

Piedmont Biodiversity Stewardship Council

Camera Trapping Survey in the Northern Piedmont

The Piedmont Biodiversity Stewardship Council (PBSC) is a collective group of landowners in the Northern Piedmont focused on gaining and disseminating knowledge about existing biodiversity in our region housed at Environmental Studies on the Piedmont

Overview

Our inaugural camera trap project addresses a large interest of many landowners; specifically what wildlife occurs on our properties, and in the region. Our study will survey animals that can be detected with the use of camera traps distributed throughout the Piedmont. This survey will provide a baseline to detect the presence of species; valuable information to monitor changes over time. In addition, we may be able to decipher interesting characteristics like behavior (activity patterns and movement) or general health (body condition). We will determine what species occur in different habitat types and photo capture rates for each species. For some species with unique individual markings (e.g. bobcat) it may also be possible to determine density of the species. Camera trapping is a well accepted tool among wildlife biologists and we anticipate publishing this study with consultation of Council members.

Study Design

Geographic Information System (GIS) maps indicating common habitats are being provided by the Piedmont Environmental Council. A 2.5 square kilometer grid will be overlaid on the map, and random sampling will be used to select sampling points for each habitat type across the Northern Piedmont. Initially, we will survey deciduous forest and riparian areas for one year, eventually expanding to a number of broad habitat types (i.e. coniferous forest, mixed forest, wetland, agriculture, transition etc) based on GIS information (e.g. 1992 USGS landcover database, 1995 Virginia forest assessment data and aerial photography). Reconyx cameras will be deployed at a density of at least 1 per 20 hectares and monitored bi-weekly throughout the year. Images recovered on the camera traps will be correlated to date, time, weather conditions and any notable conditions that might influence the presence or absence of certain species.

Participation

Council members will be consulted on the use of data collected by the project, and in the design of future experiments. Council members or designees interested in assisting with deploying and monitoring cameras are encouraged to learn these protocols and participate in the study. Environmental Studies will provide training sessions for those who interested.

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