



Inspire! Grants for Small Museums

Sample Application MA-35-19-0117-19
Project Category: Collections Stewardship and Public Access

Jurica-Suchy Nature Museum, Benedictine University

Amount awarded by IMLS: \$50,000
Amount of cost share: \$28,727

Attached are the following components excerpted from the original application.

- Abstract
- Narrative
- Schedule of Completion

Please note that the instructions for preparing applications for the FY2020 Inspire! Grants for Small Museums grant program differ from those that guided the preparation of FY2019 applications. Be sure to use the instructions in the [FY2020 Notice of Funding Opportunity](#) for the grant program and project category to which you are applying.

Abstract

The Jurica-Suchy Nature Museum (JSNM) at Benedictine University (BU) is requesting \$50,000 to support the two-year project entitled *Safeguarding Our Specimens (SOS) Improving Research Collections Stewardship of the Jurica-Suchy Nature Museum*. As the only University natural history museum in northern Illinois, JSNM serves over 23,000 patrons each year through education and outreach programs, guided tours, student research opportunities, and community events. This project will provide storage improvements for 150 square-feet as well as online access to the restricted access research collection of 4,500 specimens.

The collection currently faces several challenges we would address through the SOS project. Conservation Assessment Reports were completed in 1995 and 2008. These assessments identified several aspects of improvement that the museum has been striving to achieve. However, due to the size of the collection and funding constraints, these projects have yet to be fully realized. As guided by the Assessments, the research collection in storage needs improvements. This project aims to address the following improvements 1) upgrading storage cabinets to increase efficiency of storage capacity, 2) complete the inventory of the research collection, 3) complete condition reports, and update the database to include this information as well as updated location information for each specimen, and 4) making the database of the research collection available to the public, including classroom utilizing the JSNM Discovery Box Loan Program. This program alone serves over 11,000 people per year.

Over a two-year period, the collections improvements aim to improve the organization of the collections storage, to verify and update the information within the database, to make the database accessible to the public, as well as to modernize and enhance the collections storage space. The museum director (Karly Tumminello) will oversee the project and will supervise a part-time collections manager. This project will also include a training component to involve undergraduate BU student interns to assist with conducting the inventory and updating the collections database. This component will address the museum's continued commitment to education and outreach by involving interns in hands-on learning opportunities that are open to students from diverse disciplines and backgrounds.

This project will make this important and otherwise not accessible material available to researchers, students, and the public. A detailed index of the specimens will be available to review, along with catalog records and online images. The Jurica-Suchy Nature Museum and Benedictine University will benefit by using the museum improvement to engage and educate the community as well as our students.

The SOS project's chief intended outcome is to enhance the museum's ability to uphold best practices of collection stewardship and to improve the long-term preservation of the collections. This will allow for greater accessibility of the collections for research engagement, as well as to allow the museum staff greater ability to access and utilize the collection for public programs, workshops for professionals, website information, and development of publications. An outcomes-based evaluation plan will be developed by the SOS project director to include quantitative and qualitative metrics tied to the intended results. This evaluation plan will include a comprehensive schedule for the inventory, including timeline goals for numerical progress of inventory and data entry of object records. Project staff will create detailed progress reports, and will meet monthly to assess progress and facilitate adjustments to the project timeline as needed.

Narrative

Project Justification

The Jurica-Suchy Nature Museum (JSNM) is seeking \$50,000 from the IMLS Inspire! Grants for Small Museums program to support a two-year project entitled *Safeguarding Our Specimens (SOS) Improving Research Collections Stewardship of the Jurica-Suchy Nature Museum*. This project will demonstrate best practices in collections stewardship and improve the long-term preservation of, and access to the collections. Following the standards for collections stewardship as established by the American Alliance of Museums, the JSNM must address issues of collections storage and improve access to the collections. The SOS project will serve to alleviate overcrowding and far-from-ideal storage conditions and ensure the entire research collection is thoroughly entered into the museum database, allowing for greater physical and intellectual access of the collections.

Currently the storage room, which houses the portion of the research collection containing fossils, eggs, and charts, is equipped with aged metal storage shelves. This presents a challenge to the safety and integrity of the specimens occupying this space and does not allow for proper access and cataloging of these specimens. This project aims to address the storage issue by replacing the current inadequate shelving with a space saver fixed shelving storage solution. The new range of static shelving, which will have neutral coatings that are non-reactive to the specimens, is designed to double the capacity for the fossil boxes in that space and allow appropriate storage and access to the specimens. Once the storage issue is resolved, and museum staff are able to access the specimens, an entire updated inventory will be completed. The JSNM will hire a part-time collection manager to address the inventory database needs in order to make the completed inventory of the research collection fully accessible to the public for the first time.

