



ORMA J. SMITH MUSEUM OF NATURAL HISTORY
2019 ANNUAL REPORT



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.

2019 Annual Report

Produced by Orma J. Smith Museum of Natural History

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Cover: Azurite with Drusy Crystals; Evans Gem and Mineral Collection

Photos left to right: Curator of Birds, Stephen Bouffard; center: Pale Swallowtail; right: Curator of Entomology Craig Baird, and Museum Director Bill Clark, with entomology student Ketzaly Munguia Ortega from CICESE Museo in Ensenada Baja California, Mexico.

Editor: Misty Koeppen

Our Board

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President

Billie Ann Farley,

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Jack Cafferty,

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Museum Director

Dr. Ron Bitner

Dr. Rochelle Johnson

Dr. Chris Walser

Dr. Eric Yensen

Kaitlin Maguire

Leigh Wiemann

Randy Whipple

Josh Andersen

Student Representative

Courtney Covolo

Student Representative

Our Staff

William Clark, *Museum Director*

Danielle Lewis, *Museum Assistant (February 2018–August 2019)*

DIRECTOR'S MESSAGE

Welcome to the 2019 Annual Review of the Orma J. Smith Museum of Natural History. This review is not all inclusive, but points out many of the activities happening in the Museum. It is the only natural history museum in the region encompassing southwestern Idaho, southeastern Oregon and northern Nevada. The Orma J. Smith Museum of Natural History is the premier resource for environmental and natural history education in the region.

This year the Museum has had the opportunity to be open to the public Monday through Friday from 1:00-5:00. Having the ability to do this has substantially increased visitation to the museum by college students and the general public. We have also seen an increase in cash donations and sales in the Gift Shop, providing more exposure and flexibility for the Museum.

Much of the year was spent hosting meetings and workshops, as well as assembling draft materials needed to continue creating and finalizing the Museum's 5 year strategic plan, which is compatible with the College of Idaho's strategic plan.

The main focus of the Museum continues to be collecting and identifying specimens, as well as research. Our Curators are known on the national and international stage due to the research being conducted in the Museum. Use of the museum by college students and staff has increased to approximately 20%.

Special Notice: This year marks the 40th Anniversary of the Museum's dedication. We would like to extend an invitation to you to celebrate this milestone with us. The celebration will be on September 25 in conjunction with the College's Homecoming and Parents weekend.

William H. Clark, Director



MEET THE CURATORS

Kaitlin Maguire—Paleontology

Patrick Fields—Paleontology

Howard Emry—Paleontology

Nate Carpenter-Paleontology

Eric Yensen—Mammalogy

Richard Salisbury—Mollusca

Stephen Bouffard—Ornithology

Gerald Smith— Paleontology

Donald Zaroban— Ichthyology

Allan Gillogly—Entomology

Paul Blom—Entomology

Stephanie Shank—Entomology

Craig Baird—Entomology

David Ward-Entomology

William Nance-Ethnography

Jan Summers Duffy— Archaeology, Egyptology

Dawn Janney—Minerology

Paul Castrovillo—Lepidoptera

William Clark—Invertebrates

Chris Walser—Ichthyology

James Ryan—Entomology

Amy Dolan—Entomology

Ding Johnson—Entomology

Barbara Ertter—Botany and Paleobotany

IMPACT

BY THE NUMBERS

5,750 visitors to the museum

5 school groups **1** scout group **5** community groups

360 students from The College of Idaho

including classes, work study students, interns, and volunteers

25 Art Students sketched in the Museum

VOLUNTEERS DONATED **7,050 HOURS**

Economic impact of volunteer hours is

\$146,222.5 (per independentsector.org)

13 experts presented public seminar topics

MUSEUM APPRECIATION EVENT



July 22, 2018: David and Lily Douglass provided the food and beverages, Billie Farley and Steve Smith provided the location. (Photo provided by Howard Emry)



COLLECTIONS BY THE NUMBERS

~ 1,722,271

TOTAL SPECIMENS & ARTIFACTS

1,300,800 Insect Specimen

13,000 Mollusk Specimens

21,000 Other Invertebrate Specimens

86,750 Cataloged Fish Specimens

542 Cataloged Amphibian Specimens

1,000 Bird Specimens

3,020 Mammal Specimens

130,000 Fossil Specimens

125,000 Fossil Plant Specimens

5,300 Cultural Artifacts

31,050 Research Library Holdings

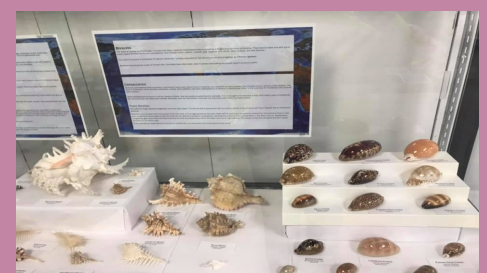
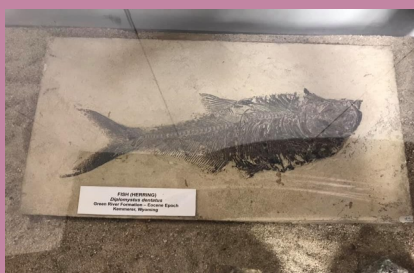
>3,500 Uncatalogued Fish Specimens

