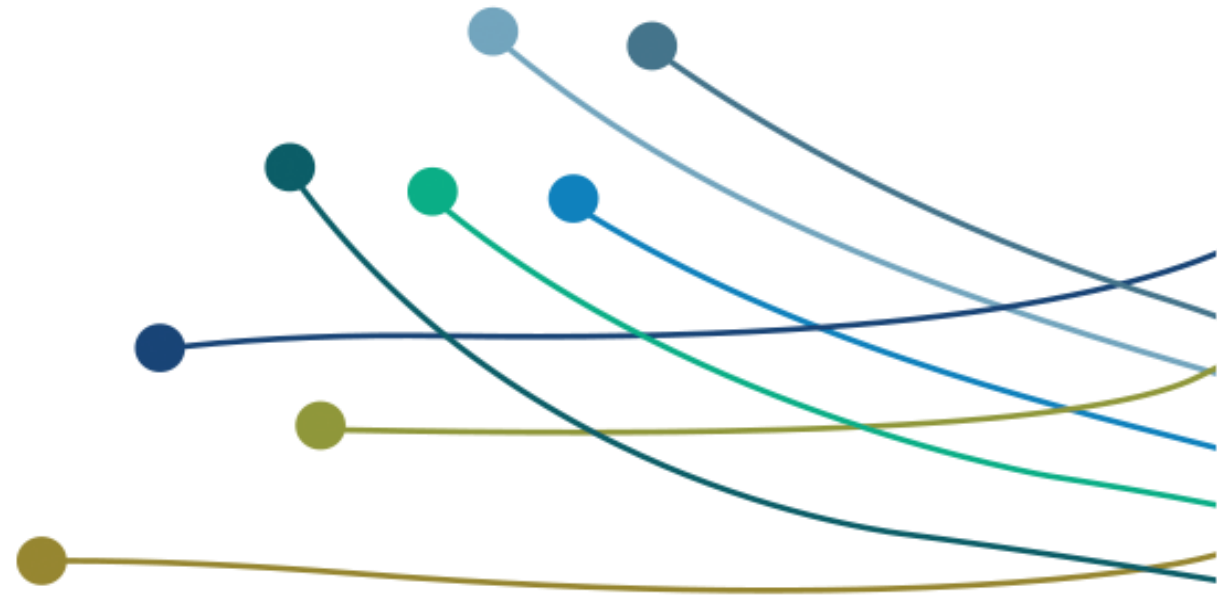


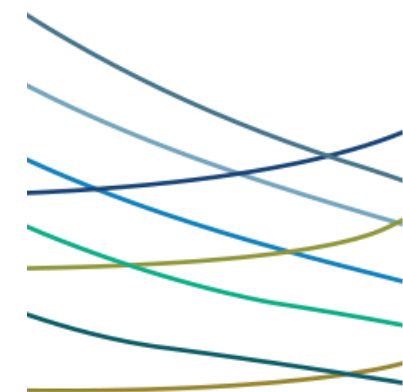