The need for improvement to collections stewardships has been a challenge the museum has been working on for decades. Catharine Hawks, conservation specialist for the Smithsonian's National Museum of Natural History, served as the Conservation Assessment Program (CAP and Re-CAP) reports assessor for the JSNM. She first assessed the museum in 1995, and then returned in 2008 (executive summaries for both assessments are included in the application documents). In the 2008 Re-CAP report, Hawks notes, "a critical issue for the collections is the overarching lack of adequate and appropriate space – for collections storage and for collections processing." Hawks specifically recommends to "continue the effort to create an electronic catalog of the collections, image the collections, and update inventories." The SOS project will address these issues directly.

This project will make the research collection available to researchers, students and the public. The research collection is an important subset of the overall collection as it has the most complete scientific information and valuable research information. Because of these aspects, it cannot be accessible through JSNM's established education and outreach programs, as it must have restricted access to preserve the collection. Achieving the goals of the SOS project would allow this collection, via photographs and catalogue information, to be accessible for the first time as an additional resource to the public, including classrooms already using our Discovery Box Loan Program, which serves an audience of over 11,000 people per year. The online catalog will enable access to the research collection to audiences who have never before had access. A detailed index of the specimens will be available to review, along with catalog records and online images. The JSNM and Benedictine University will benefit by using the museum improvements to engage the community and educate our students. As indicated by the letters of support included in the supporting documents, this project is fully supported by the Dean of the College of Science at Benedictine University as well JSNM Advisory Board.

This project is an important step in meeting the museum's strategic plan goals and directly ties to the museum's strategy statement to further the museum's mission of education in the life sciences and will provide the scientific community and the public access to the collection. Ultimately, the SOS project enables the JSNM to provide adequate housing for the research collection, improve accessibility of these resources to serve a wider audience, provide hands-on museum training to undergraduate students, and strengthen the museum's role as stewards of the collection and provide public access to the collection.

Project Work Plan

The Jurica-Suchy Nature Museum's SOS project involves four major functions: 1) upgrade the storage of the fossil collection, egg collection, and the Jurica Biology Charts; 2) verify and update the database with the inventory of the research collection; 3) complete condition reports and photograph the specimens of the research collection, in conjunction with the inventory process; 4) launch a website with the searchable database to increase access to the museum collection.

First, the storage for the fossil and egg collections, as well as for the Jurica Biology Charts will be addressed and upgraded. New, larger, museum-quality shelves will replace the current shelving in storage room Birck 014. Currently, the egg collection (48 boxes) and a portion of the fossil collection (60 boxes) are stored in Ricker boxes stacked on top of the collections cabinets in storage room Birck 013. The other portion of the fossil collection (100 boxes) is stored in Ricker boxes on shelving in storage room Birck 014. This shelving unit is small and does not allow for efficient placement of the boxes on the shelves. With a new shelving unit, the boxes will fit more efficiently on the shelves and all of the fossil and egg collections will be able to be stored in storage room Birck 014. In addition, the Jurica Biology Charts will be upgraded from the original wooden hanging clamps and stored in a flat file storage system.

To complete this task, the project director will work with the vendor, Bradford Systems, to order the new shelving and flat file storage. Bradford Systems is the desired contractor for this job as they have over 40 years of experience specializing in storage solutions and serve an extensive clientele including museums. Their quote for the storage solutions is included with this proposal.

The specimens in storage room Birck 013 (60 fossil boxes, 48 egg boxes, and the Jurica Biology Charts) will be removed and placed in temporary storage in the Museum Annex, Birck 219. Moving these specimens presents a potential risk to the integrity of the specimens. The egg collection is especially fragile and most of the specimens date to the late 1800's. The fossil collection is very heavy, which presents its own challenges in handling and moving them. Special care and attention will be exercised to ensure all of the specimens are handled properly and are kept in separate areas to avoid potential specimen damage. These specimens are already stored in Riker boxes and are clearly labeled, and all of the Jurica Biology Charts are housed on a mobile hanging rack. We hope to mitigate the risks by using techniques recommended by the Science Museum of Minnesota in their book *Moving the Mountain*. Tracking procedures will be adhered to ensure all specimens are accounted for during this move to and from temporary storage. Documentation will be key during this time to ensure all objects are tracked efficiently. Box inventories will be documented and will include catalogue numbers, box numbers, and locations, so that each object will be able to be tracked while in temporary storage and can be organized correctly when placed into the new storage system. This move will be overseen by the project director with the assistance of trained student workers and will be completed within the first four months of the project. The project team will meet monthly throughout the duration of the project to share project summaries and celebrate milestones. The project director will prepare monthly progress reports from this information to ensure the project schedule is being met and work is progressing on track.

