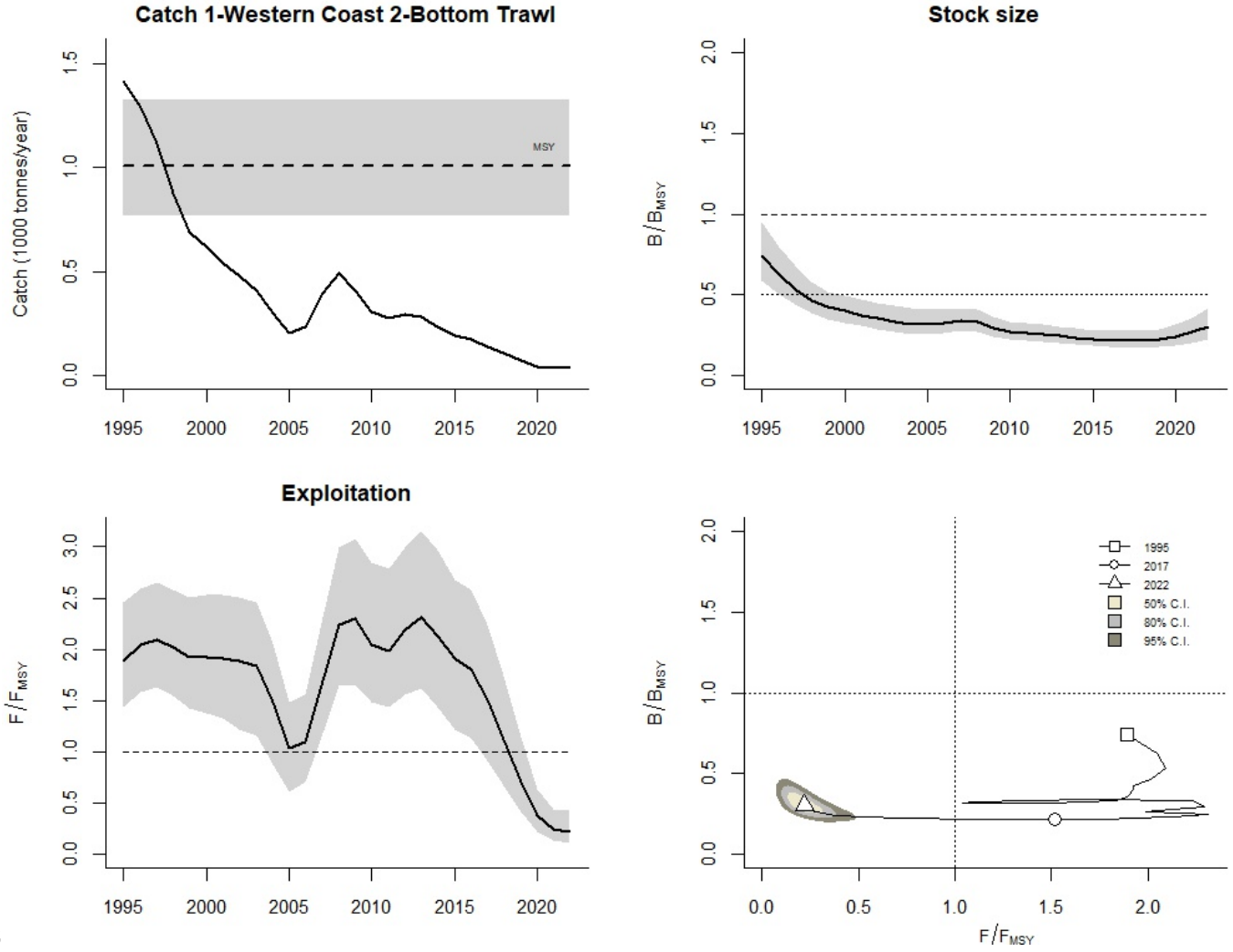
Octopus

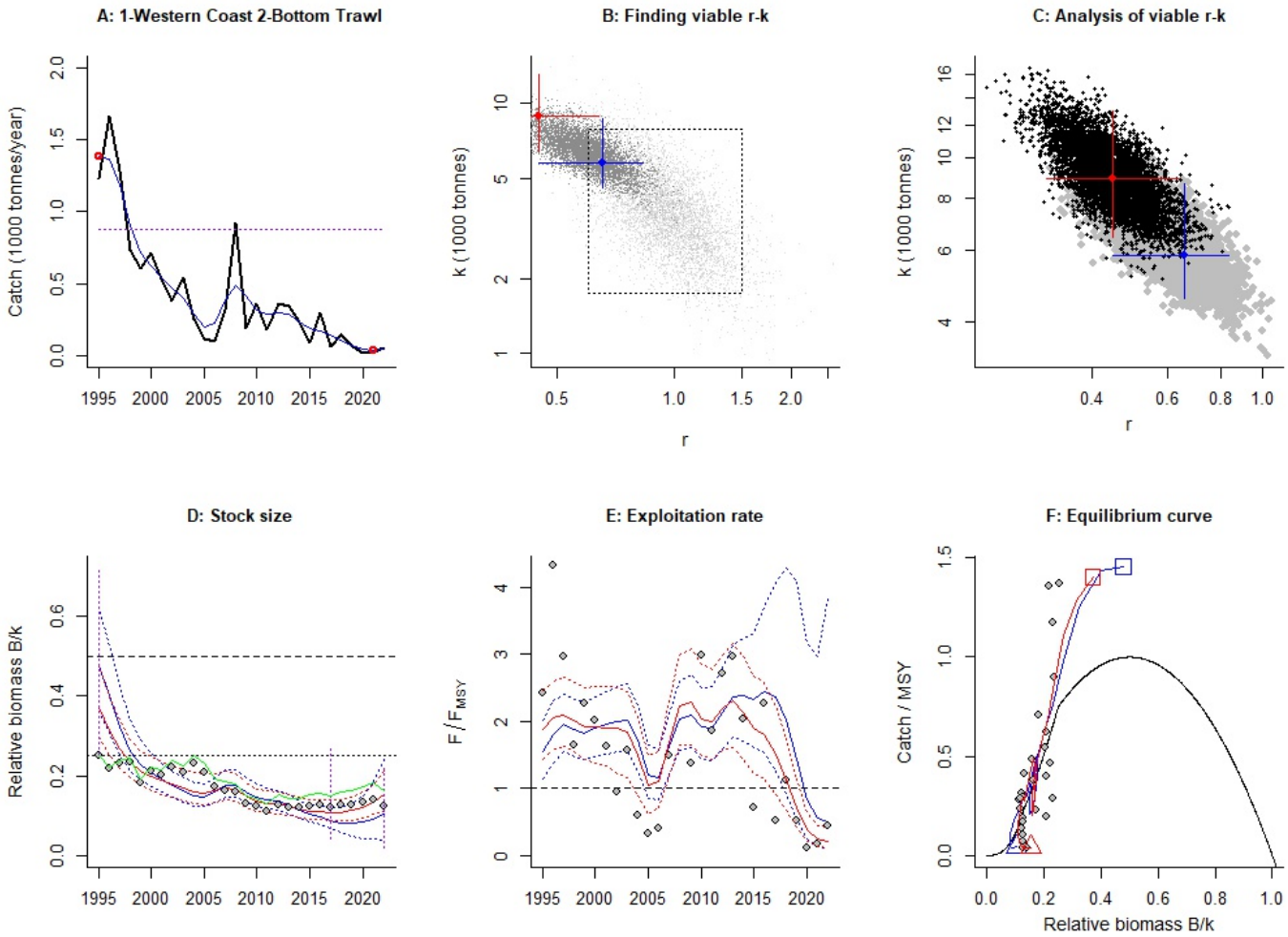
Species: *Octopus vulgaris*, Stock code: 1-Western Coast 2-Bottom Trawl
Region: Iberia
Marine Ecoregion: Portugal
Reconstructed catch data used from years 1995 - 2021
For figure captions and method see http://www.seaaroundus.org/cmsy-method



extext

Results for management (based on BSM analysis)

Fmsy = 0.235, 95% CL = 0.162 - 0.341 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.149, 95% CL = 0.102 - 0.215 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 0.991, 95% CL = 0.748 - 1.34; Bmsy = 4.17, 95% CL = 2.98 - 6.15 (1000 tonnes)
Biomass in last year = 1.33, 95% CL = 0.875 - 2.03 (1000 tonnes)
B/Bmsy in last year = 0.316, 95% CL = 0.228 - 0.433
Fishing mortality in last year = 0.0222, 95% CL =0.0133 - 0.037
F/Fmsy = 0.149, 95% CL = 0.0782 - 0.292
Comment:



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Results of CMSY analysis conducted in JAGS

