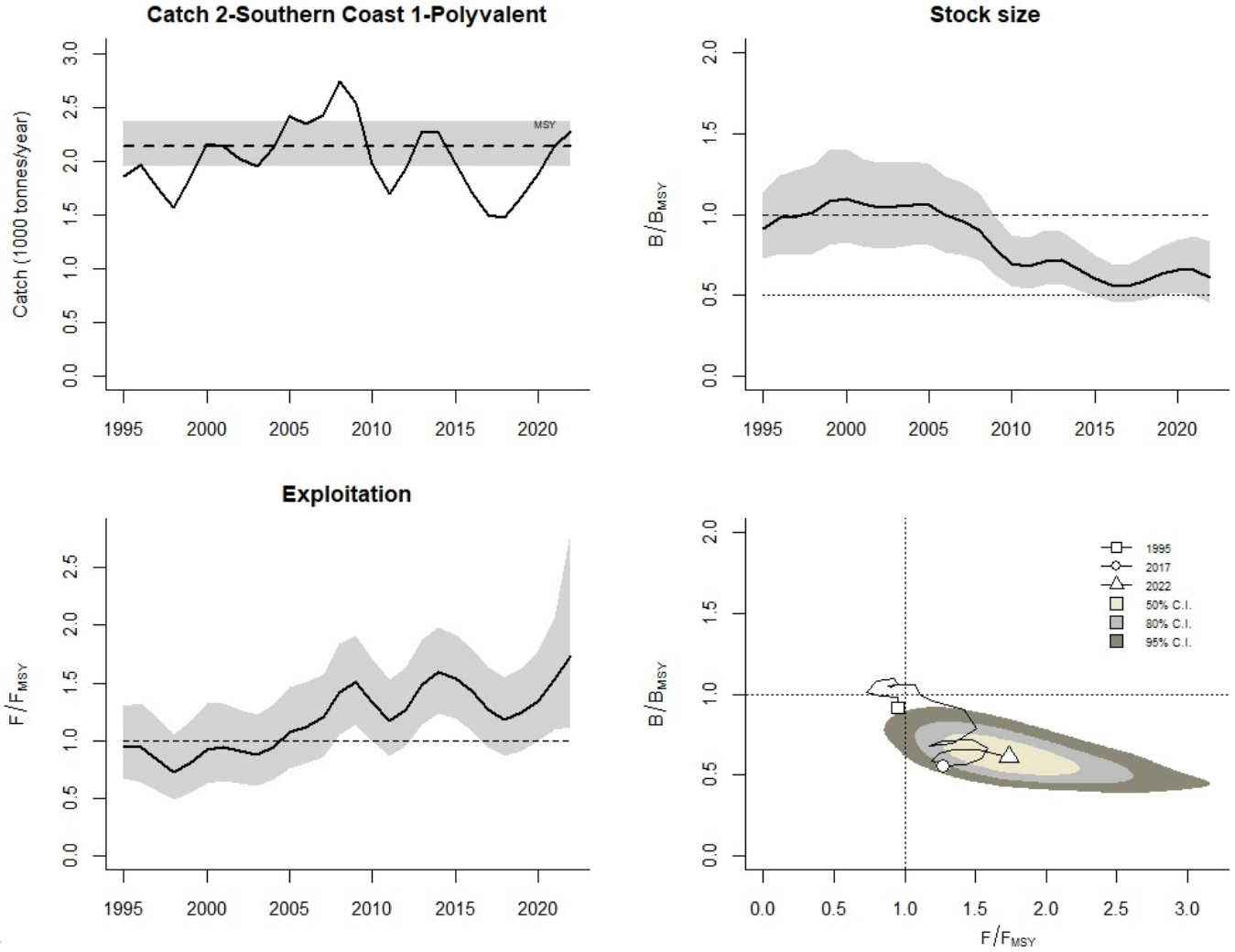
Octopus

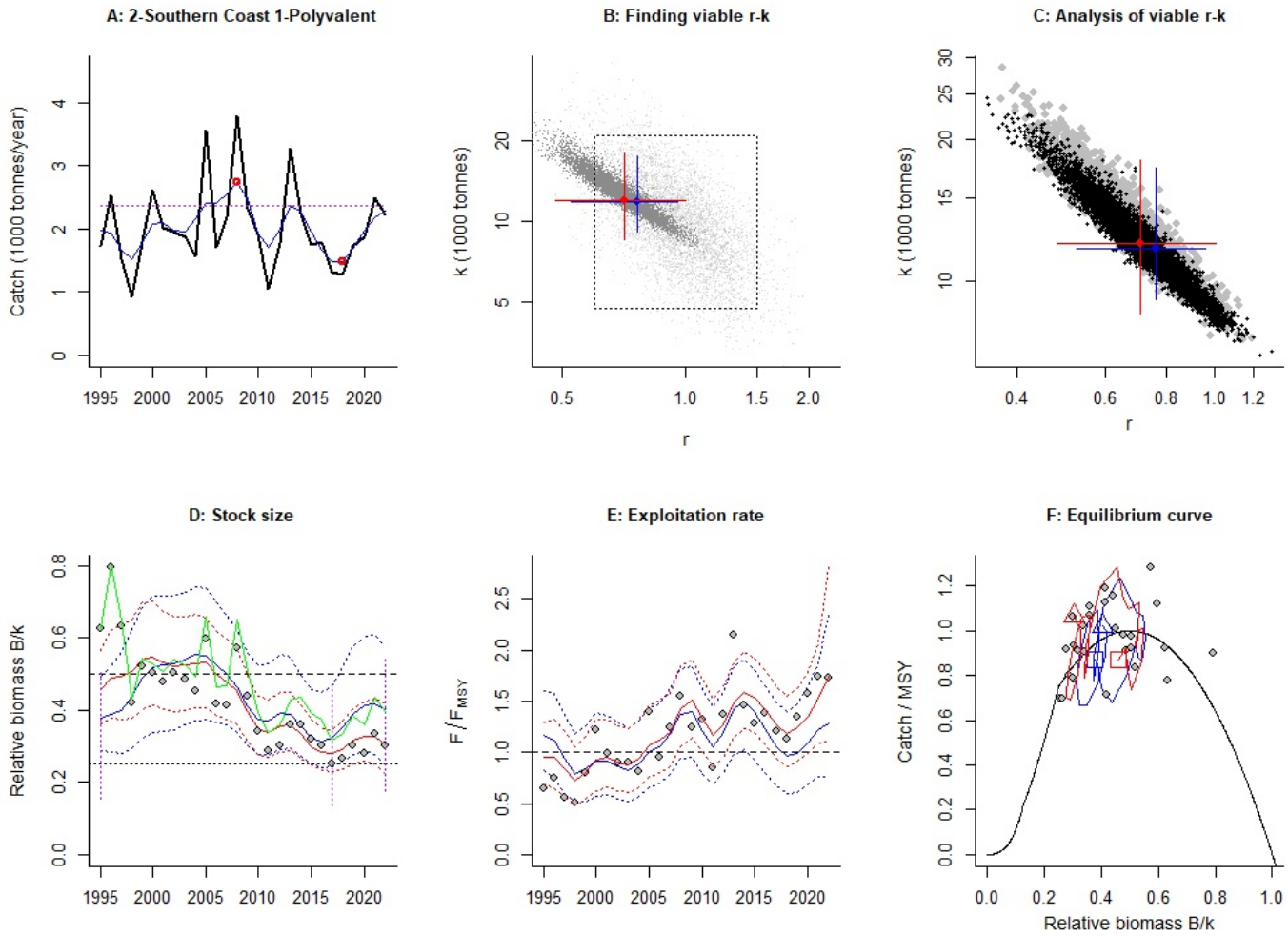
Species: *Octopus vulgaris*, Stock code: 2-Southern Coast 1-Polyvalent
Region: Iberia
Marine Ecoregion: Portugal
Reconstructed catch data used from years 1995 - 2022
For figure captions and method see http://www.seaaroundus.org/cmsy-method



extext

Results for management (based on BSM analysis)

Fmsy = 0.355, 95% CL = 0.241 - 0.502 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.355, 95% CL = 0.241 - 0.502 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 2.14, 95% CL = 1.96 - 2.38; Bmsy = 6.01, 95% CL = 4.27 - 9.06 (1000 tonnes)
Biomass in last year = 3.68, 95% CL = 2.61 - 5.66 (1000 tonnes)
B/Bmsy in last year = 0.612, 95% CL = 0.447 - 0.834
Fishing mortality in last year = 0.62, 95% CL =0.369 - 0.978
F/Fmsy = 1.74, 95% CL = 1.12 - 2.81
Comment:



extext

Results of CMSY analysis conducted in JAGS

