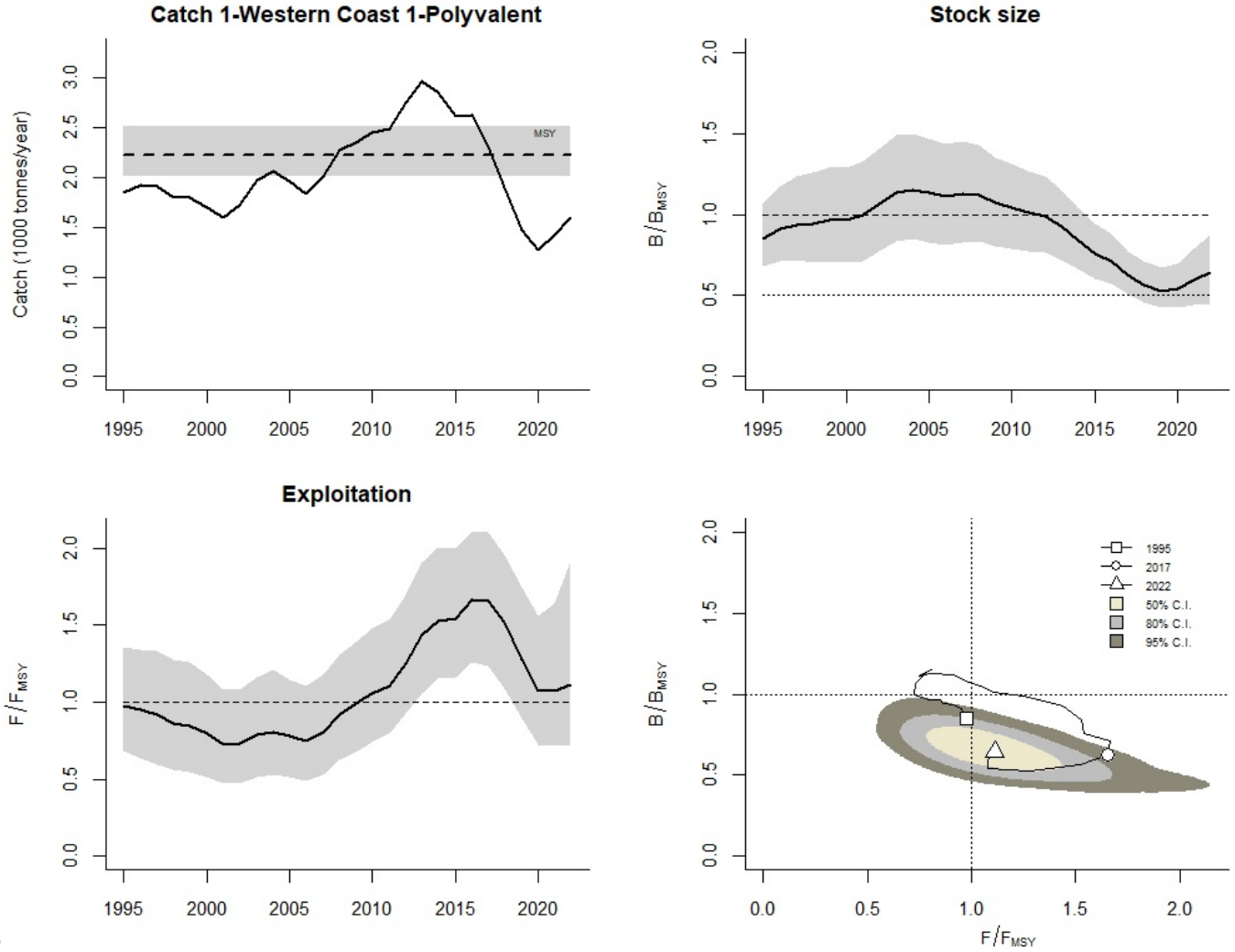
Octopus

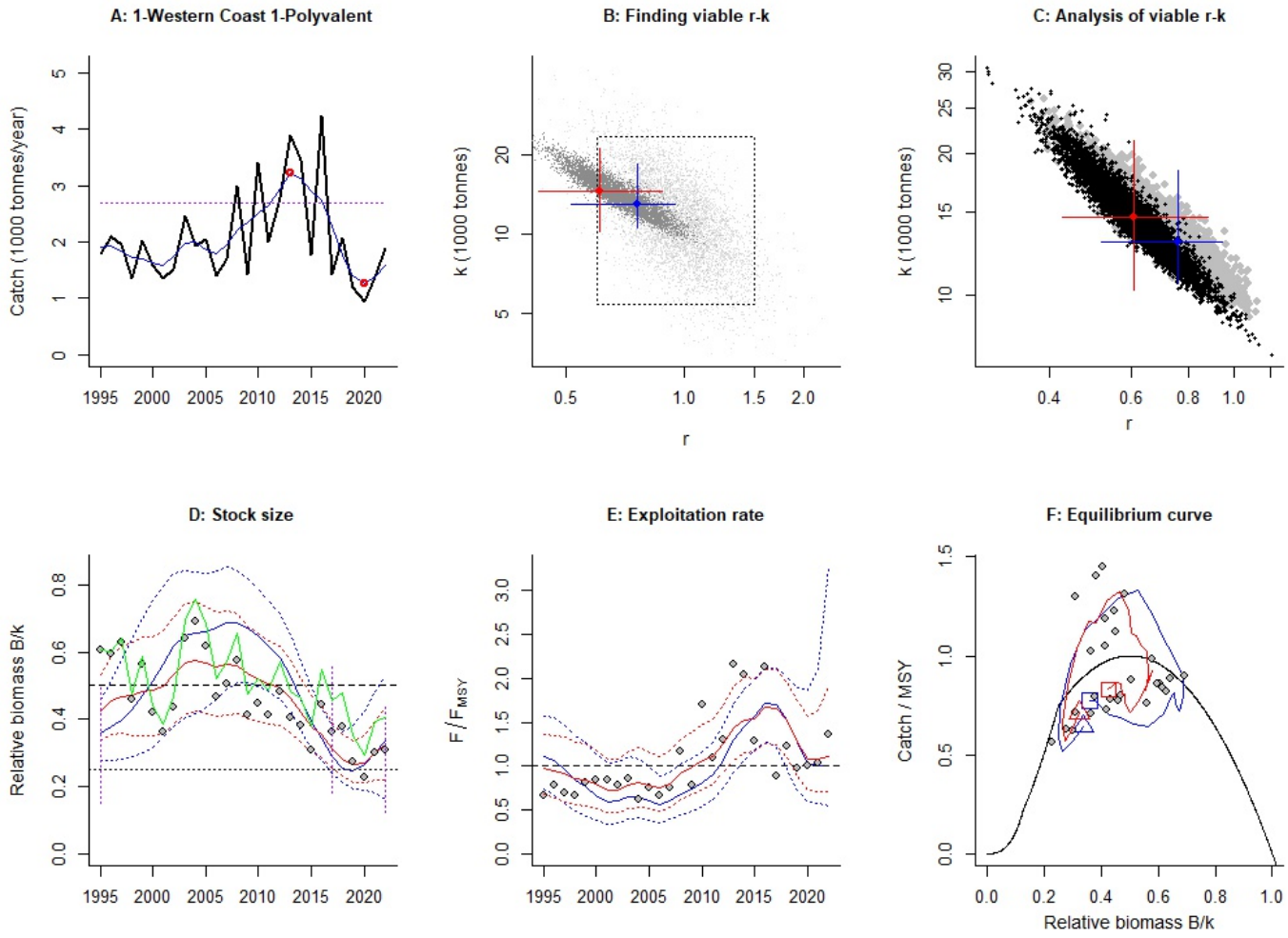
Species: *Octopus vulgaris*, Stock code: 1-Western Coast 1-Polyvalent
Region: Iberia
Marine Ecoregion: Portugal
Reconstructed catch data used from years 1995 - 2022
For figure captions and method see http://www.seaaroundus.org/cmsy-method



extext

Results for management (based on BSM analysis)

Fmsy = 0.304, 95% CL = 0.213 - 0.439 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.304, 95% CL = 0.213 - 0.439 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 2.23, 95% CL = 2.01 - 2.52; Bmsy = 7.32, 95% CL = 5.12 - 10.7 (1000 tonnes)
Biomass in last year = 4.71, 95% CL = 2.93 - 7.17 (1000 tonnes)
B/Bmsy in last year = 0.646, 95% CL = 0.443 - 0.87
Fishing mortality in last year = 0.338, 95% CL =0.203 - 0.582
F/Fmsy = 1.11, 95% CL = 0.715 - 1.92
Comment:



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Results of CMSY analysis conducted in JAGS