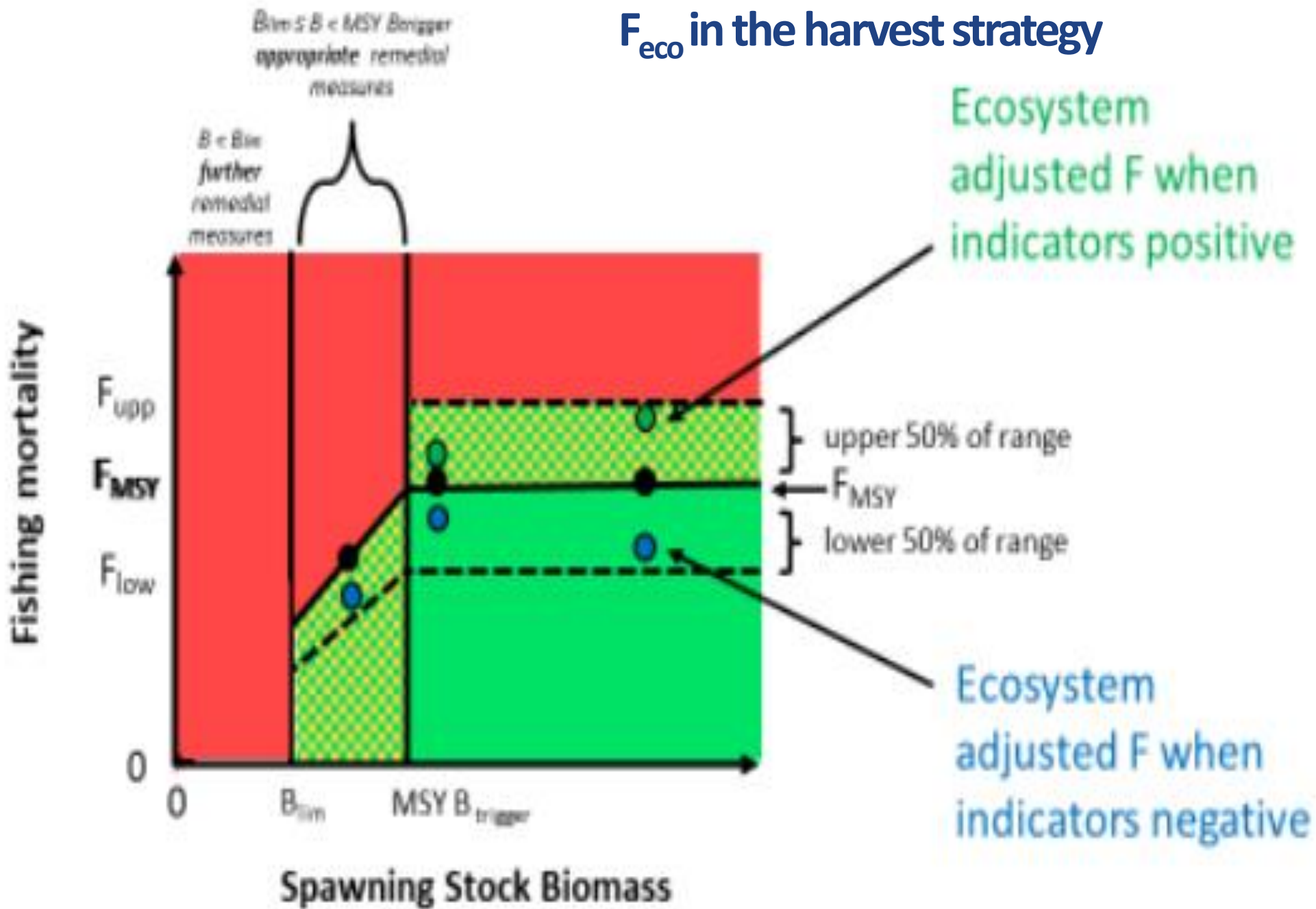
WKIrish and Feco Where have we got to?