r = 0.76, 95% CL = 0.527 - 0.959; k = 11.8, 95% CL = 9.14 - 17.5 (1000 tonnes)
MSY = 2.23, 95% CL = 2 - 2.52 (1000 tonnes/year)
Relative biomass last year = 0.404 k, 95% CL = 0.249 - 0.577
Exploitation F/(r/2) in last year = 1.22

Results from Bayesian Schaefer model using catch and CPUE

r = 0.71, 95% CL = 0.482 - 1; k = 12, 95% CL = 8.53 - 18.1
r-k log correlation = -0.966
MSY = 2.14, 95% CL = 1.96 - 2.38 (1000 tonnes/year)
Relative biomass in last year = 0.404 k, 95% CL = 0.249 - 0.577
Exploitation F/(r/2) in last year = 1.29
q = 0.468, 95% CL = 0.329 - 0.638
Prior range of q = 0.185 - 3.24
Relative abundance data type = CPUE
Prior initial relative biomass = 0.156 - 0.509 default
Prior intermediate relative biomass = 0.138 - 0.472 in year 2017 default
Prior final relative biomass = 0.175 - 0.55, default
Prior range for r = 0.6 - 1.5 default, prior range for k = 4.76 - 20.9 (1000 tonnes) default
Source for relative biomass:
DGRM