>654 Uncatalogued Amphibian Specimens

> 655 Uncatalogued Reptile Specimens

New Discoveries — One new beetle genus: Bill and Mary Clark collected a new genus of darkling beetles (Tenebrionidae) in the northeastern part of Baja California Norte (BCN). The new species is still only known from a single specimen, which will soon be formally described by a specialist familiar with the BCN representatives of that family.

One new genus of Rhachiberothidae (Insecta: Neuroptera). The name is *Rhachiella malwica*. Discovered by James Ding Johnson and his Swiss colleague, Dr. Peter Duelli.





IDAHO HAS FIREFLIES?

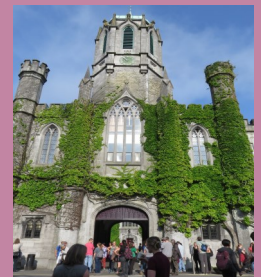
Fireflies, also referred to as Coleoptera: Lampyridae in the USA are generally assumed to be a spectacle restricted to areas east of the Rocky Mountains. However, there are a few species of these beetles known from the western U.S. Very few people, even among Idaho residents, are aware fireflies can be found in Idaho. The museum's insect collection has about 35 specimens from only four collecting events in the area near the Snake River in the southern part of the Idaho. They appear to belong to a single species, and may be related to a species that is widespread in Utah. The flashes of these beetles are obvious and should be easily spotted at night, so we believe these fireflies may only be in small, possibly scattered populations.

The intent of the firefly survey is to gather both historical and current reports of sightings, determine if there is more than one species in Idaho and document distribution and life history of the species, and collect a limited number of voucher specimens. Idaho Fish and Wildlife has granted the museum a research/collecting permit for this project. (Information provided by Alan Gillogly, Curator of Entomology/Research Assistant)

COUNTRIES COME TOGETHER TO STUDY SQUIRRELS

Curator Eric Yensen and research assistant Teresa Tarifa attended The International Colloquium on Squirrels in Ireland. The week of conferences ended with a field trip. The photo to the right shows some of the conference attendees waiting for the field trip buses in front of the administration building of the National University of Ireland. There were about 100 biologists who study squirrels at the conference. They came from Japan, China, Russia, Finland, Poland, Serbia, Bulgaria, Italy,

Germany, Belgium, Netherlands, England, Scotland, Ireland, Algeria, Australia, Canada, US, and Bolivia. Conference participants were taken on a field trip to Moore Hall Woods, one of the few places in western Ireland with native squirrels! Moore Hall in the background was burned during the Irish revolution and never rebuilt. Forests on the property have a population of the rare native red squirrel. (Photo provided by Eric Yensen)



HOMECOMING

Held in early October, the Museum participate in a number of Homecoming activities. The Annual Night at the Museum featured a synopsis of Alaskan biological research from: "selfie" bear videos to solving urban wildlife conflicts with genetics; a talk by Alaskan bear biologist Dr. Sean D. Farley. ('79). Research Associate at OJSM.

CURATOR'S CORNER

Orma J. Smith Museum of Natural History's French Connection

On June 20, 2019, the Musee des Confluence in Lyon, France opened an exhibit titled, Mini-monsters, the invisibles. The exhibit invites children and adults to step into the shoes of a scientist, who uses a microscope to reveal the mysteries of this tiny world. Included in the exhibit is a Navajo sandpainting by Luther Douglas that is permanently housed at The College of Idaho. The Musee requested use of a sandpainting that included an abstract of a fly or dragon fly. The painting, Home of the Buffalo People, selected by Archaeology curator, Jan Summers Duffy. The exhibit is on view in France until October 5, 2020.

NIGHT AT THE MUSEUM
THE BEAR NECESSITIES

Friday, October 5, 2018
7:15PM—9:00PM
Boone Science Hall, Room 103

Featuring *A synopsis of Alaskan biological research: From "selfie" bear videos to solving urban wildlife conflicts with genetics; a talk by Alaskan bear biologist, Dr. Sean D. Farley ('79)*

Join us for our annual awards, lecture, dessert, and museum tours. A Silent Auction will be available throughout the day.

