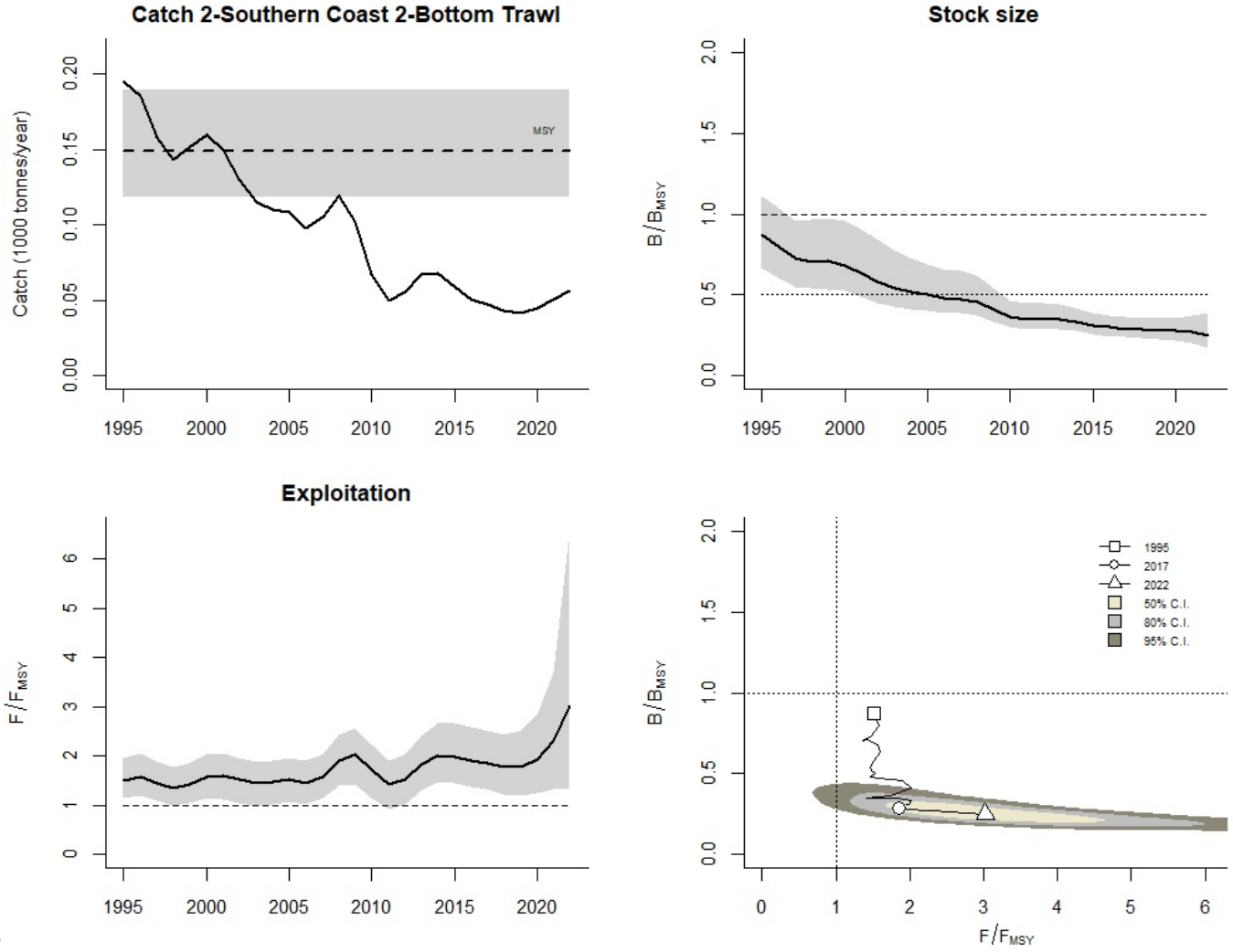
Octopus

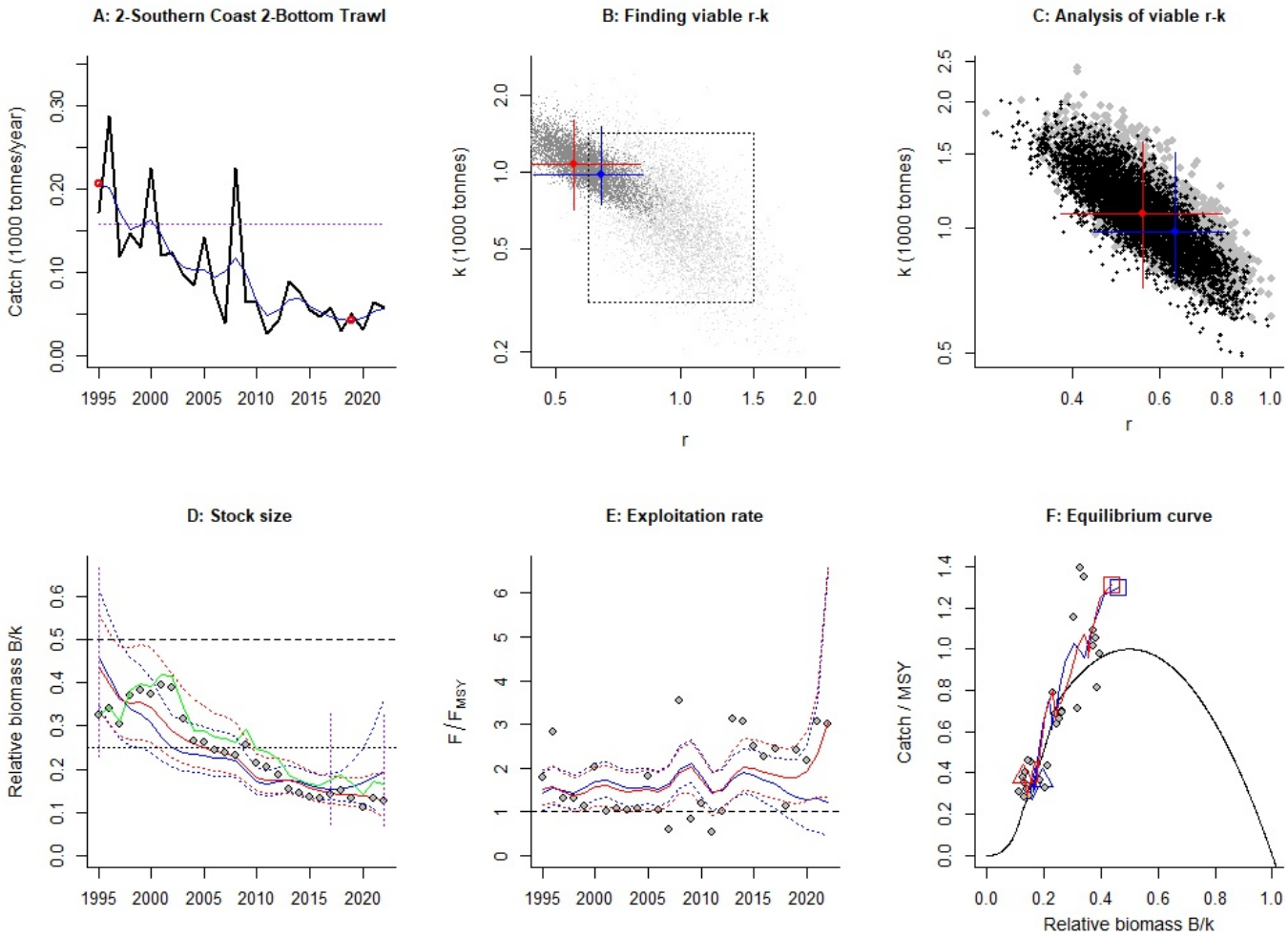
Species: *Octopus vulgaris*, Stock code: 2-Southern Coast 2-Bottom Trawl
Region: Iberia
Marine Ecoregion: Portugal
Reconstructed catch data used from years 1995 - 2020
For figure captions and method see http://www.seaaroundus.org/cmsy-method



extext

Results for management (based on BSM analysis)

Fmsy = 0.29, 95% CL = 0.194 - 0.42 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.13, 95% CL = 0.0865 - 0.188 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 0.157, 95% CL = 0.126 - 0.2; Bmsy = 0.541, 95% CL = 0.375 - 0.82 (1000 tonnes)
Biomass in last year = 0.122, 95% CL = 0.075 - 0.193 (1000 tonnes)
B/Bmsy in last year = 0.223, 95% CL = 0.15 - 0.324
Fishing mortality in last year = 0.315, 95% CL =0.182 - 0.553
F/Fmsy = 2.44, 95% CL = 1.14 - 5.39
Comment:



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Results of CMSY analysis conducted in JAGS

