

# Alaska State Museums BULLETIN

An Information Source for Alaska's Museum Community

## Integrated Pest Management Made Easy

by Ellen Carrlee

Your building has pests. Yes, it really does. So does ours. But are they a threat to your collection? With an Integrated Pest Management (IPM) system, you can be actively prevent infestation and effectively respond if one occurs.

In the past, museums responded to infestation with poisons. Many of these are now illegal; some contaminated or damaged the artifacts, and were dangerous to museum staff. Museums took a cue from the agriculture industry, which needed to control bugs without contaminating food.

### Housekeeping

An IPM system uses good housekeeping to keep pests out, traps to monitor the presence of bugs, and extreme low temperature to treat infestations. Good housekeeping aims to keep pests out in the first place. If you avoid carrying in pests, stop them from entering, and reduce

things that attract them, you're preventing the problem in the first place.

### Monitoring

Monitoring your pest populations with sticky traps gives you an early warning of trouble afoot. We order our traps through Insects Limited. For our approximately 24,000 square feet, we set about 50 traps where a bug is likely to stroll in. This includes along the base of walls, near water, and next to doorways. We number each location on a map, and label each trap with its number, location and date. We change the traps every three months, and chart what we find. We take a flashlight and check dark corners for rodent droppings or other debris.

Our traps at the ASM usually contain lots of spiders and sowbugs as well as ants, large black click beetles, and centipedes. Google Images is helpful in

*see > IPM on page 3*

## Insect Identification

**Common Heritage Eaters**

1. Cigarette beetle
2. Drugstore beetle
3. Confused flour beetle
4. Saw-toothed grain beetle
5. Carpet beetle
6. Common carpet beetle larvae
7. Varied carpet beetle
8. Common dermestid beetle
9. Larder beetle
10. Webbing clothes moth
11. American spider beetle
12. Hide beetle

**Common "Harmless" Bugs**

- 1&2. Spiders eat other insects, not collections. Spiders can be reduced by sticky traps.
3. Minute scavenger beetles eat mostly molds and fungi.
4. Common weevil, a grain eater.
5. Carpenter ants don't eat artifacts but indicate building problems.
6. Common housefly, mostly a nuisance for leaving droppings called "flyspecks."
7. Picnic ants look for sugar.
- 8&9. Sowbugs come in many shapes and live in damp areas.
- 10-12. Carabids, click beetles and other large beetles are generally harmless.

**Insect Debris**

1. Frass
2. Larva and casings
3. Cocoons

# Museum Success Stories

## Kodiak's Baranov Museum

by Miriam Landau

The Baranov Museum in Kodiak displays one of the rarest baidarkas in existence. The hundred-year-old kayak is a portable,

um made a successful application to the ASM for a 2007 Grant-In-Aid to bring in Dana Senge, an objects conservator, to repair the boat. She worked with staff from Kodiak's Baranov and Alutiiq Museums to clean and restore the baidarka.

Dana stabilized and repaired the boat with the help of the Kodiak community. She taught a workshop for Baranov and Alutiiq museum staff on how to clean the baidarka. "They [Kodiak residents] are so receptive to working with the conservators and I really enjoyed collaborating with them!" Dana said of her experience. After performing her work, Dana did an assessment survey of the Baranov Museum's collection for future projects.

Bob Banghart, the Curator of Exhibitions at the ASM, was brought to Kodiak through the State Museum Outreach Program to devise a more efficient way to hang the baidarka. Bob designed a mount that better supported the kayak structurally and spent four days working with the museum's staff sharing his knowledge and experience.

The three-week project brought the community together in a show of hands-on support for the museum. Katie Oliver, the Baranov Museum Director, did a great job orchestrating community involvement. The entire treatment was done in the main room of the Baranov Museum, allowing

many people to watch as well as participate. "One of those wonderful things about small museums is that the boat is in proximity of the audience," Bob says. This was certainly true when students from Kodiak's St. Innocent's Academy, crews from local fishing vessels, biologists from the Department of Fish & Game, and others, provided much-needed assistance in transferring the boat from its mount to the floor where the work could take place. Alfred Naumoff, a local kayak builder, also did an analysis and created a sketch of the boat.

The project also brought the baidarka more recognition in the community. People who hadn't been to the museum in decades came to see the conservation process. "It was definitely a rallying project for us to get people interested and there were people who didn't know we had this baidarka," Katie said. During restoration, the museum was free to the public and the month of November brought in double the usual number of visitors.



*The first day of cleaning. Dana Senge, Objects Conservator, and kayak builder Alfred Naumoff are in the bottom left. Tricia Squartsoff and Rose Kinsley of the Alutiiq Museum are in the upper right.*

skin-covered, wooden-frame boat used by Alaska Native peoples. It is one of only five three-hatch baidarkas in the world and one of two in the western hemisphere.

In November 2007 the Baranov Museum embarked on a project to restore the baidarka. This is the first facelift it has seen since 1978. With the baidarka now needing attention again, the Baranov Muse-



*Community members examine the surface and construction of the baidarka.*

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[museums.state.ak.us](http://museums.state.ak.us)

# IPM at ASM

## ASM Housekeeping Rules

- Food and eating is restricted to the kitchen and conference room.
- Eating in the galleries is limited to special events and to one area. The carpet is vacuumed, linens laundered, and trash taken out of the building right after the event.
- Beverages on staff desks are restricted to water, coffee or tea in a closed container.
- Collections are kept free of non-collections materials and clutter. The cleaner you notice something is wrong.
- Packing materials are disposed of in the dumpster outside the building.
- No plants or flowers in the building. None. Not even for a few hours. They are a known source of bugs as well as bug food.
- Structural gaps in the building are closed with silicone caulk, weather stripping or door sweeps. Holes are plugged with rust-proof, brassy steel wool to stop rodent infestation.
- ¼" steel hardware cloth covers floor drains. Rats swim!
- Water drains on the roof are cleared with a hose to eliminate gnats.