Orma J. Smith Museum of Natural History at The College of Idaho
202 Cleveland Boulevard, Caldwell, Idaho 83605
Located on campus of Boone Science Building, 208-404-6500

GIPSON HONOR STUDENTS

College of Idaho students in a First-Year Seminar course titled "Thinking About Things" worked closely with a specimen from the Orma J. Smith Museum of Natural History, researching deeply the various ways in which the specimen had meaning—to humans through time and in various cultures, to commerce or economics, to religious or spiritual thought, to architecture or household use, to ecology or chemistry, to industry or aesthetics. The students projects can be viewed at <https://whenyoulook.wixsite.com/yousee/thinking-thruu-things-2018>.

STUDENT PROJECT EXAMPLES:

Christopher Truksa chose to research rose quartz. During his research he found, "In society the rose quartz has a mystic and metaphysical character, in the sciences its origins and properties are cloudy, and its role in the future of the environment is unclear."

Lucas Thorne chose an artifact a little closer to home, The Hagerman Horse. The Specimen in the Orma J. Smith Museum of Natural History originated from the Hagerman Horse Quarry in Hagerman, Idaho. Discovered in 1928 by local rancher Elmer Cook, the quarry was excavated by James W. Gidley starting in 1930. He went on to find several full skeletons of Hagerman Horses along with hundreds of partial samples. It is still not known why such a large concentration of Hagerman were found at the Quarry, though leading theories include climate change, drought, and flood. Whatever the reason, the Hagerman Horse Quarry stands as a source of great intellectual wealth for researchers and as a reminder to us all that life doesn't last forever.



Rose Quartz Photo by: <https://historical.ha.com>

Hagerman Horse Photo by: <https://historical.ha.com>



Photos from left to right: Luther A. Douglas "Home of the Buffalo People" (1919-1976), Stone balls from OJSM's Great Basin collection, black obsidian knife from the Warm Springs site- most relevant to Idaho Western Burial Complex. (Photos provided by Jan Summers Duffy)



EXAMPLES OF WORK HAPPENING IN THE MUSEUM



Left : Regan Moore Intern in Archaeology. Right : Ryan Hibbs— Intern in Archaeology and Gipson Honor Student, examining North American moccasins for his research project.

(Photos provided by Jan Summers-Duffy)



MUSEUM HOLDINGS

- The Orma J. Smith Original Teaching Collection (Paleontology)
- Helen V. Smith Fossil Leaf Collection (Paleobotany)
- The College of Idaho Fossil Collection (Ichthyology)
- The Bake Young Fossil Leaf Collection (Paleobotany)
- Fossil Fish Collection (Ichthyology)
- Gates-Lewis SW Native American Collection (Archaeology)
- Huntley Native American—Great Basin Lithic Collection (Archaeology)
- Egyptology Collection (Archaeology)
- Bratz Mexican Plant Collection (Botany)
- Mycology Collection (Botany)
- Cryptogams (Botany)
- Seeds (Botany)
- Baja California, Mexico Collection (Entomology)
- SageSTEP Collection (Entomology)
- Idaho State Fish Collection (Ichthyology)
- University of Idaho Fish Collection (Ichthyology)
- Montana Fish Collection (Ichthyology)
- Leanora Nance– Central/South American and Indonesian/Bali Collection
- SW Idaho, Beal Native American Collection (Archeology)
- Ruth Meade Basketry Collection (Archeology)
- Evans Gem and Mineral Collection (Geology, Paleontology)
- Mineral Collection (Geology)
- Van Devender Collection (Geology)
- LaRivers Collection (Research Library)
- Idaho Aquatics Collection (Invertebrate Zoology)
- Snake River Mollusks/Snails Collection (Invertebrate Zoology)
- Mammal Collection (Mammalogy)

BUILDING RELATIONSHIPS WITH OUR SISTER MUSEUM

MUSEO DE ARTRÓPODOS DE CICESE



William H. Clark giving a presentation on "50 Years of Entomology in Baja California" to the Discover Baja group of about 200 people in San Felipe on January 25, 2019. Clark was invited to present along with two other Mexican scientists.

William H. Clark teaching a section of an entomology class at the CICESE Museo in Ensenada on May 6, 2019. Shown are students Victor Aguilera and Farid Zavala along with instructor and Museo Collections Manager, Dr. Fadia Sara Ceccarelli. (Photo by Enrique Zamora).