The project and museum director, Karly Tumminello, has experience with collection moves as she assisted in the 2010-2012 move and inventory of the Northern Illinois University's Anthropology Museum. This project involved moving 20,000 artifacts into temporary storage while the museum building was renovated.

The Jurica Biology Charts must be flattened before being transferred into the flat file storage. These biological flip charts are original anatomical drawings and paintings completed between the 1920's – 1950's by the museum founders, Frs. Hilary and Edmund Jurica, O.S.B., and were used as teaching aids in their classes. There are over 600 charts, which hang from their original wood and metal hanging racks. There are risks associated with handling these delicate artworks. The project director will include specific training for all project staff on handling these large charts, properly disengaging and removing the hanging racks, and carrying out the flattening techniques. This will be an ongoing process throughout the duration of the project as there is only space to set up a workstation to properly flatten up to 50 charts per month.

The project director, Karly Tumminello, has attended trainings from the International Preservations Studies Center, including Care of Paper Artifacts in 2016, and has successfully run a pilot project in 2016 to assess the best method for flattening these charts. The charts are made from a thin linen material and have water soluble inks applied. The pilot project used passive techniques to flatten the charts by layering up to 5 charts between sheets of Tyvek, placing a large piece of Plexiglas on top, and placing book weights on top to use gravity and slight pressure to encourage flattening of the charts. This same technique will be used in this project. The charts will remain pressed for one month and then will be stored neatly in the flat file storage. Undergraduate students will be trained to assist with this process and this will be ongoing throughout the duration of the project schedule. Monthly project summaries will be compiled by the project staff to ensure the workflow goal of processing 50 charts per month is successfully on track.

Second, the database and inventory of the research collection will be completed. As noted by Catherine Hawks in the 1995 CAP Report, the egg collection and other well-documented specimens are an important research resource. The research collection includes specimens in good to excellent condition with excellent documentation reserved for scientific research. The collection has great potential value, especially to researchers, scholars, and educators participating in the Discovery Box Loan program. The focus of the SOS project will be to open this collection up to the public so anyone interested in learning more about these historic specimens can access this information.

The collections manager will be brought on at the start of the grant to verify the scientific, accession, and location information for the research collections in the museum's database, updating as necessary. The collections manager will compile weekly progress summaries and will meet monthly with the project director to ensure the workflow schedule is successfully being met and tracked throughout the duration of the project.

Third, each specimen will be photographed and have a condition report completed. The museum will be using the Department of Biological Science's Canon 7D EOS SLR camera with Canon EF 100mm macro lens or Canon EF-S 17-55mm zoom lens, and Bencher Copymate photography copy stand or Manfrotto 055XB tripod, depending on the size and orientation of the specimen. The photography station will be set up in the Morphometric Lab on the 3rd floor of the Birck Hall of Science and can be left in place for the duration of the grant project schedule. Specimens will be transferred to this lab via cart and then moved back into storage the same day. Documentation will be completed before the specimen leaves storage so all specimens can be tracked during this transfer to and from the photography station. This will limit risk of physical damage to the specimen as specimens will not be left out on carts overnight and it will limit risks of lost or misplaced specimens as each will be returned to its proper storage location immediately following the photographing procedures.

The project and museum director, Karly Tumminello, has taken a professional development course, *Photographing Museum Collections*, from the International Preservation Studies Center in 2017, and will be overseeing the workflow for this portion of the project. Approximately five specimens will be processed per hour, or 205 per month, and the total of 4,500 specimens in the research collection will be processed over 22 months. There will also be time set aside each day to archive the digital files from the photography of the specimens and add those files to the database. Undergraduate student workers and interns will assist the collections manager and project director with these tasks. To ensure the progress of this workflow is attainable, weekly progress summaries will be completed by the project staff to ensure the team is on track to meeting the monthly goals.

Fourth, the database will be made accessible to the public. Currently, the museum has a Microsoft Access database that was created in 2006 as part of an undergraduate student capstone project. This database contains records of 22,500 specimens and their associated data. This database was migrated into a Specify 6 database platform in 2012; however, it has not been fully implemented or used as the primary database for the collection. Using Specify 6 will allow us to manage the specimen information, link digital images to the records, and make the database accessible online. The collections manager, with oversight from the project director, will work to fully utilize the features Specify 6 provides to document the collections and make it accessible to all. The museum has the support of the IT Department at Benedictine University. In addition to launching the database on the website, we will also promote the availability of this information through a major public relations campaign at the conclusion of the project in conjunction with the 100 year anniversary of the collection.

