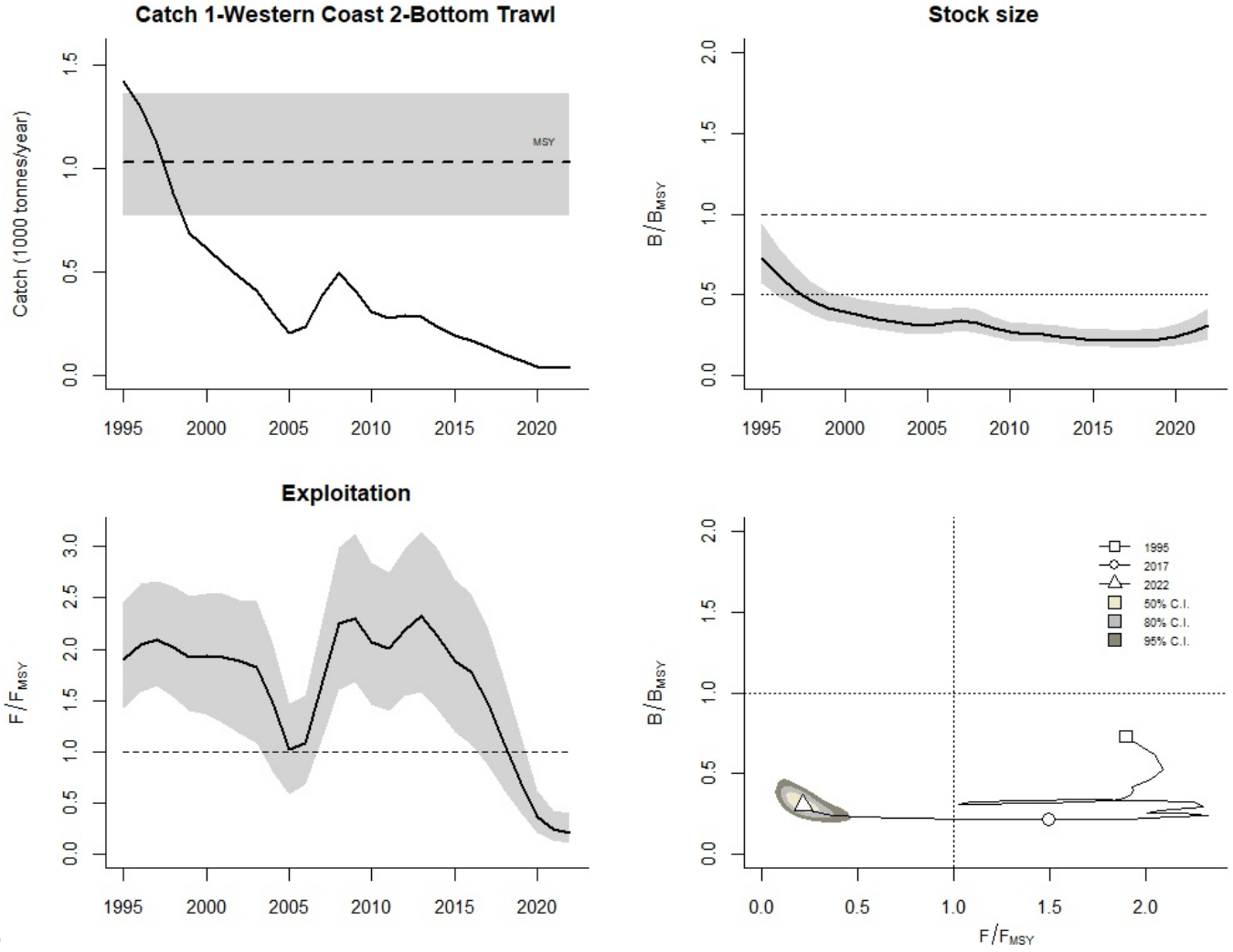
Octopus

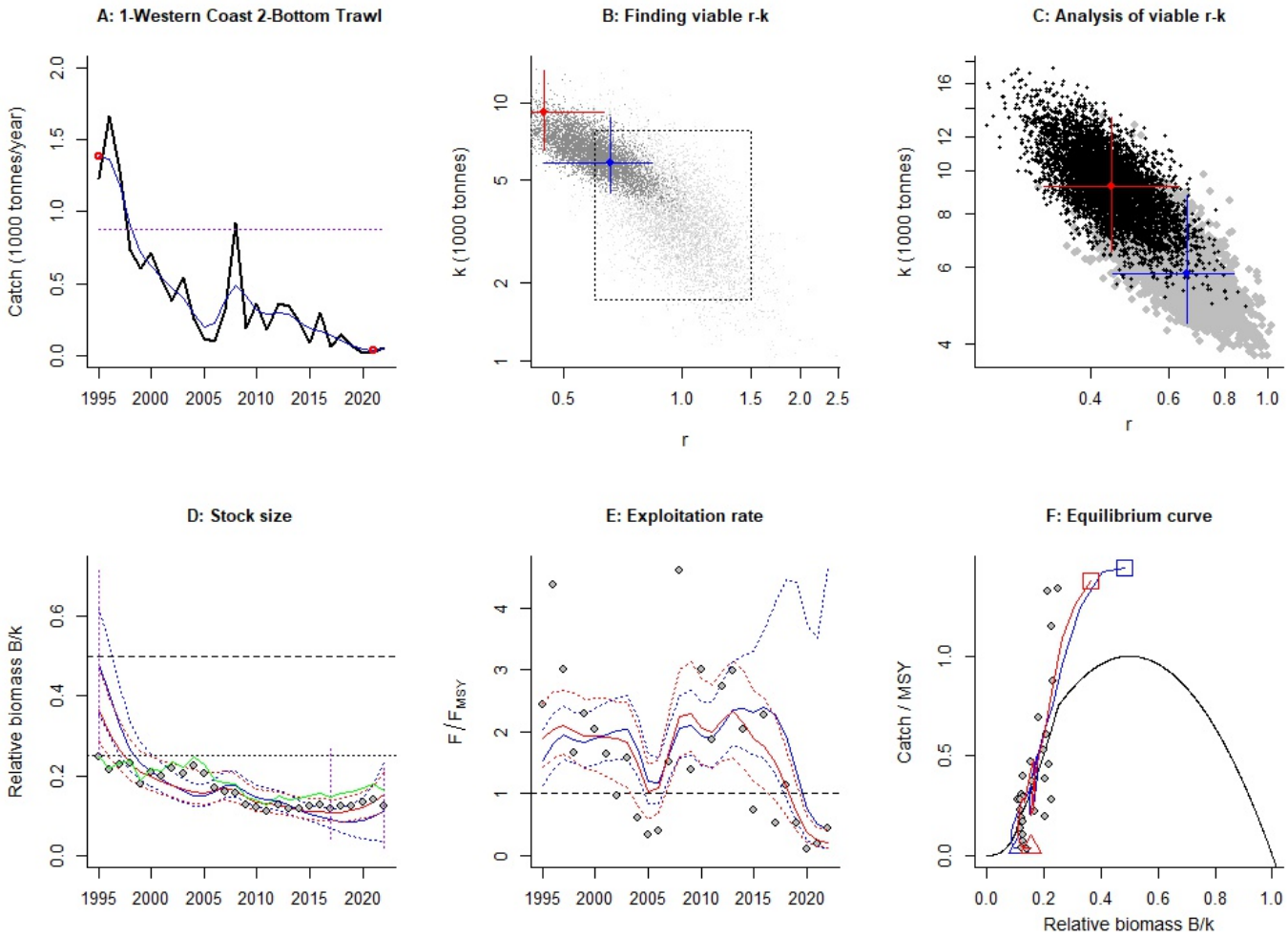
Species: *Octopus vulgaris*, Stock code: 1-Western Coast 2-Bottom Trawl
Region: Iberia
Marine Ecoregion: Portugal
Reconstructed catch data used from years 1995 - 2020
For figure captions and method see http://www.seaaroundus.org/cmsy-method



extext

Results for management (based on BSM analysis)

Fmsy = 0.246, 95% CL = 0.171 - 0.348 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.145, 95% CL = 0.101 - 0.206 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 0.988, 95% CL = 0.751 - 1.3; Bmsy = 4.02, 95% CL = 2.82 - 5.67 (1000 tonnes)
Biomass in last year = 1.19, 95% CL = 0.777 - 1.79 (1000 tonnes)
B/Bmsy in last year = 0.296, 95% CL = 0.216 - 0.412
Fishing mortality in last year = 0.0402, 95% CL =0.0246 - 0.0673
F/Fmsy = 0.28, 95% CL = 0.142 - 0.529
Comment:



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Results of CMSY analysis conducted in JAGS

