae*)
Ruby McCaw

Coyote
(*Canis Latrans*)
Kyler Strickler

Long-horned Bison
(*Bison Latifrons*)
Timmer Verhaegh

Rattlesnake
(*Crotalus Scutulatus*)
Carrie Vinci

Praying Mantis
(*Stagmomantis*)
Amanda Casey

Swordfish bill
(*Xiphias Gladius*)
Jacob Chambers

Trumpeter Swan
(***Cygnus Buccinator***)
Ian Clifford

Cicada
(*Cicadidae*)
Bailey Cunningham

Eurasian Kingfisher
(*Alcedatthis*)
Katya FerneyC

Black Bear
(*Ursus Americanus*)
Kyra Geissler

Yellowstone Montana Agate
(*Scenicor or Dendritic*)
Merrisa Schwartz

Scarab Beetle
(*Scarabaeus Sacer*)
Abby Guinn

Rhinoceros Beetle
(*Sinodendron Cylindricum*)
Jonah Hultberg

Swainson's Hawk
(*Buteo Swainson*)
Kaleb Lee

Great Horned Owl
(*Bubo Virginianus*)
Robyn Griffiths-Harper

Community Events

Valentine's Day Event



(Photograph provided by Misty Koeppen)



(Photograph provided by Misty Koeppen)

February 14, 2020 : The Whittenburger Planetarium and Orma J. Smith Museum hosted a Valentine's Night Out. This included access to the Museum, planetarium show, and wine from the Bitner Winery.

Water Quality Workshop

"Museum Director, William H. Clark, served as a Moderator for the 30th Annual Water Quality Workshop, held in Boise, February 11-13, 2020. Clark represents the College and Museum on the workshop shop Steering Committee. He is one of the original Committee members who helped form this Workshop and has participated in most."



(Photograph provided by Brenda Valverde Idaho Department of Environmental Quality)

Community Outreach/Involvement

OJSM is not only a place to visit, but also a place to look for answers. Community member David Corn dropped by the Museum seeking information on some specimens.



Curator Nate Carpenter was able to provide the following information for David. “These are not bone, but rather algal limestone that forms when algal growths excrete limestone, kind of like marine coral, but this is a fresh-water algal limestone. It is called the Hot Creek Algal Limestone and contains shell fossils and diatoms. It lies above the 7.4 Ma (million years) Faust tuff and below the 6.4 Ma (million years) Walcott tuff at Horse Hill near the Bruneau Hot Springs.”

Master Naturalists

The Museum is one of four sponsoring partners for the Deer Flat Chapter of the Idaho Master Naturalists, now in its fourth year. Museum staff have helped get the new chapter up and running since its inception; in 2019, graduates of previous years successfully took over the organization of the chapter. Museum curators represent the bulk of presenters for the educational program provided to all yearly cohorts of new recruits, enjoying the chance to share their expertise with an enthusiastic group eager to learn. Some members then choose to help the Museum in various ways as part of their service requirement, including curation, outreach events, grant-writing, and even serving on the Museum board.

Bill Nance, one of the curators of Archaeology, tells the new cohort of Master Naturalists about the Native American presence in southwestern Idaho, during their Museum visit on February 14.



(Master Naturalist text and photograph provided by Barbara Erter)

Community Outreach/Involvement Continued

On July 7, 2019 the Museum sponsored the 29th annual Boise Front 4th of July Butterfly Count, one of seven butterfly counts held in Idaho that year. Twenty-eight volunteers spent 8.5 hours visiting five Boise-area locations to seek out and identify 935 individual butterflies representing 52 different species. Notable data included observations of 59 Blue Coppers and 15 Great Basin Wood Nymphs. These were the highest recorded numbers of those two species from all 381 counts occurring throughout North America. All data was submitted to the North American Butterfly Association. A butterfly ID workshop was held the day before the count.



Butterfly-counters at work.



Blue Copper butterfly.

