Activity 7
Swallow Census
Objective:
To make students aware of swallows nesting at their school, teach them about the process of monitoring bird nests, and learn about bird behaviors.

Materials:
- Sample Map of Swallow Census at the Palomarin Field Station
- Map of census area (your school)
- Clipboard
- Pens, pencils

Duration:
Monitor swallow nests once a week

Background:
Each year, Barn Swallows (BARS), Cliff Swallows (CLSW) and Tree Swallows (TRES), return from their wintering grounds in the tropics to North America to breed. The breeding season is typically March through July and at PRBO’s Palomarin Field Station the swallows that return build their nests under the eaves of our buildings. Barn and Cliff Swallows build nests made out of mud and Tree Swallows use hollowed-out cavities in trees or nest boxes placed around the Palomarin Field Station.

Swallow nests at the field station are monitored weekly during the breeding season starting on April 1 and going through July. This type of nest monitoring can also be done at schools where many swallows tend to build their nests. It is an excellent way for students to learn about bird behavior, how birds build nests, and how to monitor a nest.

Procedure:

Monitoring Swallow Nests

1. Begin monitoring nests weekly in the beginning of April and continue through the end of the school year.
2. As a class, research Barn and Cliff Swallows. Generate a discussion about the types of nest each swallow builds (for Barn and Cliff Swallows) and how they build them. Ask students if they have seen any of these nests around the school.

Other questions to research:
- How many eggs do Barn and Cliff Swallows lay (clutch size)?
- How long do the eggs need to be incubated before they hatch?
- How long will the nestlings (babies) stay in the nest before they are ready to fledge (leave the nest)?

These are great questions to get students thinking about swallow nests and the swallows they have observed around their school.

3. After the discussion, have students draw a map of the school or provide one for them. This only needs to be a simple outline drawing of the layout of the school for this activity. Pass out a copy to each student of the example Swallow Census map from the Palomarin Field Station included with this activity.

4. Have students place their single blank map of the school onto a clipboard. Next locate the Barn and Cliff Swallow nests under the eaves of the school buildings. Find an area to observe the swallows and their nests where they will not be bothered by the students’ and your presence. When monitoring nests you want to prevent high levels of stress in the parents.

4. Draw the nests onto the maps and label them either Barn (BARS) or Cliff Swallow (CLSW). Then observe specific nests to determine whether they are still being built, have eggs, or nestlings. Determining if the nests have eggs will be the most difficult to do because you will not be able to see inside the nests. Although, the parents’ behavior may give you clues to whether they have eggs or nestlings. If the parents are acting upset, flying around you and making a lot of noise, then they probably have eggs or nestlings. This also should tell you that you are too close to the nests and should move your
Activity 7

If the parents have food (insects) in their mouths while flying to the nest and then leave the nest without food, this is a sure sign that they have nestlings. Other signs that a pair has nestlings are bird feces and egg shell fragments beneath the nest.

5. Once the nests are drawn on the maps and labeled, write whether they are building or what the contents of the nest may be (i.e., if you think they have eggs or nestlings) and any evidence of this.

6. Discuss what was observed with the students following your time outside each time the swallow nests are monitored.

Extension Activities

One problem that students have faced when trying to monitor swallow nests was that the nests were knocked down by school maintenance workers when cleaning the school grounds.

- One solution to this problem is to make the school aware of the nests. There are nests being built, eggs being laid and hatched, and babies fledging all within a month right outside of the classrooms and offices! This is an exciting thing to see and be a part of.
- Have students make informational posters about the swallows and their nests and why their nests should not be knocked down. Place them around the school.
- If the students are ambitious, they could place posters around their neighborhoods to educate even more of the public about swallows and their nests.
- This project can be continued each year. Future classes will be able to compare number of pairs nesting at the school. Percent of change and graphs can be created and will be interesting for students to interpret.