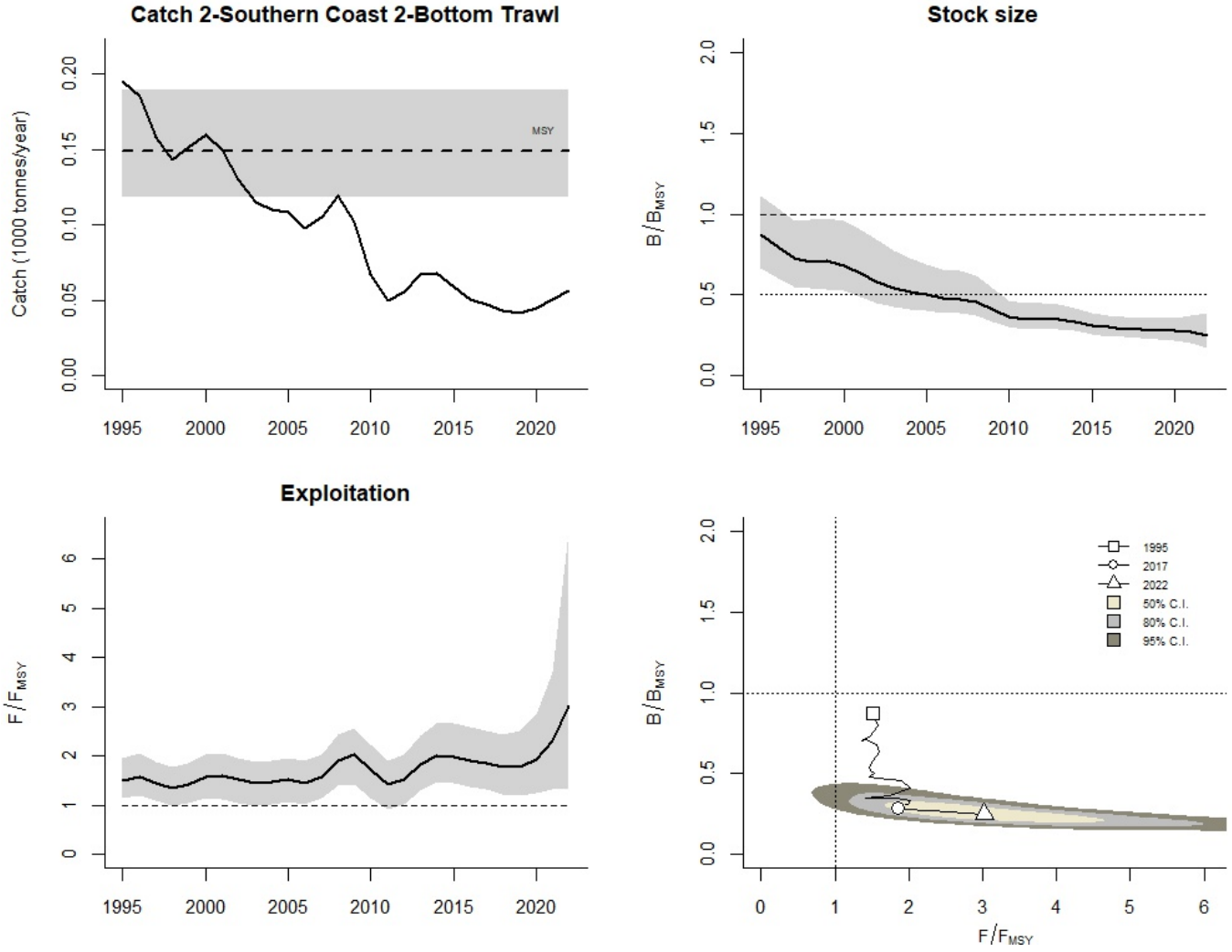
Octopus

Species: *Octopus vulgaris*, Stock code: 2-Southern Coast 2-Bottom Trawl
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