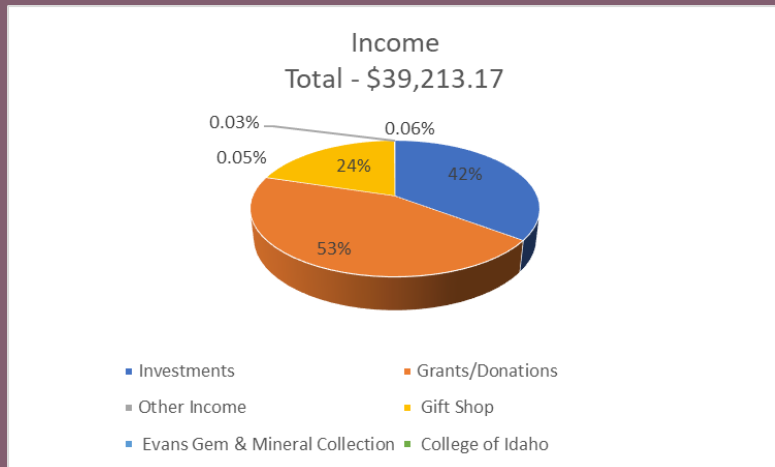


Great Basin Wood Nymph butterfly.

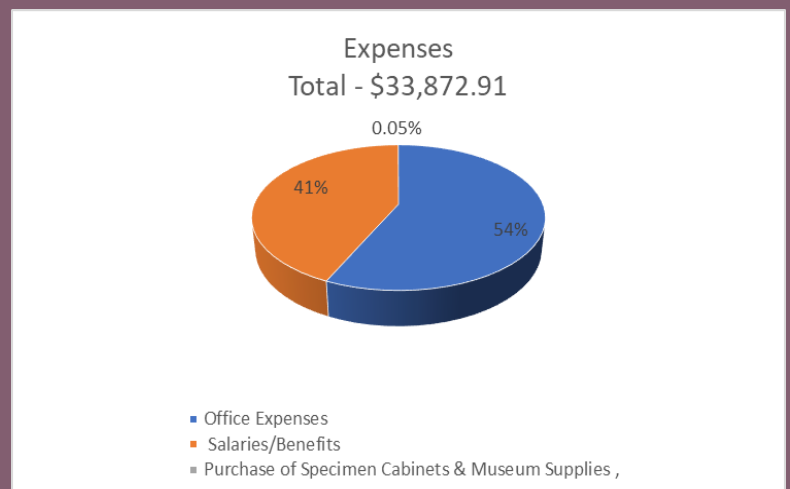
Photographs and text provided by Paul Castrovillo

Museum Financials

FY 2019 July 1, 2019 — June 30, 2020



These figures summarize the Museum's income and expenses for the 2019-2020 Fiscal Year. Donations from individuals and corporations provided most of the income. Other sources of income included financial support from the Museum's gift shop, interest from endowments, and the Evans Gem and Mineral collection and the College of Idaho.



Professional Publications

Zaroban, D. 2020. Saving the sculpin https://www.mtexpress.com/news/environment/saving-the-sculpin/article_c240cd6a-b5aa-11ea-9088-bf86e8375580.html?fbclid=IwAR0pWqYvo8lsZCcFem5T-bNJ1u8RLgYCiHSZZL0oT4g6PUj9JT9N0lyrUQE.

Huegele, I. B., Spielbauer, R. J., & Manchester, S. R. 2020. Morphology and Systematic Affinities of *Platanus dissecta* Lesquereux (Platanaceae) from the Miocene of Western North America. *International Journal of Plant Sciences*, 181(3), 324–341. doi: 10.1086/706453

Clark, W.H. Interviewed on Marfa Public Radio (West Texas)

Underfoot in West Texas, A Mysterious World of Desert Ants and Their Uninvited “Guests” originally broadcast on February 27, 2020 <https://marfapublicradio.org/blog/nature-notes/underfoot-in-west-text-a-mysterious-world-of-desert-ants-and-their-uninvited-guests/>

Clark, W.H. 2020 San Basilio Biodiversity Survey

<https://docs.google.com/spreadsheets/d/1Kg5Zi38NslrmcHGI8Sm0T27DXR790UC9lwVdWUH5LcU/edit?usp=sharing>

New Face In The Museum



October 1, 2019 brought a new face to the Museum, Misty Koeppen. Misty holds a Bachelor’s Degree in Elementary Education from the University of Nevada Reno. She also holds a Master’s degree in Educational Leadership and Reading Specialist from Northwest Nazarene University. Before joining the Museum, Misty was a classroom teacher for 22 years, teaching all grades Kindergarten through 6th grade.

