



Close-Kin Mark-Recapture introductory course

Instructor: Mark Bravington (CSIRO, Tasmania)

Dates: 13 & 14 June 2018

Location: Ifremer, Nantes (France)

Close-kin mark-recapture (CKMR) is a revolutionary tool for assessing wild populations; it can estimate absolute abundance, mortality rates, spatial structure, and other demographic parameters. CKMR starts by using state-of-the-art genotyping technology to identify pairs of close relatives (parent-offspring pairs, and half-sibling pairs), then applies mark-recapture principles to the number and pattern of relationships found. It can be implemented just using samples from dead animals (though it does not compel you to kill the animals, either) and has widespread application in commercial fisheries, by-catch, hunting, and conservation settings.

This two-day introductory course on how to implement CKMR is aimed at wildlife/fisheries statisticians and quantitative ecologists (say, people who would be willing to program a mark-recapture model "from scratch"). CKMR is still fairly new, and implementation is still under development--- and it can be fairly complicated to get all the details right in real applications. This course therefore focuses on concepts and examples, rather than on practical exercises; nevertheless, laptops are recommended.

Programme

- Introduction: scope and motivation for CKMR
- Principles of Parent-Offspring CKMR
- Example cases and simple code
- What could go wrong?
- Half-Sibling Pairs
- Estimation and identifiability
- Design
- Genotyping and kin-finding

The course is free, but registration is necessary.

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