Bill and Mary Clark hosted CICESE students including Ketzaly Munguia Ortega and research technician Eulogio Lopez at their home and a study site near San Felipe. Ketzaly was researching the spatial and temporal distribution, richness and abundance of the Calliphoridae (Diptera) in Baja California, Mexico.

Ketzaly Munguia Ortega and Museum Director, William Clark, work on identification of the Calliphoridae (Diptera) in the Museum's collection, February 22, 2019. In addition, Ketzaly donated over 1,000 specimens of Diptera to the Museum Collection. Ketzaly was able to see and play in her first snow on this trip.



MUSEUM VISITORS—2019 OWYHEE GEM AND MINERAL SHOW

Left to right: Matt Werranga, Gerald Smith, Paul Link, Wayne Lewis, Don Zaroban (Photo provided by Nate Carpenter).

ACADEMIC PUBLICATIONS

- Summers Duffy, J. The Headrests of Tomb KV62 – Tomb of Tutankhamun -Pillows For A King. European Scientific Journal.
Summers Duffy, J. Khasekhemwy The Unifier”; (final king of the Second dynasty of Egypt who led significant military campaigns and built the mudbrick fort known as Shunet El Zebib. Journal of Ancient Civilizations.
- Duffy, J. (n.d.). The Warm Springs Site, Relevance to the Western Idaho Burial Complex and Significant Artifacts
OJSmith Museum/College of Idaho. Retrieved from <https://www.academia.edu/9878154>
- Yensen, E., B.M. Shock, T. Tarifa, and D. Evans Mack. 2018. Forbs dominate diets of the threatened endemic northern Idaho ground squirrel (*Urocitellus brunneus*). Northwest Science, 92(4) : 290-310.
- Munguia Ortega. K.K. 2019. Distribucion, riqueza y abundancia espacio temporal de la familia Calliphoridae (Diptera) en Baja California, Mexico. Tesis, Maestria en Ciencias, CICESE, Ensenada. 89 pp.
- Bouffard, S.(n.d.) Quarterly Report for the National Federation for the Blind, Idaho Chapter, Boise.
- Clark, W.H. 2018. Entomological Investigations of select insect species, primarily desert ants, in Big Bend National Park, Texas. Investigator’s Annual Report, National Park Service, Permit #BIBE-2015-SCI- 0042. 3 pp.
- Clark, W.H. 2019. Entomological Investigations of select insect species, primarily desert ants, in Big Bend National Park, Texas. Investigator’s Annual Report, National Park Service, Permit #BIBE-2019-SCI-0004. 3 pp.
- Fields, Patrick F. 2018. Plant Species Identified (in the Haw Creek Flora, Chalk Hills Formation, Northeast Emmett Quadrangle, ID).

MONTHLY SEMINAR TOPICS

- July 7 Dr. Paul Castrovillo, "White Butterflies Which Might Be Seen on the Boise Front (... or not ...)"
- August 4 Dr. Pat Fields, "A Look at the Evidence for Climate Changing Throughout Time"
- September 8 Dr. Luc Leblanc "Surveys of Fruit Flies in Bangladesh and Nepal"
- October 6 Dr. David Douglass "Status of the College"
- November 3 Dr. Eric Yensen "Why Rodents Matter: Ecological Roles of Shrub Steppe Rodents"
- December 1 Ross Winton "The Value of Collections in the Conservation of Rare Species"
- January 5 Steve Bouffard "Bird Brains" (Also provided 3 presentations at the Othello Sandhill Crane Festival in March)
- February 2 Bill Clark "50 Years of Baja California, Mexico, Entomology"
- March 2 Nate Carpenter "Tertiary Tectonics and Drainage Patterns in the Pacific Northwest"
- April 6 Dr. Barbara Ertter "Yukon Botany: Bennett’s BABY, Canadian Oil, and of course Potentilla"
- May 4 Dr. Rochelle Johnson "Transatlantic Origins of American, Environmental Thought"
- June 1 Howard Emry "Oligocene Fossil Flora in Creede, Colorado"