“ From the day of my interview I was made to feel a part of the Yote Fam. A true team mentality. The culture at C of I and in the Museum has been, “We are more as a group than on our own.” Great to feel welcome from the first day.”

Volunteer Hours

7,250 hours

Fiscal Impact

\$197,200.00

Field Work

Social Distancing while in the field at Slate Creek



Left to right: Dave Ward, Richard Salisbury, Dr. Al Gillogly

(Photograph and text provided by Dave Ward)

Slate Creek Idaho

A snail-eating beetle that lives in damp environments describes the genus *Scaphinotus*. Collecting *Scaphinotus* was the primary objective of a May 27-29, 2020 field trip to Slate Creek, ID near Riggins with Museum Curators Dr. Alan Gillogly, Richard Salisbury and Dave Ward. Al had found one specimen on a previous trip and, after collaboration with James (Jim) LaBonte, an expert in this group, spearheaded a return trip to include Jim as well as our curators. Unfortunately, Jim had to cancel at the last minute but our intrepid curators decided to carry on. It was certainly a “unique” trip due to coronavirus. We did drive separately from the Boise area and did our best to maintain good social distancing while in the field (see photo!)

The group didn't find any of the snail-eating beetle that we were seeking but did find other interesting insects including some relatives of *Scaphinotus* and another beetle from a different family, *Melasis rufipennis* Horn. This beetle is apparently rare but we happened to be at the right place at the right time so there were quite a number of them on a tree right in our campground! We're currently coordinating final identification with Dr. Robert Otto from the Univ. of Wisconsin at Madison. This trip was a great ex-

San Basilio, Baja California Sur, Mexico

Museum Director, William H. Clark, and Entomology Volunteer, Mary Clark were invited to participate as entomologists in a binational and multidisciplinary biodiversity study in Baja California, Sur, Mexico During early December, 2019. The objectives were to document the biodiversity (terrestrial and marine) of this minimally impacted area. The Clarks collected and documented 191 invertebrate species



San Basilio area, north of Loreto, Baja California Sur, Mexico. Coastal habitats including dunes and mangroves are shown here.

(Photograph and text provided by Museum Director Bill Clark)

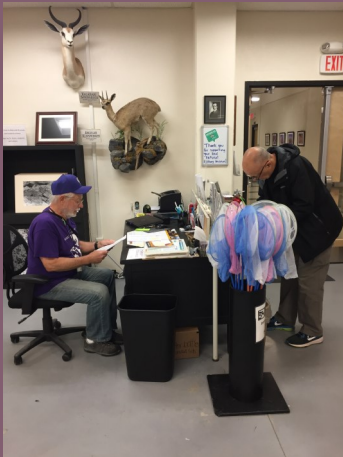


Example of the inland Central Gulf Coast Desert habitat that was the focus of much of Bill and Mary's collecting. (Photograph provided by Bill Clark)

