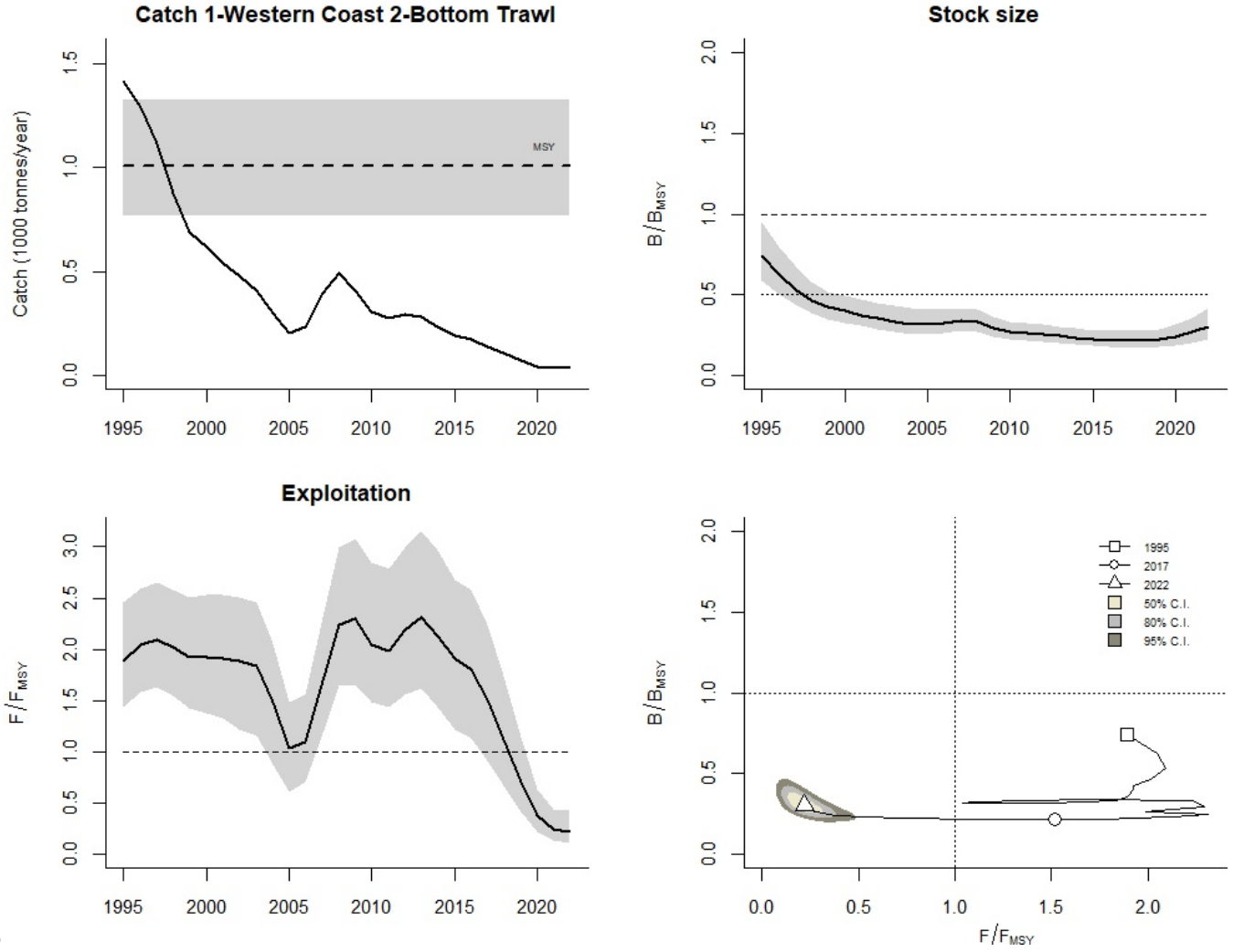
Octopus

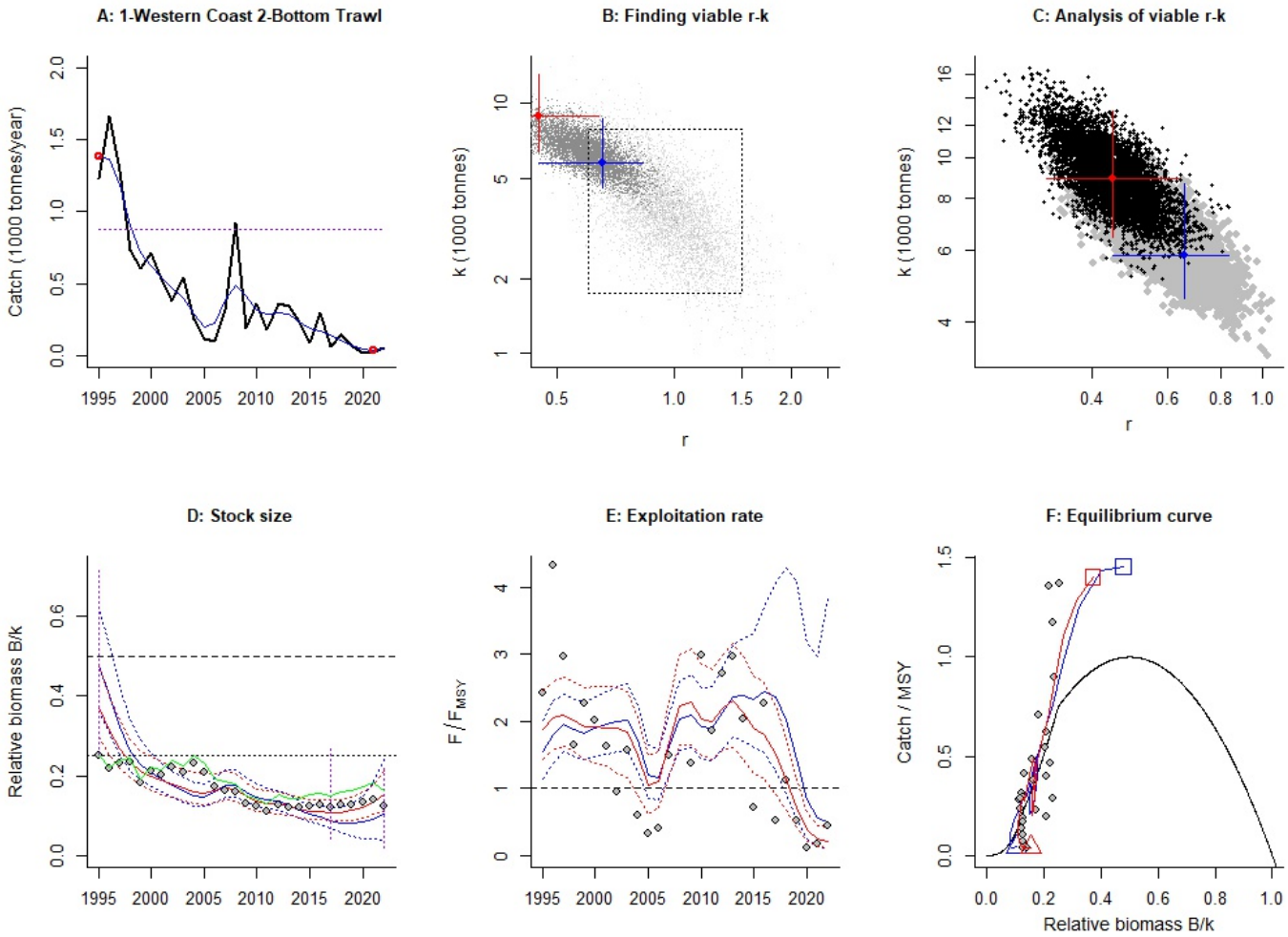
Species: *Octopus vulgaris*, Stock code: 1-Western Coast 2-Bottom Trawl
Region: Iberia
Marine Ecoregion: Portugal
Reconstructed catch data used from years 1995 - 2019
For figure captions and method see http://www.seaaroundus.org/cmsy-method



extext

Results for management (based on BSM analysis)

Fmsy = 0.256, 95% CL = 0.176 - 0.369 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.143, 95% CL = 0.0989 - 0.207 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 1, 95% CL = 0.771 - 1.34; Bmsy = 3.91, 95% CL = 2.8 - 5.71 (1000 tonnes)
Biomass in last year = 1.1, 95% CL = 0.715 - 1.69 (1000 tonnes)
B/Bmsy in last year = 0.28, 95% CL = 0.201 - 0.394
Fishing mortality in last year = 0.0872, 95% CL =0.0524 - 0.148
F/Fmsy = 0.611, 95% CL = 0.305 - 1.24
Comment:



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Results of CMSY analysis conducted in JAGS