r = 0.661, 95% CL = 0.452 - 0.824; k = 0.936, 95% CL = 0.735 - 1.45 (1000 tonnes)
MSY = 0.155, 95% CL = 0.126 - 0.192 (1000 tonnes/year)
Relative biomass last year = 0.166 k, 95% CL = 0.0706 - 0.313
Exploitation F/(r/2) in last year = 1.35

Results from Bayesian Schaefer model using catch and CPUE

r = 0.58, 95% CL = 0.387 - 0.84; k = 1.08, 95% CL = 0.749 - 1.64
r-k log correlation = -0.815
MSY = 0.157, 95% CL = 0.126 - 0.2 (1000 tonnes/year)
Relative biomass in last year = 0.166 k, 95% CL = 0.0706 - 0.313
Exploitation F/(r/2) in last year = 0.609
q = 13.6, 95% CL = 9.41 - 19.1
Prior range of q = 3.82 - 67.4
Relative abundance data type = CPUE
Prior initial relative biomass = 0.229 - 0.665 default
Prior intermediate relative biomass = 0.0727 - 0.333 in year 2011 default
Prior final relative biomass = 0.0593 - 0.305, default
Prior range for r = 0.6 - 1.5 default, prior range for k = 0.316 - 1.39 (1000 tonnes) default
Source for relative biomass:
DGRM