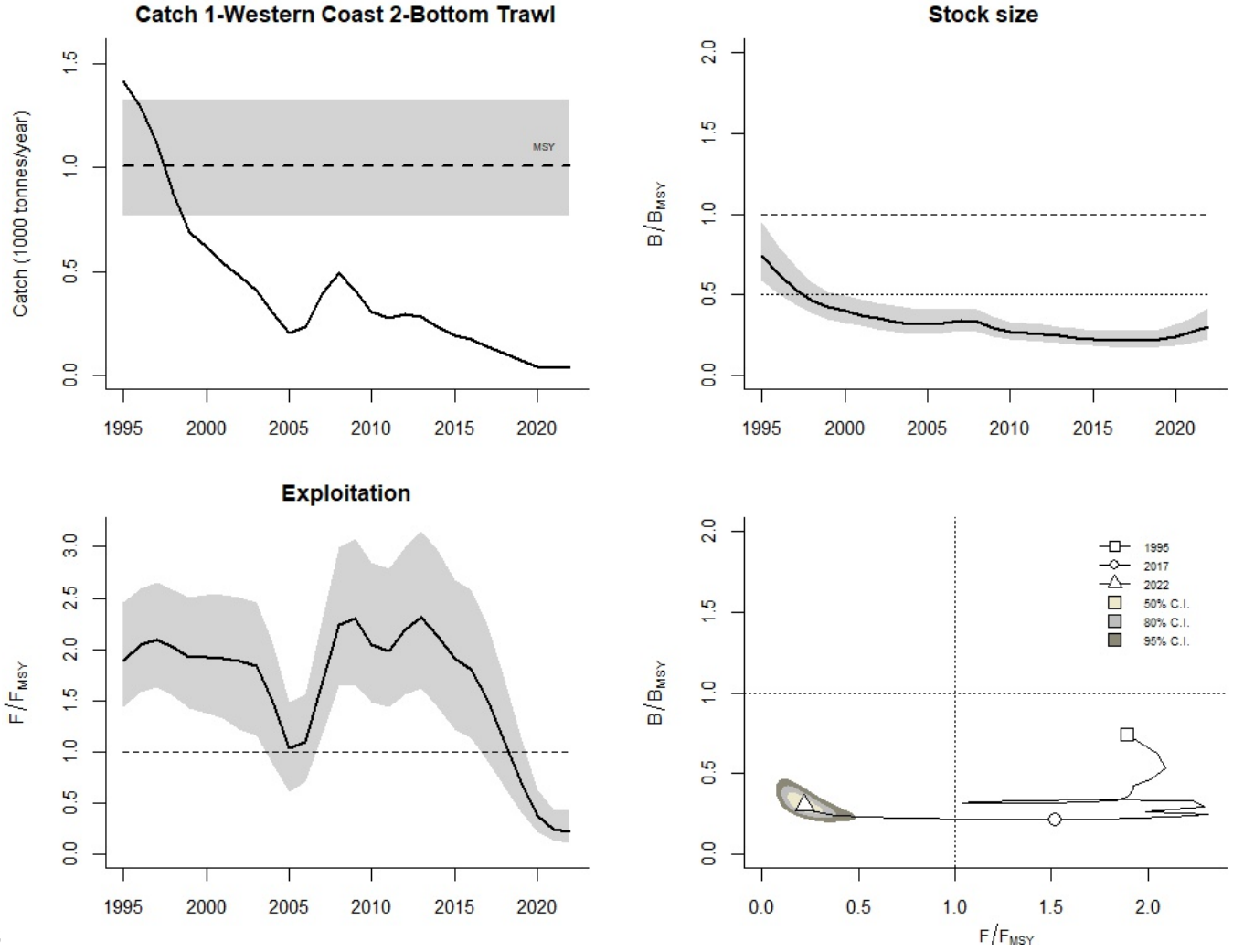
Octopus

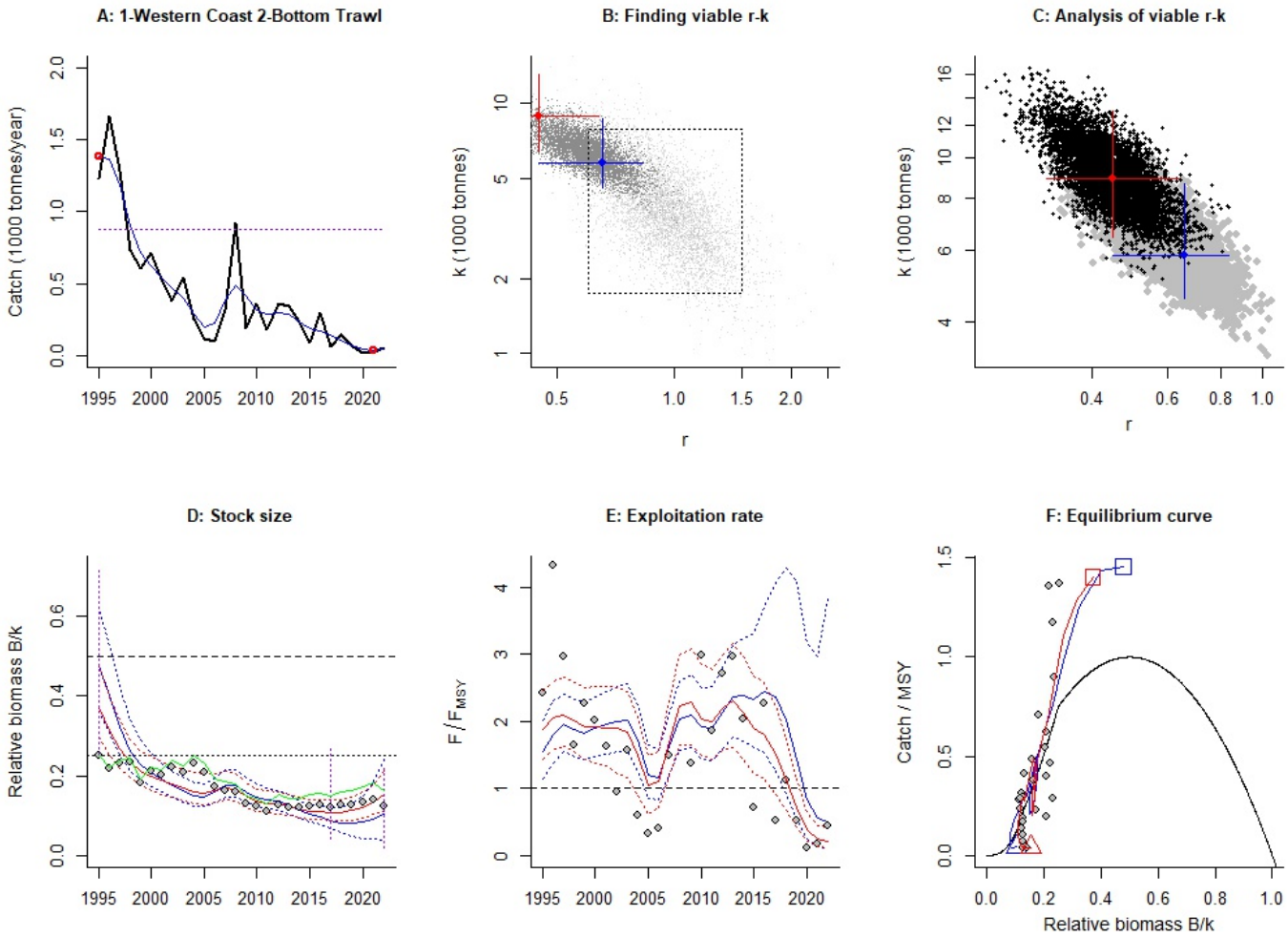
Species: *Octopus vulgaris*, Stock code: 1-Western Coast 2-Bottom Trawl
Region: Iberia
Marine Ecoregion: Portugal
Reconstructed catch data used from years 1995 - 2020
For figure captions and method see http://www.seaaroundus.org/cmsy-method



extext

Results for management (based on BSM analysis)

Fmsy = 0.246, 95% CL = 0.168 - 0.349 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.148, 95% CL = 0.101 - 0.21 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 0.967, 95% CL = 0.744 - 1.29; Bmsy = 3.93, 95% CL = 2.8 - 5.63 (1000 tonnes)
Biomass in last year = 1.19, 95% CL = 0.756 - 1.82 (1000 tonnes)
B/Bmsy in last year = 0.301, 95% CL = 0.215 - 0.413
Fishing mortality in last year = 0.0406, 95% CL =0.0241 - 0.0683
F/Fmsy = 0.275, 95% CL = 0.14 - 0.541
Comment:



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Results of CMSY analysis conducted in JAGS

r = 0.65, 95% CL = 0.446 - 0.829; k = 5.63, 95% CL = 4.44 - 8.49 (1000 tonnes)
MSY = 0.916, 95% CL = 0.731 - 1.15 (1000 tonnes/year)
Relative biomass last year = 0.112 k, 95% CL = 0.0373 - 0.221
Exploitation F/(r/2) in last year = 0.989

Results from Bayesian Schaefer model using catch and CPUE

r = 0.492, 95% CL = 0.335 - 0.698; k = 7.87, 95% CL = 5.6 - 11.3
r-k log correlation = -0.713
MSY = 0.967, 95% CL = 0.744 - 1.29 (1000 tonnes/year)
Relative biomass in last year = 0.112 k, 95% CL = 0.0373 - 0.221
Exploitation F/(r/2) in last year = 0.0729
q = 4.09, 95% CL = 2.87 - 5.77
Prior range of q = 1.05 - 18.9
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 = 1.71 - 7.72 (1000 tonnes) default
Source for relative biomass:
DGRM