## **EE Activity Recipes**

### "Hawk Mountain Raptor Egg Hunt"



#### Introduction

In 2004 through 2007, Hawk Mountain conducted an education program centered on raptor eggs and nests. Unlike a traditional Easter, the grounds of Hawk Mountain Sanctuary were visited not by a mythical rabbit, but by the Easter Raptor.

The Easter Raptor, as the myth was told to me, has big broad wings like that of a buteo, but the wings are pointed near their end, like that of falcons, all the while possessing a disproportionably long tail like that of accipiters. In addition, the Easter Raptor has a white feathered head and large yellow beak like that of the Bald Eagle and facial discs like that of the Northern Harrier. The right foot and leg are feathered down to the toes, like that of the Roughlegged Hawk and Golden Eagle, whereas the left foot is scaled and featherless. Of course, both feet are zygodactyl, like that of the Osprey, with the left foot possessing elongated toes like that of the accipiters and falcons.

The Easter Raptor secretly places eggs on the grounds of Hawk Mountain. The eggs are not colored in the bright hues of spring but rather in earth tones typical of raptors. The eggs represent falcon, hawk, and eagle eggs.

Children and their parents gather in the Sanctuary's outdoor amphitheater in anticipation of hunting for the eggs the Easter Raptor leaves behind. During the gathering, Hawk Mountain educators take a few moments to talk to visitors about raptors, their nests, and most important their eggs.



The following is an outline of the program.

#### Procedures:

## 1. Decide on your target audience and number of participants.

Our egg hunt includes children from 3 to 12 years of age. We encourage parents to accompany their children. Our first year we started small and allowed thirty children to participate. In 2005 we expanded to accommodate fifty children. The limiting factor for number of participants is the number of eggs. It's not a positive experience for some children to be unsuccessful at finding an egg, so it is important to limit the number of participants. The first year, we conducted two separate egg hunts, one for ages 3-7 and another for ages 8-12. In year two, we had three egg hunts, ages 3-5, 6-8, and 9-12.



#### 2. Get the eggs.

We purchase wooden eggs in three sizes from A.C. Moore in Allentown, PA. We supplement the wooden eggs with additional chicken eggs. The chicken eggs are less expensive than the wooden eggs, but usually come in only one size. Also, there is the dilemma of what to do with the inside of the chicken eggs. The first year (2004), we spent long, light-headed hours, blowing out the yolks and whites from the chicken eggs. The second year (2005) we simply hard-boiled the chicken eggs. Blowing-out the eggs is a substantial time commitment but if these eggs do not break during the hunt, it is possible to use them again the following season. In the case of the hardboiled eggs, we obviously can not use them again the next year, yuk! Wooden eggs, if painted properly, can be used repeatedly, and even though we gave away one egg to each child participant (please see procedures that follow), we were able to begin to build an inventory of wooden eggs for the egg hunt. Since 2005, we have used wooden eggs exclusively. If your budget allows, I would suggest purchasing wooden eggs.

#### 3. Paint the eggs.

Unlike traditional egg dyeing, we paint our eggs with all-purpose acrylic craft paint. This paint gives us the "earth-tones" desired to replicate raptor eggs. Because the craft paint is water-based, we spray each painted egg with a clear-coat sealer to help prevent the paint from washing-out or fading. Painting the eggs to look like those of typical raptors is difficult and again somewhat labor intensive.



We used Hawk Mountain's raptor egg collection as models for egg-painting. In our first year, we were fortunate to have an amateur artist who painted most of the eggs. In the second year, we needed even more painted eggs than the previous year, and several volunteers painted the eggs. We paint the three-sizes of raptor eggs to resemble that of three different kinds of raptors. The small eggs are painted to look like that of falcons, particularly the American Kestrel. The medium-sized eggs are painted to look like that of hawks, particularly the Red-tailed Hawk. The large eggs are painted off-white to look like those of Bald Eagles.



#### 4. Promotion and Registration.

This is a family event for Hawk Mountain, conducted free of charge. However, children register in advance so that we know the age of each child, and how many children are in each age group. We announce the short education presentation on raptor eggs prior to the egg-hunt. This is an opportunity to teach the older children and particularly the accompanying adults a bit about raptors. Again, it is particularly important that you stick with the agreed maximum number of egg-hunt participants to assure everyone an opportunity to find a couple of raptor eggs. We schedule the program and subsequent egg hunt to begin in our outdoor amphitheater at noon. March and the beginning of April, can be quite cool atop the mountain, noon is often the warmest part of the day. When children and their parent arrive, we quickly check them for pre-registration. As many young children with a limited attention-span attend, we want to get started as soon as possible.

#### 5. Hide the Eggs.

In 2005, we held three egg-hunts simultaneously, one for each of the three age groups. We use the forest behind the amphitheater and use parking cones to mark the boundaries of each hunt. The 3-5 year-olds have the easiest terrain and the smallest hunt-plot. While the 9-12 year-olds have the most difficult terrain and the largest area in which to look for the raptor eggs. Unlike more traditional brightly-colored eggs, our earth-tone raptor eggs are easier to hide in plain view.