r = 0.658, 95% CL = 0.452 - 0.838; k = 5.7, 95% CL = 4.44 - 8.67 (1000 tonnes)
MSY = 0.938, 95% CL = 0.74 - 1.2 (1000 tonnes/year)
Relative biomass last year = 0.113 k, 95% CL = 0.0346 - 0.241
Exploitation F/(r/2) in last year = 0.958

Results from Bayesian Schaefer model using catch and CPUE

r = 0.492, 95% CL = 0.342 - 0.695; k = 8.05, 95% CL = 5.63 - 11.3
r-k log correlation = -0.714
MSY = 0.988, 95% CL = 0.751 - 1.3 (1000 tonnes/year)
Relative biomass in last year = 0.113 k, 95% CL = 0.0346 - 0.241
Exploitation F/(r/2) in last year = 0.0706
q = 4.06, 95% CL = 2.89 - 5.75
Prior range of q = 1.03 - 18.5
Relative abundance data type = CPUE
Prior initial relative biomass = 0.256 - 0.721 default
Prior intermediate relative biomass = 0.0546 - 0.295 in year 2015 default
Prior final relative biomass = 0.0212 - 0.224, default
Prior range for r = 0.6 - 1.5 default, prior range for k = 1.75 - 7.89 (1000 tonnes) default
Source for relative biomass:
DGRM