For NWWAC

Dave Reid

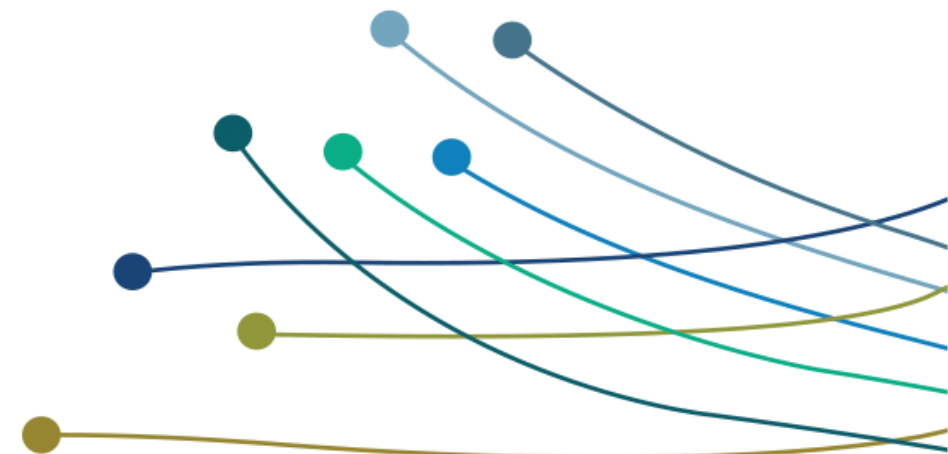


F_{eco} in the harvest strategy

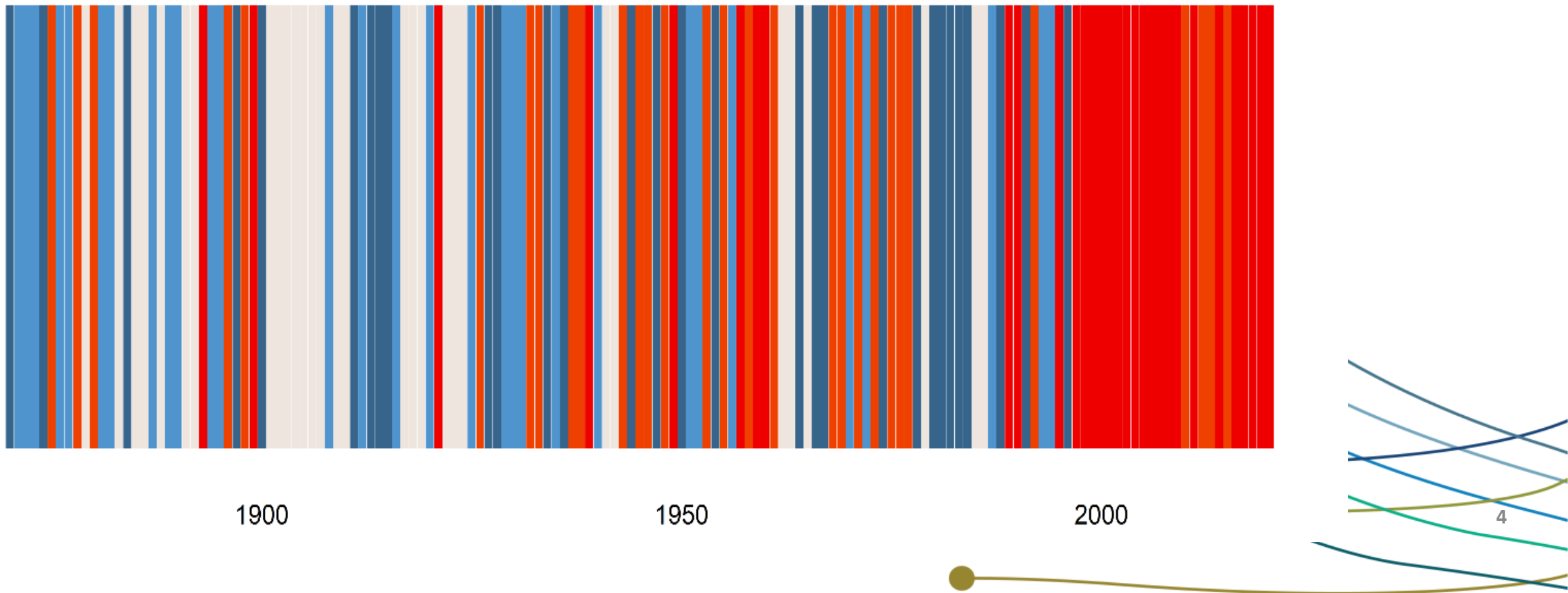


Developments on use of F_{eco} from the recent Benchmark assessment for Irish Sea cod