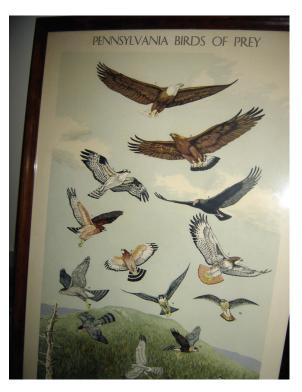
Again the eggs are hidden with more difficulty for the older age groups than for that of the younger. In the previous two years, the three age groups had similar numbers of participants, and the number of hidden eggs varied according to the number of participants in each group so that every child was afforded equal opportunity to find the eggs. There are equal proportions of each of the three raptor eggs (falcon, hawk, and eagle) within the groups, although there were more "hawk" eggs than falcon or eagle eggs in our first two years, since we supplement our wooden collection of eggs with hawk-sized chicken eggs.

#### 6. Pre-hunt program.

A short 15-minute program precedes the egghunt. The illustrated talk includes a home-made replica raptor nest, kestrel nestbox, and flat rock (to represent cliff nesters), and a poster of a nesting Red-tailed Hawk. In addition, real raptor-eggs from Hawk Mountain's egg collection are on display. The eggs are secure in small individual plastic containers (with a bit of cotton), so children and adults can pick-up and examine them. The narrative includes a description of the Easter Raptor as well as some discussion informing the goals and objectives outlined in (procedure #9).

#### 7. Conduct the Hunt.

Each Hawk Mountain educator is assigned one of the three hunts. At least four people are needed to coordinate the program, but extra hands are helpful. The coordinator for each age group explains the rules and boundaries to their respective participants (and parents in the case of the younger groups). Each child was asked to find five eggs and at least one of each type (falcon, hawk, eagle). The eagle eggs are the most difficult to find, as there are not enough for each child to find one. The children return to the coordinator once they find five eggs. Limiting the number of eggs a child finds gives each child the opportunity to find eggs, and removes much of the competition surrounding more tradtional egg-hunts. Some children and their parents finish before others and this allows them opportunity to ask additional questions about raptors eggs and nests. After every child returns to the coordinator with their eggs, the participants are asked to go out and search for any remaining eggs. This provides an extra challenge for some of the more cunning egg-hunters.



#### 8. Wrap-up.

All children and their parents return to the amphitheater after the egg-hunt. Each child decides which of their five eggs they would like to keep as a souvenir. The remaining eggs are collected and in return each child receives a bird-sticker book. There is time set aside at the conclusion of the program for parents and children to ask questions regarding nesting raptors and their eggs.

#### 9. Goal and objectives.

The following are the goal and objectives for the Raptor Eggs and Nests program.

#### Goal

To introduce participants to raptor eggs and nests.

#### **Objectives**

By the end of the activity student will be able to:

#### Identify three nesting "strategies" of raptors.

- Constructing a nest
- Using a ledge, scrape, etc.
- Using a cavity
- Using the nest of another raptor or bird

## List three places, natural and human made, where raptors may nest.

- Cliffs
- Sky-scraper ledges
- Caves
- Bridges
- Hollow logs and hollow trees
- Nestboxes, barns, nesting platforms
- In trees and on the ground (grasslands)
- Other natural and human-made cavities, other tall structures

# List and briefly explain characteristics of raptor nests that may or may not differ from other bird nests.

- Using nest or nest sites year after year, etc.
- Using "greenery" to possible control nest pests (feather lice, biting flies) and reduce bacteria.
- Bark flake lining for accipiter's, other "linings" for the nest
- Large nests may be occupied by other smaller

birds including other raptors

Adding new material to nest year after year

## Identify at least two characteristics of raptor eggs.

- May raptor eggs are white
- Some raptor eggs are colored (usually splotches or spots)
- Eggs of falcons often are buff or reddish ground color.
- Eggs in clutches usually laid 2-3 days apart
- Smaller raptors tend to lay larger eggs (relative to body size)
- Smaller raptors tend to lay larger clutches

#### **Possible extensions**

- Care of the eggs (brood patch, male vs. female incubation, turning the eggs, central and peripheral eggs in clutch, shelter from sun)
- Egg-shell thinning and the DDT era
- Egg-shell structure and composition (also female investment of nutrients)

#### For more information on raptors:

www.hawkmountain.org



Located along the Appalachian Flyway in east-central Pennsylvania, scenic Hawk Mountain Sanctuary offers visitors an outstanding, year-round nature experience with its mountaintop vistas, 8 miles of hiking trails, and thrilling autumnal raptor migration.

In 2006, Hawk Mountain counters recorded an astonishing 25,156 hawks, eagles and falcons--the largest number of migrants in two decades.

