

第 116 回 談話会

国際水研 第 116 回 所内談話会

日 時 : 2017 年 3 月 16 日 (木) 14:00~16:00

場 所 : 国際水研会議室「富士」(清水庁舎 本館 2 階)

講 演 者 : Dr. Mark Bravington (CSIRO, Hobart)

講演内容 : Close-Kin モデルの魚類を含む野生生物への応用

タイトル : Close-Kin Mark-Recapture for fisheries and wildlife management

Abstract: Throughout the history of fisheries management and marine conservation, how to reliably estimate the absolute abundance of a population has been a difficult question, often with no satisfactory answer. Beginning in 2006, CSIRO has pioneered a completely new way to tackle that question: Close-Kin Mark-Recapture. We start by using modern genetics to find pairs of close relatives (e.g. parent-and-offspring) in collections of tissue samples from dead animals, or biopsies from live ones. Then the number of pairs found, and their arrangement in space and time, can be analysed in a modified mark-recapture framework for estimating not just absolute abundance, but also survival rates, fecundity, and connectivity. When Close-Kin Mark-Recapture is possible, it bypasses the need to rely on problematic and/or expensive data sources such as catch-rates, direct abundance surveys, and individual mark-release-recapture. In this talk I will explain the basic ideas, give examples including bluefin tuna and great white sharks, and discuss challenges and scope of this powerful new technique.

講演者 : Dr. Richard Hillary (CSIRO, Hobart)

講演内容 : ミナママグロ資源回復計画のための管理方策における歴史的過程

タイトル : Integrating past, present and future into a fully evaluated management procedure recovery plan for southern bluefin tuna

Abstract: The dynamics of the Southern Bluefin Tuna (SBT) population, fishery, and management process have undergone large changes over the past 60 or so years. Using 2006 as a crucial pivot point in time I will outline what led to the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) choosing the Management Procedure (MP) route to try and rebuild the stock, what changes have occurred since the 2006 CCSBT meetings and outcomes, and where the CCSBT is going in the future to rebuild the stock.

References

Bravington et al. (2016) *Stat. Sci.* 31(2), 259–274

Bravington et al. (2016) *Nat. Commun.* 7, 13162 doi: 10.1038/ncomms13162 DOI: 10.1038/ncomms13162

Hillary et al. (2016) *Management Science in Fishery* (Edwards and Dankel eds), 147-162.

Hillary et al. (2016) *Fish Fisheries*, 17(2), 469–482.