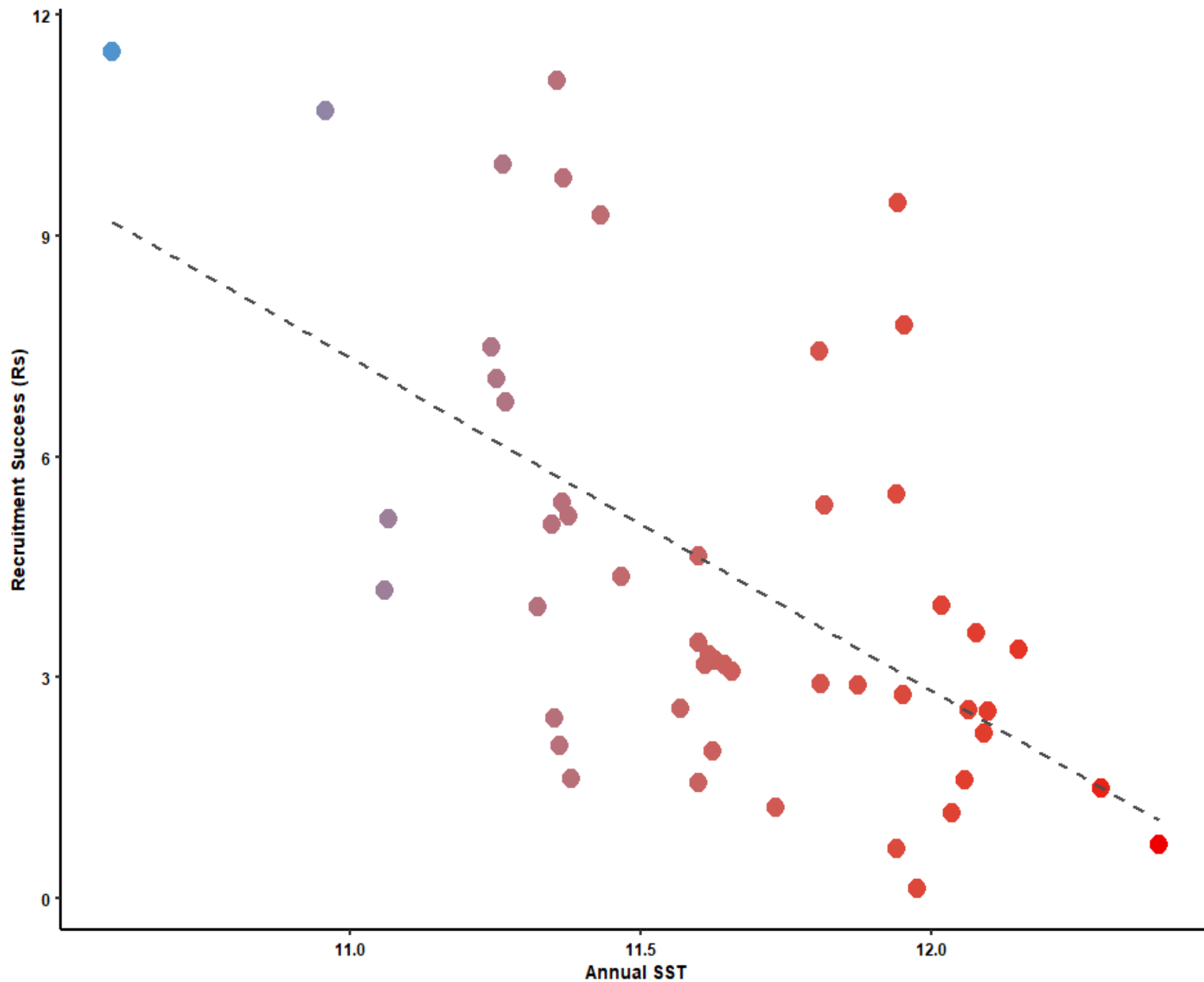
Thanks to Matt Lundey at AFBI



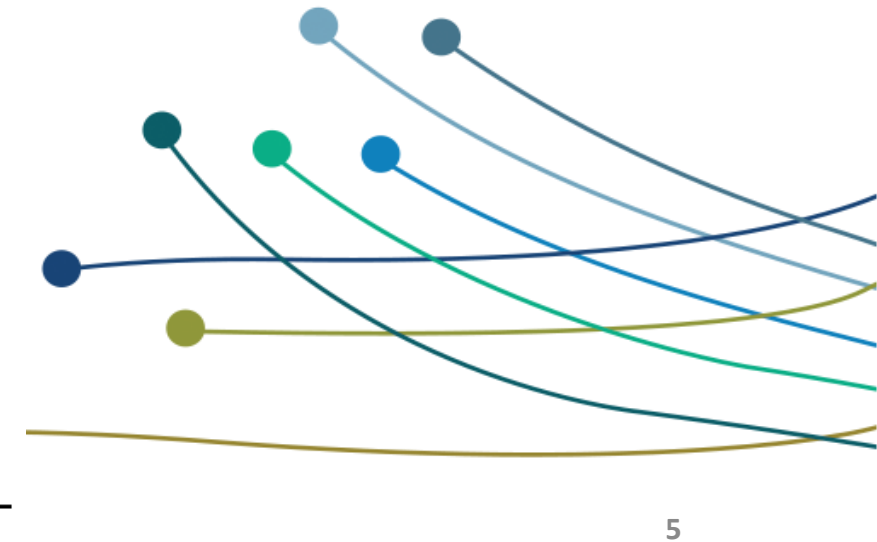
Temperature change in the Irish Sea since 1870



