



U.S. Fish & Wildlife Service

# National Conservation Training Center

## *Training Announcement*

### Design and Analysis of Biological Monitoring

CSP4230

#### Course Description

This course provides participants with the skills needed to design sampling protocols and analyze data for inventory and monitoring studies. The overall goal is to provide the toolsets necessary to collect reliable information on population status and trends. Through field and laboratory exercises, participants will develop and apply sampling designs, collect data and make estimates of a population characteristic (e.g., density or abundance) with confidence intervals. Topics include: site selection designs, sampling designs such as GRTS, BACI, stratified random and rotating panel designs, field methods and their influences on detectability, status and trend estimation.



Credit: USFWS

#### Objectives

Upon completion of this course, participants will be able to:

- ✓ Conduct simple random, systematic, adaptive cluster and distance sampling designs for estimation of population status
- ✓ Evaluate the design of monitoring studies to determine the power of detecting change in populations or habitats
- ✓ Address imperfect detection such as double observer sampling, adaptive sampling, distance sampling and occupancy modeling
- ✓ Apply methods to account for observer bias and variable detection rates
- ✓ Use regression models to detect trends

#### Date

September 9 – 13, 2019

#### Location

National Conservation Training Center,  
Shepherdstown, WV

#### Prerequisites

Statistical Modeling for Conservation (CSP4210) or the equivalent experience (per approval by the Course Leader).

#### Who Should Attend

U.S. Fish and Wildlife Service biologists or anyone involved in the design of field studies and the assessment of population trends.

#### Length

4.5 days

#### College Credit

2 semester hours

#### Tuition

Tuition for FWS and NPS participants is prepaid and \$1,195.00 for participants from other agencies and organizations.

#### To Register

Use DOI Talent, the Department of the Interior's Learning Management System. <https://doitalent.ibc.doi.gov/>. Contact Katie Poston (Katie\_poston@fws.gov) with registration inquiries.

**Note:** It is highly recommended that you enroll at least 10 weeks prior to the course start date to prevent low-enrollment cancellation.

#### Contact

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#### Reasonable Accommodation

USFWS is committed to providing access to training for all participants. Please contact us for sign language interpreting services, close captioning, or other accommodations at least ten business days in advance. TTY 800-877-8339.