**Pilot program for zoo bird banding operations**

**Goal:** This project will test the banding component of what will become the demonstration banding program for the general public held on zoo grounds. Here, we seek to set up potential net lanes and execute banding operations in order to evaluate catch rates and the general efficacy of selected nets.

**Description of activity:** Banding operations will occur on Thursdays and Fridays of each week. During each banding operation, 10-20 mist nets will be set up throughout the zoo grounds and will be open between the hours of 7 am and 11 am (see [this map](https://www.google.com/maps/d/edit?hl=en&mid=1dUpGaxB929TXEXI-2Nt5hx64hu4&ll=38.92919658440485%2C-77.05010128836057&z=17) for net locations). Any nets that are publically visible will be closed or taken down no later than 10 am. Mist nets are 12 m long (some are 6 m) and are fastened at each end to aluminum conduit (height = approximately 3 m). Nets visible from the path will have a sign warning onlookers that it is illegal to touch the net for any reason (go to [this link](https://github.com/bsevansunc/birdCats/blob/master/smbc/zooBandingSign.png) to view or download the sign). Potter traps (see [this link](http://www.powdermillarc.org/highlights/2013/winter.aspx) for an example of a potter trap) may be used in conjunction with netting efforts in publically inaccessible locations. It is prohibited for ANY person (general public, volunteers, or staff) to attempt to extract birds from nets or Potter traps without the express permission of the project manager (Dr. Brian Evans, email: [EvansBr@si.edu](mailto:EvansBr@si.edu), phone: 919-723-7907). Nets will be checked for birds a minimum of once every 30 minutes. Birds caught in nets will be placed in cloth bags and brought to a central location where they will be aged, sexed, measured (e.g., wing chord), banded with a USGS Aluminum bands and unique color band combinations, and released.

**Equipment needs:** The full banding equipment list is provided on [this spreadsheet](https://docs.google.com/spreadsheets/d/1lZfYova52vUKNAccVP1Yd8WZyTrK8EciHt9YnLnjn2U/edit#gid=0). We are requesting additional equipment for communication with the public, including: uniforms for SMBC staff and name tags for SMBC staff and volunteers. Additionally, we currently are maintaining three bird feeders on the grounds of the Science Building and request to place more feeders on zoo grounds to maximize catch rates.

**Staffing needs:** Initially, this project will require two SMBC staff members per banding operation to assist with extracting birds from nets and banding. We will require 2-4 volunteers and/or interns per banding operation. It is necessary that volunteers work at least one day per week. Volunteers will assist with data entry and on “net runs” () SMBC staff will train volunteers on the extraction of birds. With the exception of

Evaluation: We seek to identify net locations that minimize the distance walked on a net run while maximizing our rates of capture and the diversity of birds caught. Staff and volunteers will use handheld GPS units to record the path and path distance during a net run. We will record the net location, species captures, and time of capture and evaluate species-specific capture rates by net location.