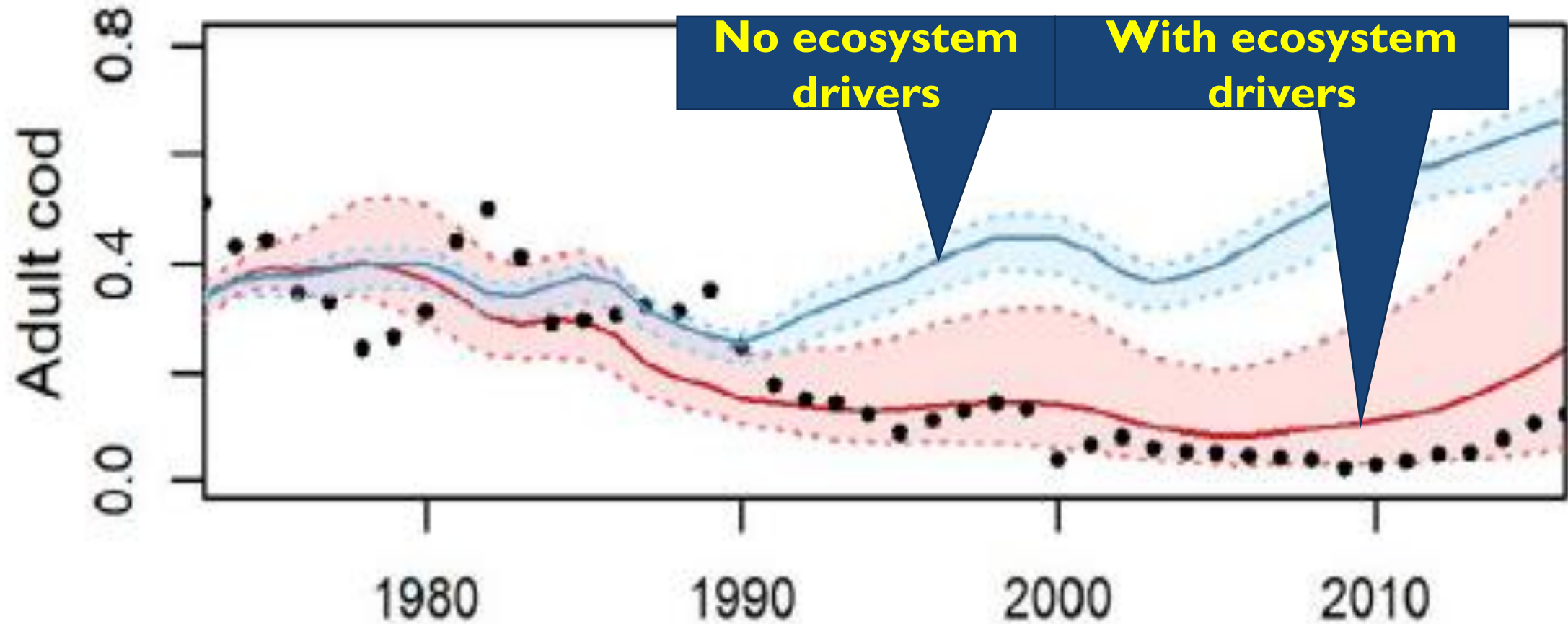
Irish Sea Cod Recruitment and SST



