

A “Bird Cam” is a Great Educational Tool! It’s an Inexpensive and Fun Way to Promote Wildlife Awareness

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Royal Oaks Country Club is an 18 hole traditional style golf course located on 150 acres. Twelve of these acres are dedicated natural areas for wildlife enhancement. The club is a Certified Audubon Cooperative Sanctuary and follows the Audubon International’s standards for environmental management (See sidebar).

In the Spring of 2005, the club’s Audubon committee approved a bird cam project to monitor the arrival and nesting habits of swallows. The purpose of the project is to:

- provide a basic education on birds and the stewardship efforts of the club
- promote member involvement in regards to wildlife
- promote awareness of wildlife on the property
- inform the membership of the programs instituted through the club’s Audubon membership
- compliment the 28 existing bird boxes that are located throughout the property

To complete this project, the club purchased a mini camera and transmitter and installed it in a nesting box. The video signal is transmitted to a receiver in the clubhouse and shown on a monitor placed in the members lounge. Club members can observe the birds nesting cycles such as building their nests, laying their eggs, incubation, hatching, feeding, and fledging.

“Designation as a Certified Audubon Cooperative Sanctuary is awarded to a golf course upon meeting environmental management standards in the following five areas:

Wildlife and Habitat Management

The golf course enhances existing natural habitats and landscaping to promote wildlife and biodiversity conservation. Flexibility is essential to account for each course’s location, size, and layout, as well as special wildlife species and habitat considerations.

Chemical Use Reduction and Safety

The golf course implements best management practices at the maintenance facility and on the course to ensure that chemicals are stored, handled, applied, and disposed of safely. In addition, maintenance staff employ integrated pest management strategies to track and target specific pests and minimize chemical use.

Water Conservation

The golf course employs conservation management strategies to maximize the efficient use of water. These include determining proper irrigation; reducing irrigated acreage where possible; recapturing and re-using water; and incorporating drought-tolerant plant species.

Water Quality Management

The golf course implements Best Management Practices to eliminate potential nutrient or pesticide contamination of water sources. The course also employs environmentally-sensitive management practices in ponds, streams, and wetlands; proper equipment and chemical storage and handling; and water quality monitoring to verify results.

Outreach and Education

Golf course personnel build support for their environmental management program through a variety of communication, education, and outreach activities. They also form a Resource Advisory Group of people who provide technical advice and volunteer assistance to help implement the environmental plan. This helps to ensure the long-term success of environmental management practices, especially if staff assignments change.”

From: Audubon International, Programs, Cooperative Sanctuary Programs, Golf Course Program, “Certification Overview”,

http://www.auduboninternational.org/programs/acss/golf_certoverview.htm, viewed on November 9, 2006.



The bird box is located 400 feet from the main lounge. Our first challenge was to get power to the location. Since the camera needs very little power, an easy and economical solution was to splice into the irrigation system's power source. Our second challenge was to build a box that would accommodate the camera. We found that lighting was limited in the existing bird box and focusing the camera was difficult. After experimenting with different designs, we built a new box that was taller to accommodate the best

focal length and allow for better light conditions. Our third challenge was experimenting with the receiver location to maximize the best reception.

The total cost of the camera installation was approximately \$200. The cost of the camera was \$150. The camera is a Swann Nighthawk wireless outdoor camera from Radio Shack (model # is SW-P-WOC). It has 12 infrared LED's for its light source. The power requirement is 50 milliamps per hour at 8 volts. The monitor and bird box was donated by project managers, Jerry and Donna Schwanke.

Overall, the project was a success. The members and their children thought it was interesting, educational and entertaining. For a low cost we were able to bring in to view the nesting cycle of the swallows. One interesting habit we learned is that the male swallow will bring food to feed the female while she is incubating and that both parents share in the feeding of the young.

In the future we are considering installing a higher definition camera that will allow us to broadcast the "bird cam" on the club's website.

