Zoological Society of Milwaukee

Advancing Empathy Grant Program

The BioFACTS: Creating Resources for Managing Zoo and Aquarium Teaching Collections

ADVANCING EMPATHY GRANT PROGRAM

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Agenda:

- Introductions
- Grant Purpose & Goals
- Successes
- Addressing Challenges
- Q & A

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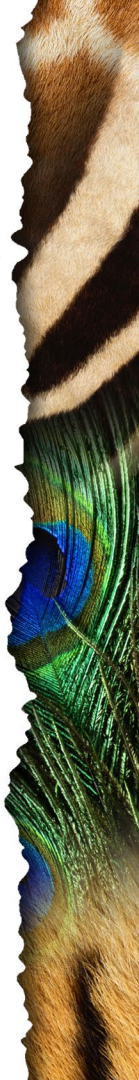

Grant Purpose & Goals

Formalize the Society's BioFacts program to highlight Empathy best practices.

1. Create a biofacts *Interpretive Guide* video series.

2. Create a biofacts *Maintenance Guide* video series.

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Outcomes and Impact

DELIVERABLE #1: *Created two videos showcasing empathy practices using animal and conservation biofacts.*

- How to Interpret with Conservation Biofacts video.
- How to Interpret in Classroom video.

DELIVERABLE #2: *Created three videos showcasing best practices when maintaining biofacts.*

- Maintenance Empathy for Biofacts video: How to Fold a Pelt (With and Without a Head) video. Arsenic Testing on Taxidermy video.

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Evaluation and Assessment

- Qualitative Feedback
- Staff Observations
- Peer-to-Peer Professional Engagement
- Evidence-based Research

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Products: Best Practice Videos (Arsenic Testing)

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Products: Best Practice Videos (Pelt Folding)

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Products: Interpretation Videos (Classroom Use)

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Products: Interpretation Videos (Conservation Biofacts)

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Products: Biofact Standard Operating Procedure

Temperature

The ideal biofact storage temperature is between 55-59F for maximum longevity. However, in most situations, this is impractical from both an HVAC and a human comfort perspective. A higher temperature range (65-70F) is well within the range of what the specimens can tolerate. Consistency in temperature is important- it's far better to be 80F year-round than bouncing between 60-70F daily or 65-90F seasonally. Creating a microclimate using a box or cabinet will help mitigate temperature swings. **Temperature is inversely correlated to humidity- so the lower the temperature the higher the humidity will be and vice versa. Controlling the temperature in the space can help you reach optimal humidity, or tame swings in the RH of the room.**

Relative humidity

The ideal relative humidity (water vapor in the air relative to the ambient temperature) for storing biofacts is between 30%-65% RH. Below 30% RH increases the risk of specimens becoming brittle (embrittlement), and above 65% increases the risk of mold growing on organic materials. However, maintaining consistent RH in storage is maybe more important as storage within the target range- storage at a consistent 70% relative humidity (despite being out of the target range) is far better than storage where the RH fluctuates rapidly between 40%-60%. Large fluctuations increase the risk of tears/ rips in skins and

Drop Tags

Any acid free stock can be made into a drop tag [Insert Image]; use either an archival pen (see chart above) or marker or run it through the printer to make a label. They can be attached to specimens with string (look for a cotton string that is undyed/ uncolored), small zip tie, or sewn on pelts or skins if the biofact is robust enough. The label should be durable enough to withstand handling, and big enough to contain data but not so big that it's in the way. An annoying label is a label that gets removed/ lost. Drop tags are most effectively used on specimens like mounts or objects where the texture prevents them from being permanently labeled with ink (such as corals, articulated skeletons, etc.)

Permanent Labeling

Sometimes it is useful to label a specimen directly (usually for pelts, bones, horns, and teeth) with permanent ink. The best option is carbon-based ink (see materials table for options). If possible, avoid Sharpies ® or other alcohol or oil-based inks. When labeling materials in this manner, choose an area that will not cover any crucial structures that you might want to interpret, but do not make the label so obscure that you cannot find the label. For robust pelts that are in good condition, labels can be sewn onto the underside of the pelt, if desired.

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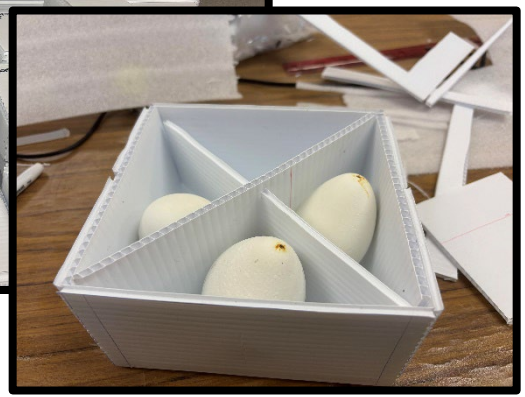
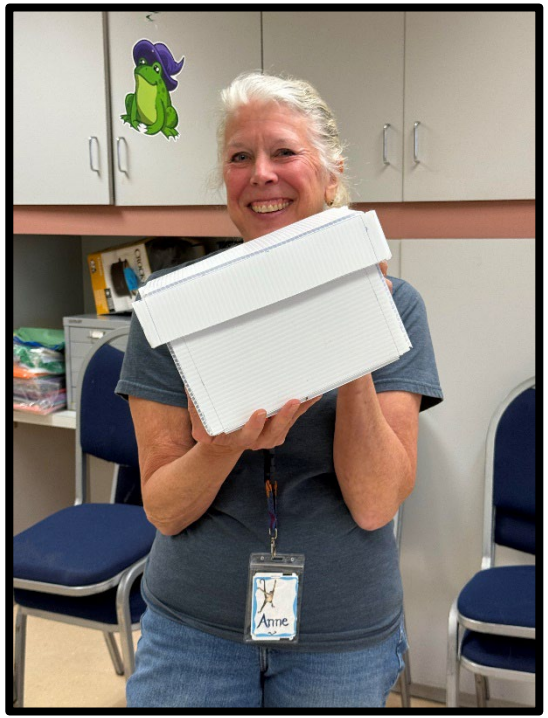
Future Projects and Feedback!





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Questions?

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Thank you
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