



Mammal Society Owl Pellet Safety Guidelines

Safety guidelines

The dissection of owl pellets can provide a valuable learning experience for students at all grade levels. The following guidelines will help to ensure that this activity is done in a safe fashion.

Consider the risk of contamination

Owl pellets contain the remains of small animals that the owl has ingested and can be a source of bacterial contamination. If you wish you can wrap pellets in foil and heat them in an oven at 150° C for 4 hours to eliminate most bacteria, including salmonella bacteria. Allow them to cool fully before unwrapping and dissecting. We do not treat them with chemicals. Keep them wrapped until time to use, to prevent insect infestations or contamination.

The pellets you are receiving from the Mammal Society have not been sterilised by heating, but they have been frozen for 24 hours to ensure that no live insect larvae or parasites are present in the pellets. This also helps offers some protection from bacteria.

Handle owl pellets, even sterilized ones, as though they could be a source of bacterial or viral contamination.

This is good advice for any and all lab work involving biological materials. The students should learn the importance of good laboratory practices. It will serve them well throughout their academic career and beyond. Caution in the form of good laboratory practices is of great importance whenever one is working with biological materials or chemicals.

Do not use food consumption areas for owl pellet activities.

Owl pellets should not to be dissected in food consumption areas. Covering tables with an impermeable, disposable material such as aluminium foil will greatly diminish the likelihood of microbial infections. Any trays, paper, or plates used as work surfaces for dissection of the pellets should be disposed of or sanitised upon completion of the activity.

No eating or drinking in the dissection area!

During the activity, students must not be allowed to use drinking fountains or get water from sinks for drinking. Eating and drinking should take place before the activity or after the student has completed the activity and thoroughly washed his or her hands, and should take place outside the dissection area.

Use gloves and/or wash hands.

It may be advisable to give students disposable gloves (compostable options are available) and instruct them in how to use the gloves properly. Students should also be instructed to keep their hands away from their faces during the activity, and not to touch other surfaces and items away

from the work surface and materials. Students should be shown that, when removing gloves, they must avoid skin contact with the exterior of the glove. Common practice is:

1. Remove the first glove by grasping the cuff, taking care not to touch bare skin, and peeling the glove off the hand so that the glove is inside out.
2. Remove the second glove while holding the inside of the first in the ungloved hand.
3. Drop both into the disposal receptacle.

Immediately after the activity and after glove removal and disposal, students must thoroughly wash their hands with soap and warm water, rubbing them with lather for at least 20 seconds before rinsing, and should dry them with clean paper towels. Be sure sinks are available and well stocked with soap and paper towels. A waterless hand sanitizer can also be a very effective antimicrobial agent if it is comprised of at least 70% alcohol. This can be used in addition to hand washing or, if soap and water are simply not available, in lieu of hand washing (though hand washing is preferable). Do not use a waterless hand sanitizer that does not have this high alcohol content.

Owl pellet dissection provides a good opportunity to teach skills that will serve students well in their academic careers and, for some, in their professional careers or in volunteer activities. They can learn the importance of, and how to use, personal protective equipment (gloves in this instance) and how to protect themselves from microbial infections. **Note:** Latex gloves can cause allergic reactions in some individuals.

Supervise dissection activities.

A teacher or other adult(s) must oversee students' owl pellet dissection activities to ensure that they perform the activities safely.

Afterwards, promptly dispose of the owl pellets, plus all disposable materials used in the activity, in a bin. Bones kept as specimens can be kept in sealed specimen jars or display boxes, but it is advisable to place them into a weak bleach solution overnight.

Collect and sanitise dissection tools, trays, etc., immediately after the activity.

Allow students to use only the tools provided; do not allow them to use pencils or other personal items that they will maintain in their possession after the activity. If possible, use disposable dissection tools and then throw them away. Otherwise, immediately sanitize tools using a bactericidal and virucidal cleaning agent according to its instructions, or by soaking the tools for 2 hours in a 10% household bleach solution or in 70% ethanol.

Wash and sanitize work surfaces immediately after the dissection activity.

Use a cleaning agent that is bactericidal and virucidal, and use according to label instructions. Alternatively, 70% ethanol may be used (be aware that it is flammable), or a 10% household bleach solution makes an effective sanitizing solution (be aware that chlorine bleach is corrosive and irritating to skin and may damage clothing). Use disposable paper towels and throw them away. Do not use sponges or rags that might hold and spread bacteria or viruses. After the students have washed their hands, sanitize the sinks and surrounding surfaces.