

# Program MARK Workshop

## Feb. 17-21, 2019, Sde Boqer Campus

A first call to interested students:

Instructor: Prof. Gary White, Colorado State University

Title: Analysis of data from marked individuals

Course structure: Morning lectures with afternoon hand on classes.

Credit points: 2

Grading based on assignments - a final project that can be carried out on their own field data or fictitious data.

This beginner-to-intermediate-level workshop will provide ecologists, biologists and statisticians with the statistical background to understand the main-stream analyses performed by Program MARK, and the familiarity with the program to perform these analyses. A mixture of lectures and laboratory exercises will be provided. Participants will learn the basics of parameter estimation with likelihood theory, model selection with Akaike's Information Criterion (AIC), and the binomial and multinomial distributions. The Cormack-Jolly-Seber (CJS) mark-recapture, band (tag or ring) recovery, known fate, and closed captures models will be covered in detail. More advanced models will be described so that participants will understand the benefits of these models, but those models would not be covered extensively. Use of covariates, including individual covariates, will be covered with the CJS and band recovery models.

The clientele for this workshop are biologists with experience in the analysis of data from marked animals. The content is aimed at providing the participants with a solid background in the philosophy, theory, and analysis of data from marked animals. This is not a workshop for beginners to this subject.

Attendees are encouraged to bring their own data for analysis to the workshop, but should recognize that a thorough analysis will not be completed at the workshop. Given the amount of material to be covered, attendees likely would not be able to begin analysis of their own data until the next to the last day.

**Attendees can bring their own notebook computers.** Be sure to install MARK on the notebook you bring.

The course is limited to a max of 20 students. Students interested in attending (at this stage it is not a commitment) please let me know at dsaltz@bgu.ac.il. Acceptance is first-come-first-serve.