r = 0.661, 95% CL = 0.459 - 0.834; k = 5.72, 95% CL = 4.49 - 8.48 (1000 tonnes)
MSY = 0.945, 95% CL = 0.74 - 1.21 (1000 tonnes/year)
Relative biomass last year = 0.105 k, 95% CL = 0.0361 - 0.223
Exploitation F/(r/2) in last year = 0.676

Results from Bayesian Schaefer model using catch and CPUE

r = 0.471, 95% CL = 0.323 - 0.681; k = 8.33, 95% CL = 5.97 - 12.3
r-k log correlation = -0.706
MSY = 0.991, 95% CL = 0.748 - 1.34 (1000 tonnes/year)
Relative biomass in last year = 0.105 k, 95% CL = 0.0361 - 0.223
Exploitation F/(r/2) in last year = 0.138
q = 3.95, 95% CL = 2.76 - 5.54
Prior range of q = 1.05 - 18.8
Relative abundance data type = CPUE
Prior initial relative biomass = 0.256 - 0.721 default
Prior intermediate relative biomass = 0.0501 - 0.285 in year 2016 default
Prior final relative biomass = 0.0169 - 0.215, default
Prior range for r = 0.6 - 1.5 default, prior range for k = 1.72 - 7.7 (1000 tonnes) default
Source for relative biomass:
DGRM