Donors

Bitner Vineyards, Dr. Peter L. Comanor, Dr. Gerald R Smith, Dr. Paul E. Blom, Gwen A. Hoheisel, Dr. Ralph Stearley, Dr. Robert F. & Beth Graves, Dr. Sean Farley, Christian Gingerich, Don & Judith Haagensen, Jesus Tarifa, Michelle Wooten, Michael & Carol Prentice, Richard & Judy Rogers, Robert & Marcia Beckwith, Simon & Richard Boycott, Misty Koeppen, Stephen & Loreli Bouffard, Danielle Lewis, Kenneth & Elizabeth Dickey, Jane Luther, Luana McCauley, James & Lynn Kobylecky, Roberta Johnson, Alfred & Marjorie Koenig, Rex & Rebecca Hanson, Ellen Clark & Robert Gerber, Stephanie M. Vaughn, Dr. Barbara Ertter, Dr. Craig Baird, Fidelity Charitable Gift Fund, Alan & Patricia Gillogly, Ann Deboit, Roger Rosentreter, Karen D. Clark, L. Leigh Wiemann, Patricia Matthews, Rev. David A. & Peggy Schneider, Don Zaroban, Howard & Irene R. Bundy, Dr. James McIver, Oregon State University, Dr. Robert M. Ellis, William H. & Mary E. Clark, Billie A. Farley & Stephen P. Smith, David M. & Valerie A. Ward, Diana M. Dron, Dale & Jane Luther.

The month of March brought with it a substantial donation of scientific journals for the Museum Research Library. Roxie and Melvin Weber met Bill Clark to drop off a portion of the donation from Nancy Smith Weber. Nancy is the granddaughter of Orma J. Smith



Bill Clark (seated) and Marv Weber completing donation paperwork.

(Photograph provided by Roxie Weber)



The photograph above is of Nancy Smith Weber (seated on the right) and Marge Smith Arighi. (seated on the left) The photograph was taken on Nancy's 77th birthday on March 12, 2020. Nancy and Marge are granddaughters for Orma J. Smith.

(Photograph and text provided by Roxie Weber)



Bill Clark unloading boxes of scientific journals donated by Nancy Weber.

(Photograph provided by Roxie Weber)

Spring Break to Outbreak

March not only brought Spring Break, but also the outbreak of Covid 19. Although the Museum was closed to the public, the day to day operations continued, just from a distance. The Museum's face to face activities had to be put on hold, but the community and supporters stood strong and came to the call for donations. Those donations not only included financial support, but additions to the research library, specimens for future exhibits and supplies. We would like to thank everyone who contributed to the continued success of the Museum. In the words of Dr. Seuss from *The Lorax*, "It's not about what it is, it's about what it can become." With that in mind, there is a bright future for what the Museum can become.

Coming Attraction! Badger Exhibit Planned for Museum



A new exhibit on badgers is planned for the Museum, according to Curator of Mammals, Dr. Eric Yensen.

The taxidermy of the badgers is complete, and actual exhibit construction can begin as soon as an appropriate display case is built. "We had planned to have it done in September, but the virus has slowed progress. We are still moving forward," Dr. Yensen explained. "The taxidermist did a great job of mounting the specimens (see photo above), and he has agreed to do the interior of the exhibit for us. It will be a sagebrush habitat complete with a badger burrow."

Badger specimens for the display.

Among other things, the exhibit will explain:

- If the coyote is The College of Idaho's mascot, why is the badger the Museum's mascot?
 - Why are badgers important in ecosystems?
- How do badgers change soil properties? Can badgers control ground squirrel populations?

"We hope the display will be ready for the 'Night at the Museum' Homecoming event this coming fall [2021]," Yensen continued. And, we hope the event will be in-person rather than virtual!"

Mission Statement

The Orma J. Smith Museum of Natural History seeks to instill an awareness of the natural world through the educational program of The College of Idaho, provide public service, and serve the general and research public by holding in trust collections of zoological, botanical, paleontological, archaeological, anthropological, and other natural history objects for this and future generations. The Museum adds depth and intellectual development to the education of College of Idaho students by making the materials entrusted to it available for classroom, research, and other appropriate educational use. The Museum serves the students and general public by offering tours, interpretive displays, and other educational programs that foster life-long learning by all who visit.

Vision Statement

The Orma J. Smith Museum of Natural History will be the premier collections-based environmental education and natural history resource in our region. The Museum's programs and resources will be integrated into the educational programs of the College to help meet the needs of College of Idaho students and provide outreach to the general public.

Museum Staff

William H. Clark—Museum Director

Misty Koeppen—Museum Administrative Assistant (October 1, 2019—Present)

Follow us on social media:

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