## To Order Sticky Traps

Insects Limited  
(317) 896-9300  
[www.insectslimited.com](http://www.insectslimited.com)

## Online Bug Identification

[www.images.google.com](http://www.images.google.com)  
[www.bugguide.net](http://www.bugguide.net)  
[www.museumpests.net](http://www.museumpests.net)

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identifying bugs. When we find an insect that looks like a “heritage eater,” but we aren’t sure, we put out extra traps in that location for next time and send the trap to the Forest Service Regional Forester for positive identification. Staff catches any bugs they see on a piece of Scotch tape. Anything that was originally a plant or animal has potential for insect infestation. At the top of the list for tasty bug treats are: fur, feathers, leather, and wool.

### Treatment

Treatment involves a freezer. Research indicates that our “heritage eaters” can be killed in all phases of their life cycle by one week below -20°C. However, many museums only have access to a frost-free freezer, with temperatures that cycle well above -20°C. Many insects are “frost tolerant” and can make a substance like antifreeze to survive a dose of cold. But our brains are bigger! The artifact can be placed in the freezer for a week, then remove for 24 hours to allow it to reach room temperature, and then put back in the freezer for another week to deliver a deadly second round of cold. Be sure to leave the object encased in its packaging between freezings to make sure water does not condense on the artifact.

It is very important to package the artifact properly for low temperature treatment. Wrap the artifact in a soft absorbent material such as plain tissue paper, white (non-decorated) paper towels, or a soft cloth. This helps protect it against both the increase in relative humidity at lowered

temperature and brittleness that occurs when things are cold. Place the artifact in a plastic bag that is well sealed. Squeeze as much air from the bag as you can and seal the zip-lock or use a heat sealer if possible.

Lucky for us, most museum artifacts don’t have enough water in them to create ice. However, upon removal from the freezer, condensation will form, and it is better for that moisture to form on the plastic than on your artifact! After a day of adjusting to room temperature, you can safely remove your artifact from the package. Removing all the old bug debris is a good idea, so any future bug debris will be a clue to a new infestation. Brushing the debris into a mesh-covered nozzle of a vacuum cleaner with a soft brush usually does the trick.

When infestations occur, not only do the artifacts go into the freezer, but the infested storage or exhibit space must be vacuumed, the carpet steam-cleaned, and the perimeter of the area dusted with boric acid. Occasionally, it is necessary to turn to bait. Ant traps and D-Con are examples of bait, which are not pesticides but kill the pest through mechanisms like thinning the blood to induce internal bleeding. Bait typically kills much more efficiently than traps. A recent infestation of picnic ants at the Alaska State Museum was controlled with ant bait that was carried back to the nest.

Many museums do preventive treatment of incoming artifacts with the freezer. A donation of a fur parka, for

example, would definitely go in our freezer before it went into our clean collections room. But what if you don’t have a freezer, or the incoming artifact is too big? Careful visual inspection into the object’s dark crevices can help set your mind at ease. Look for holes, loose hair, bald patches, live bugs, bug parts, cocoons, webbing, bug nests, and tiny bug droppings known as “frass.”

Frass is round, so suspicious looking dirt can be sprinkled on a piece of paper and the paper tilted... if it rolls easily, it might be frass. If you don’t see this evidence, the next step is to lay the artifact on a pristine white surface and place some sticky traps around it. Wait two months or so to allow any eggs to hatch and get active. If you see no debris on the white surface and nobody in the sticky traps, you’re probably safe. Preventive treatment is also done with most organic items for sale in the Alaska State Museum gift shop.

An Integrated Pest Management system is part of professional museum practice, just like monitoring your temperature and relative humidity, and keeping your light levels appropriate. Dealing with an infestation after it happens is upsetting, time consuming, difficult, and often means irreversible damage to museum collections. An ounce of prevention is truly worth a pound of cure. Have questions? Call us! Scott Carrlee 465-4806 or Ellen Carrlee 465-2396.

# Ask ASM: What is the difference between accessioning and cataloging objects?

Although accessioning and cataloging seem to be similar at first glance, they perform two different functions. Accessioning is primarily a legal distinction that occurs when a museum acquires ownership of an object, while cataloging is a practical process that records details about the artifact.

There is also a difference between acquiring an object

and accessioning it. An acquired object is an artifact on loan to the museum but will not or has not yet become part of the museum's permanent collection. An accessioned object has already been brought into the permanent collection through transfer of ownership. This is an important distinction that affects how the object is documented and has extensive legal ramifications.

At the Alaska State Museum, the Staff Acquisition Committee decides whether to accession an object. Accession occurs when the object is initially accepted into the museum's permanent care and the transition is marked by the act of recording the new artifact (accessioning). Every accession at the ASM is given a number and an accession record - a written trail that in-

cludes where it came from and how the museum it. Accessioning refers to both incorporating the object into the permanent collection and the formal process done to legally mark the transition.

Cataloging is done after objects are accessioned and refers to a more detailed, cross-referenced recording of significant information. At the ASM this includes

entering the data into a computer program produced by ARGUS Software created for this purpose.

A rule of thumb to differentiate between accessioning and cataloging is that accessioning occurs before the objects are catalogued and in general items are only catalogued once they are accessioned.

## Note:

This years Grant-in-Aid applications (FY2009) will be mailed out and available online on April 1st. Start thinking of your great museum projects! Call for help shaping ideas into fundable projects.

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## THE BULLETIN

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