r = 0.663, 95% CL = 0.461 - 0.84; k = 5.65, 95% CL = 4.41 - 8.53 (1000 tonnes)
MSY = 0.937, 95% CL = 0.747 - 1.19 (1000 tonnes/year)
Relative biomass last year = 0.125 k, 95% CL = 0.0425 - 0.269
Exploitation F/(r/2) in last year = 1.14

Results from Bayesian Schaefer model using catch and CPUE

r = 0.512, 95% CL = 0.353 - 0.738; k = 7.82, 95% CL = 5.61 - 11.4
r-k log correlation = -0.714
MSY = 1, 95% CL = 0.771 - 1.34 (1000 tonnes/year)
Relative biomass in last year = 0.125 k, 95% CL = 0.0425 - 0.269
Exploitation F/(r/2) in last year = 0.268
q = 4.16, 95% CL = 2.93 - 5.83
Prior range of q = 1.03 - 18.8
Relative abundance data type = CPUE
Prior initial relative biomass = 0.256 - 0.721 default
Prior intermediate relative biomass = 0.0562 - 0.298 in year 2005 default
Prior final relative biomass = 0.0324 - 0.248, default
Prior range for r = 0.6 - 1.5 default, prior range for k = 1.72 - 7.85 (1000 tonnes) default
Source for relative biomass:
DGRM