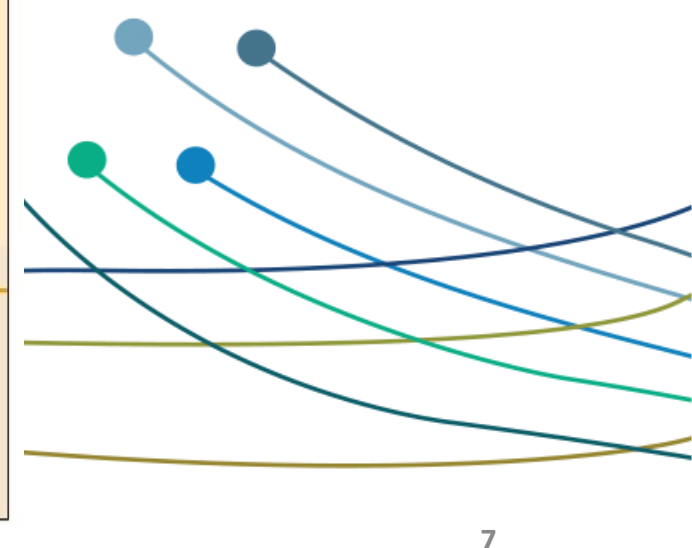
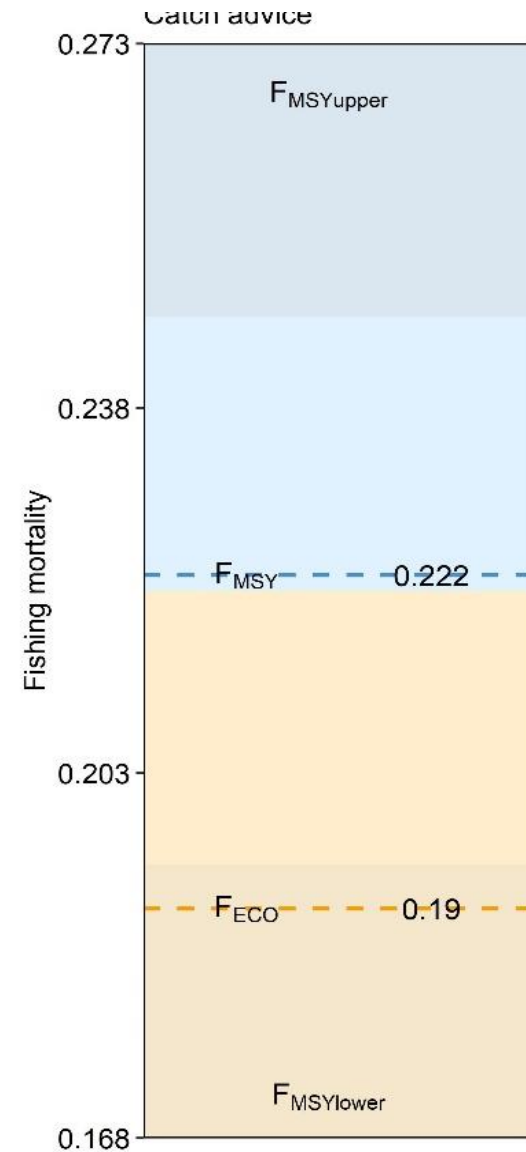
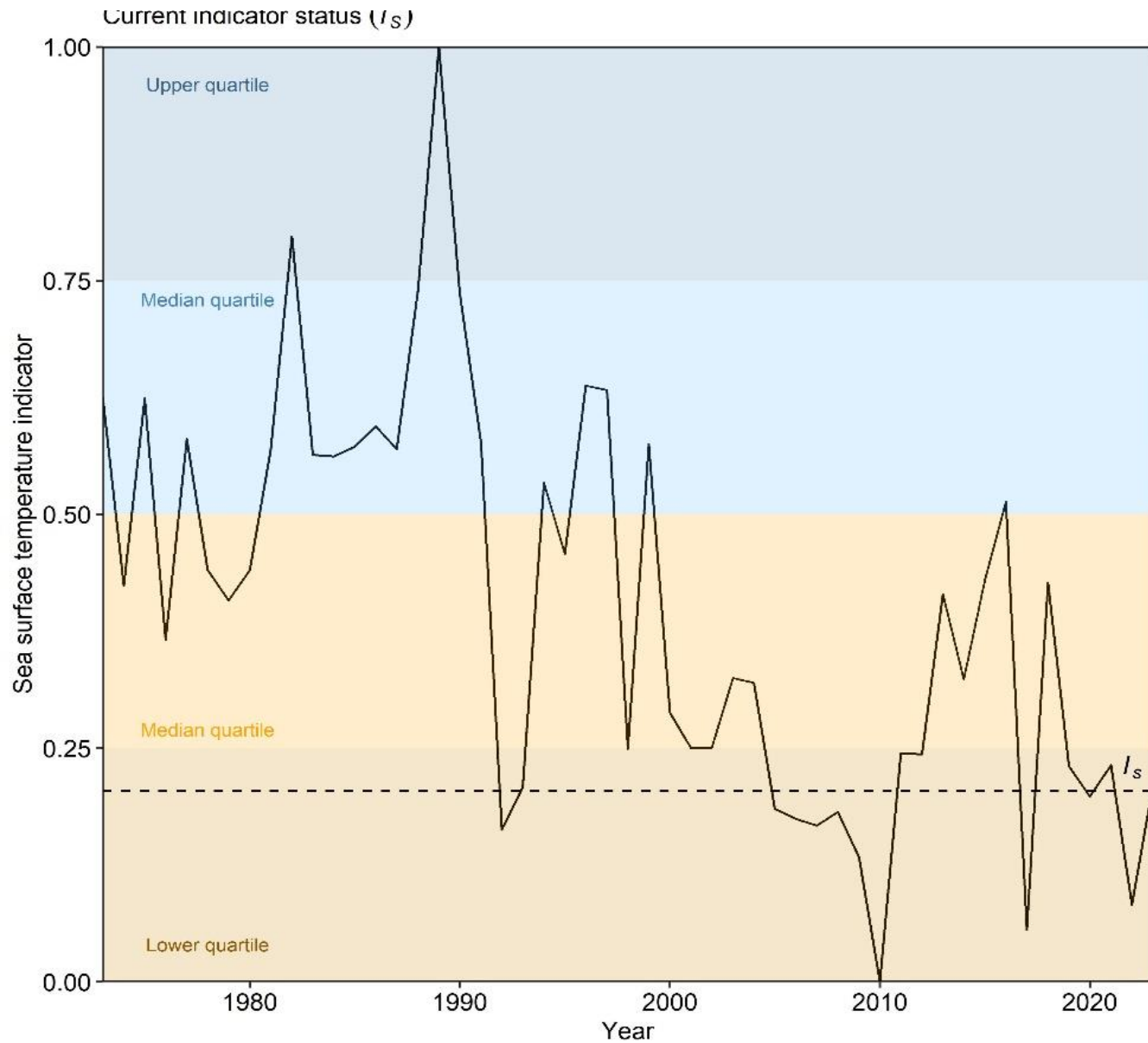
**Negative relationship
between Irish Sea cod
recruitment and
temperature**