To accomplish all of the tasks associated with this project, the project director will dedicate 5% of her time. A part-time collections manager will be hired for the duration of this project, and will commit 100% of their time to this project. Undergraduate students will be hired who can be dedicated to the project for its duration. The financial support for these student workers will be provided by a combination of museum operating funds and work study funds. The museum will have approximately 1,521 annual contact hours per year with the current student worker funding available. This component will address the museum's continued commitment to education and outreach by involving students from diverse disciplines and backgrounds in hands-on learning opportunities. Working with students who are unfamiliar with museum standards poses risks to the collection as well as their own personal safety. The project director will provide resources and regular intensive trainings to disseminate proper handling techniques, personal safety, agents of deterioration, data management protocols, and other information vital to the project so the project team will have the information needed to safely and successfully complete their tasks.

The museum will celebrate the conclusion of this project with a major publicity campaign to recognize the project and all contributing personnel. Museum staff will develop a brochure highlighting the database resources, which will be marketed to Benedictine University faculty as well as regional public and private educators, including those using the museum's Discovery Box Loan Program. It will also be promoted via the museum and University social media page, the museum and University website, and the museum newsletter. It is expected that the Benedictine University online newspaper as well as local news media will publicize a press release. In addition, the museum staff intends to share the experience with the museum community at professional meetings and conferences. Progress of these tasks will be tracked by the project director and included in the monthly project reports.

The museum staff and student workers have been focused on tasks related to the museum's strategic plan and fulfilling the collections stewardship needs for decades. Over the past five years, professional development,

trainings and workshops, inventory procedures, strategic planning, and exploratory and piloting projects have been successfully achieved. The SOS project would allow the museum to move into the scaling phase of this overarching process of collections stewardship, empowering the museum to achieve measurable success to advance its strategic goals.

Project Results For Collections Stewardship and Public Access

The Jurica-Suchy Nature Museum has a unique role as a small university natural history museum and strives to exemplify best practices as we pursue our mission. Through our role in education and research, the museum aspires to better serve the audiences of students and faculty, regional educators, and the general public.

The SOS project is a major step toward addressing the CAP and ReCAP recommendations and meeting professional standards of collections stewardship. The new storage, specifically designed to accommodate our high priority collections, will provide secure, appropriate housing for these specimens.

Accessibility of the collection will improve in two ways. First, the physical accessibility will be improved by the more efficient use of space and increased stability of the specimens. The Jurica Charts will be stored properly in flat file storage for the first time in their existence, addressing issues of overcrowding, which will allow for improved preservation and full accessibility for collections care, research, and exhibition. The fossil and egg specimens will be logistically more organized on the new shelving, ensuring each specimen is able to be neatly located and accessible for research purposes. Second, the intellectual accessibility and how the museum's collections information is managed will be improved by digitizing the collection records, updating the catalogue information, and increasing the overall transparency of the collection by making the collections database widely available to the public through an online data portal.

The JSNM staff has established measurable goals for achieving success in each of the SOS project goals. Success for this project will include 1) realizing best practices in collections stewardship by addressing poor space allocation and specimen over-crowding will be measured quantitatively by the number of specimens that will be rehoused in new storage solutions, and qualitatively by the degree to which this subset of the collection can be securely accommodated by the new storage shelving and flat file storage; 2) addressing and improving the physical and intellectual access to the research collection will be measured quantitatively by the number of complete specimen records that are updated in the new Specify database, the number of specimen photographs added to the database, and the number of specimen records shared to the public via the online data portal; 3) increasing the capacity of the museum to meet the needs of researchers, students, and faculty, and the capacity to offer resources that increase community awareness of the museum will be quantitatively assessed by the increase in the number of requests for faculty research support, the increased number of student research projects focused on museum collections, usage rates of the online database, and the increase in the number of students, faculty, and community members using the museum resources and programs; 4) providing undergraduate student workers and interns the training necessary to assist with the tasks associated with the SOS project will be qualitatively assessed by the ability of the project staff to support students to overcome challenges as they arise during the project so they can succeed in their tasks, and quantitatively by the number of students who are hired to assist with the project.

Over the course of the SOS project, the project director and collections manager will meet weekly to discuss progress and ensure any challenges are addressed early on. The project staff, including student workers, will meet monthly to ensure tasks are clear and followed through properly, to track the project's measureable outcomes, and ensure the project is proceeding on schedule.