r = 0.76, 95% CL = 0.516 - 0.945; k = 13, 95% CL = 10.6 - 18.5 (1000 tonnes)
MSY = 2.46, 95% CL = 2.14 - 2.76 (1000 tonnes/year)
Relative biomass last year = 0.337 k, 95% CL = 0.161 - 0.527
Exploitation F/(r/2) in last year = 1.01

Results from Bayesian Schaefer model using catch and CPUE

r = 0.608, 95% CL = 0.426 - 0.877; k = 14.6, 95% CL = 10.2 - 21.3
r-k log correlation = -0.952
MSY = 2.23, 95% CL = 2.01 - 2.52 (1000 tonnes/year)
Relative biomass in last year = 0.337 k, 95% CL = 0.161 - 0.527
Exploitation F/(r/2) in last year = 1.25
q = 0.426, 95% CL = 0.297 - 0.611
Prior range of q = 0.172 - 3.02
Relative abundance data type = CPUE
Prior initial relative biomass = 0.149 - 0.495 default
Prior intermediate relative biomass = 0.182 - 0.565 in year 2017 default
Prior final relative biomass = 0.122 - 0.438, default
Prior range for r = 0.6 - 1.5 default, prior range for k = 5.4 - 23.6 (1000 tonnes) default
Source for relative biomass:
DGRM