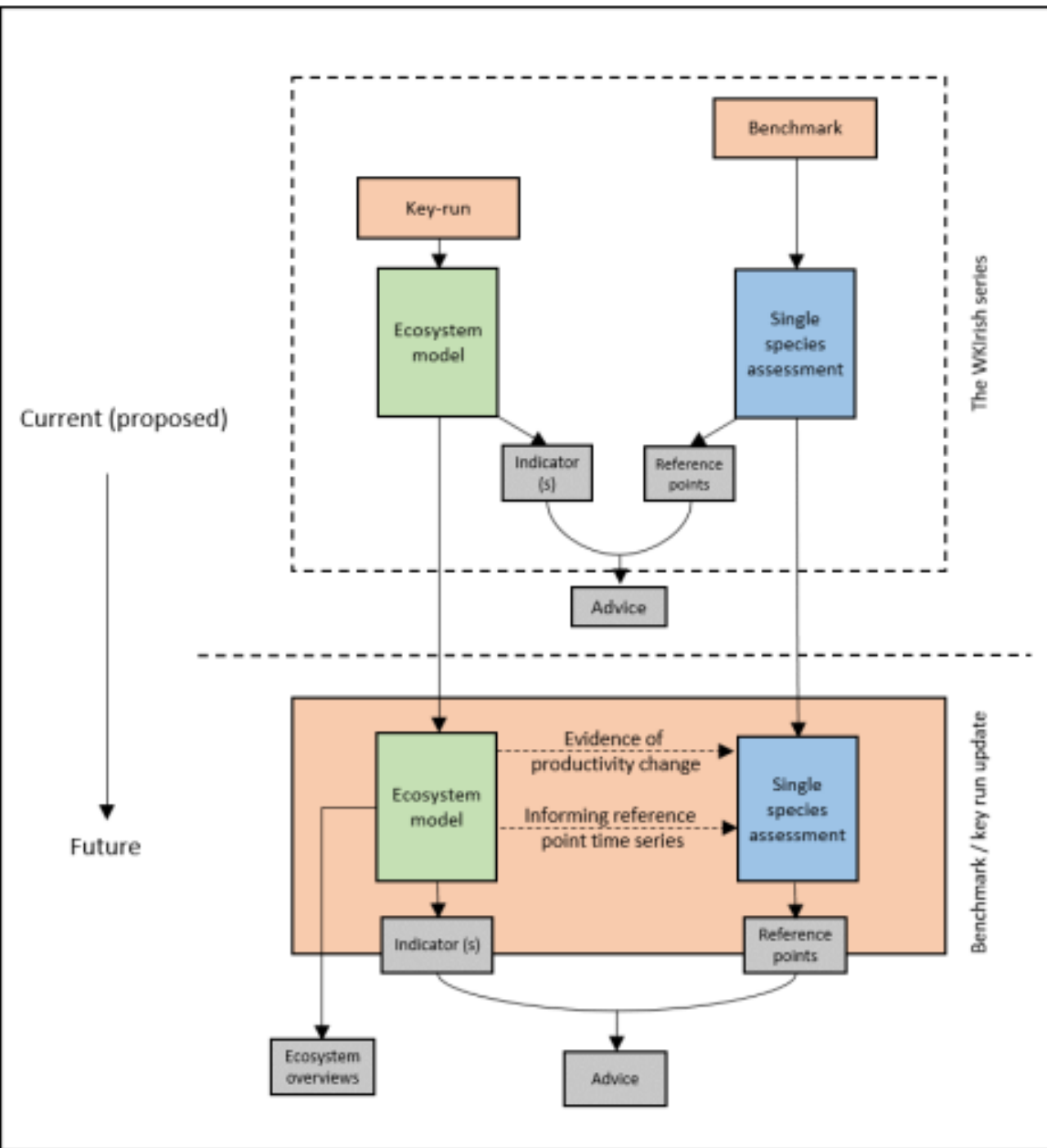


Modelled biomass trend in cod with and without ecosystem drivers

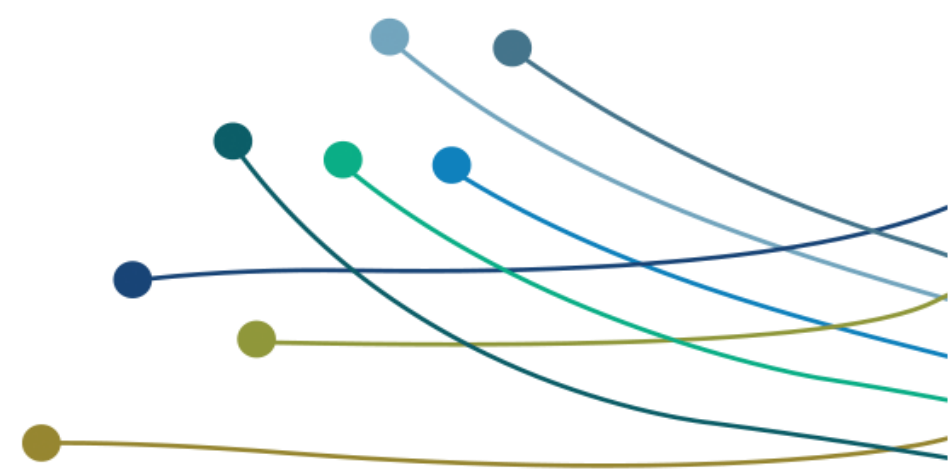


F_{eco} based on current temperature status and F_{msy} ranges





A framework for using F_{eco} now and in the future



ICES framework for using F_{eco} now and in the future

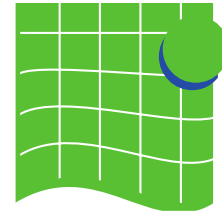
ICES WKREF2 recommendations Workshop on guidelines for reference points

ICES guidelines to include the possibility of using the Feco approach to adjust F based on ecosystem model information:

- The revised F should not exceed Fp05
- The ecosystem model to be reviewed as a Key Run by WGSAM
- The implementation should be evaluated and reviewed at a benchmark process.



THANK
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