F.Y. 2019 FINANCIALS—JULY 1, 2018—JUNE 30, 2019

MUSEUM

| | | |
|------------------------------|--------------------|--------------------|
| BEGINNING BALANCE | 42,642.92 | |
| REVENUE | FY19 | FY18 |
| ENDOWMENT/TRUST DRAW | (14,912.64) | (11,424.83) |
| GIFTS | (29,655.00) | (31,814.17) |
| OTHER INCOME | (4,301.32) | (2,688.67) |
| Total Revenue | (48,868.96) | (45,927.67) |
| SALARIES | | |
| Total Salaries | 13,439.86 | 13,152.11 |
| EXPENSES | | |
| OFFICE EXPENSE/DEPT SUPPLIES | 8,726.53 | 21,353.43 |
| POSTAGE EXPENSE | 556.60 | 469.95 |
| PRINTING | 660.33 | 475.77 |
| ADVERTISING/PROMOTIONAL | 0.00 | 0.00 |
| BOOKS | 496.20 | 1,134.91 |
| EQUIPMENT PURCHASES | 20,393.01 | 15,220.95 |
| PROFESSIONAL SERVICES | 65.00 | 2,906.80 |
| TRAVEL/EDUCATION EXPENSE | 126.75 | 51.75 |
| MEALS/ENTERTAINMENT | 610.25 | 45.25 |
| MEMBERSHIPS | 835.00 | 525.00 |
| OPERATIONS & MAINTENANCE | 1,475.00 | 210.86 |
| INTDT TRANS COPIER CHARG | 851.62 | 248.25 |
| INTDT TRANSFER | -13.32 | 0.00 |
| TOTAL EXPENSES | 34,782.97 | 39,211.12 |
| ENDING BALANCE | 14,085.99 | 6,716.55 |

DONORS

Up to \$250

Stephanie M. Vaughn, Lu-
ana M. McCauley, Jack and
Ashley Cafferty, Allan Laird,
Danielle Lewis, William
Nance, Jesus Tarifa,
Michelle Wooten, Edith Dull,
Ron and Mary Bitner, Cyn-
thia Clark, Amelia Dolan,
Don and Judith Haagensen,
Kaitlin Maguire, Donald
Nelson, Leland and Glenda
Thames, Horace and Barba-
ra Belnap, Barbara Erter,
Sean Farley, Robert and
Beth Graves, Mary Higdom,
Gary Johnson, Roberta
Johnson, Dale and Jane
Luther, Richard and Judy
Rogers, John and Betty Sig-
ler, YourCause LLC, Ste-
phen and Loreli Bouffard,
Peter Comanor, Rochelle
Johnson, Jennifer and
Shane Sampson

\$251– \$500

Richard and Dianne Salis-
bury, Carolyn and Dan
Bridges, Jane Houston, Bit-
ner Vineyards, Rebecca and
Rex Hanson, Leigh Wie-
mann, Alan and Patricia
Gillogly

\$501–\$1000

Diana Dron, Daniel and
Lynette Anderson

\$1001+

Billie Farley, Stephen Smith,
David and Peggy Schneider,
Idaho
Power Foundation, Inc, Valerie
and David Ward, Robert Ellis,
William an Mary Clark, Paul
Blom, Gwen Hoheisel, Russell
Biggam

*Remaining balances are nor-
mally encumbered for later in
the year, therefore they roll over
to the next year.

*Evans records do not reflect
the endowment fund.

GIFT SHOP

| | | |
|------------------------------|---------------|---------------|
| REVENUE | FY19 | FY18 |
| OTHER INCOME | 946.24 | 213.92 |
| Total Revenue | 946.24 | 213.92 |
| EXPENSES | | |
| OFFICE EXPENSE/DEPT SUPPLIES | 0.00 | 53.40 |
| BOOKS | 0.00 | 0.00 |
| Total Expenses | 0.00 | 53.40 |
| TOTAL PROFIT/LOSS | 946.24 | 160.52 |

Evans Gem & Mineral Collection

| | | |
|------------------------------|-------------------|-------------------|
| REVENUE | FY19 | FY18 |
| OTHER INCOME | (983.30) | (811.33) |
| Total Revenue | 946.24 | 213.92 |
| EXPENSES | | |
| OFFICE EXPENSE/DEPT SUPPLIES | 0.00 | 53.40 |
| BOOKS | 0.00 | 0.00 |
| Total Expenses | (3,983.30) | (9,100.00) |

BUTTERFLY COUNT



Long-time Curator of Lepidoptra (butterflies and moths), Dr. Paul Castrovillo, leads the Boise Front 4th of July Butterfly Count, one of the longest-running in the country. For the 28th consecutive year butterfly experts, as well as interested amateurs came together to survey the butterfly fauna in the Boise area. The participants surveyed diverse habitats ranging from Military Reserve Park at an elevation of 2,500 ft to the summit of Mores Mountain at about 7,000 ft. After 8 hours of butterfly-hunting a total of 1,365 individual butterflies were recorded representing 48 different species, nearly one third of the species known from Idaho. Data was shared with the North American Butterfly Association to be archived with survey results from approximately 400 other counts around the US, Canada and Mexico.



(Photos and text provided by Paul Castrovillo)