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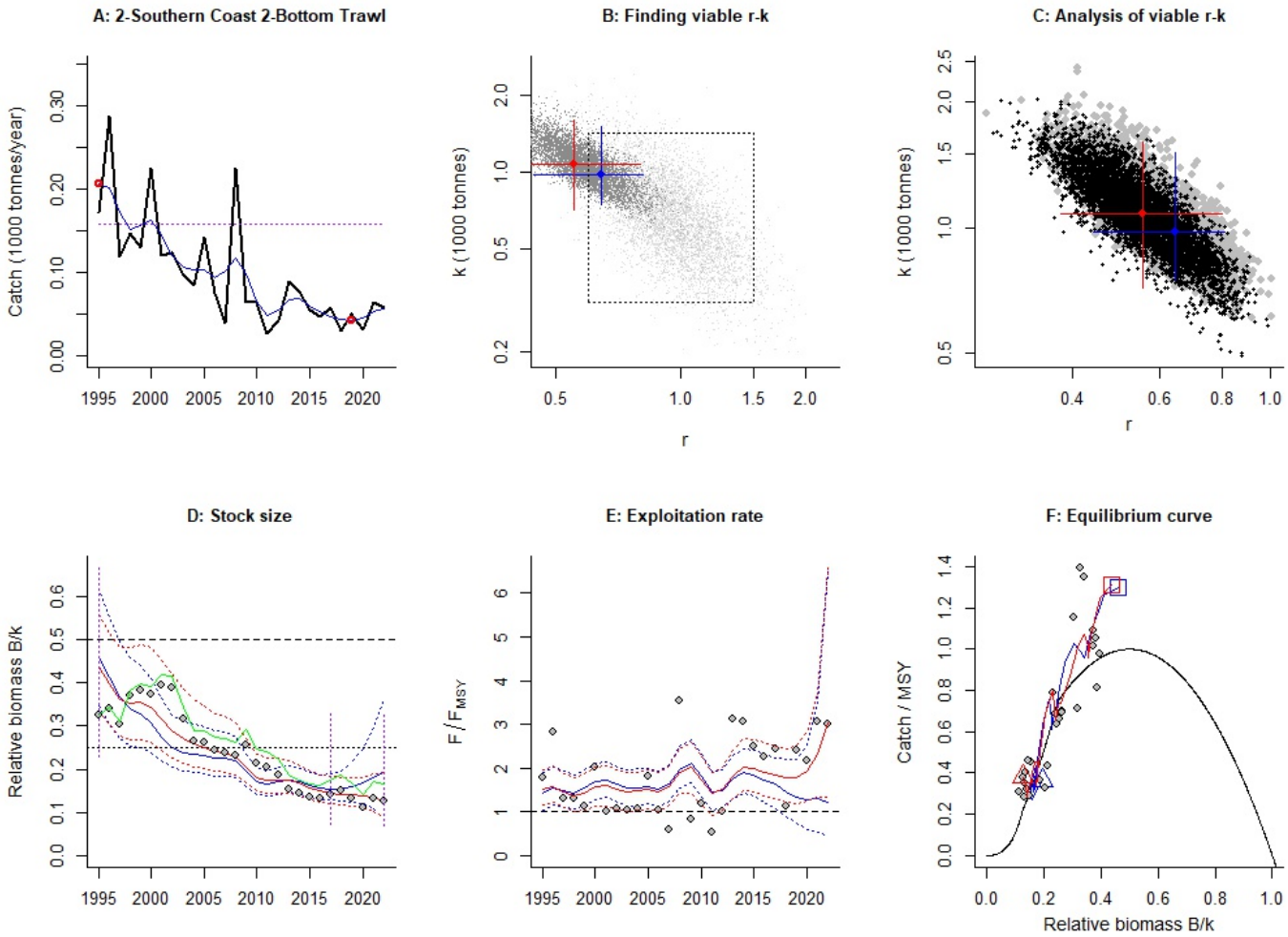
Results for management (based on BSM analysis)

Fmsy = 0.276, 95% CL = 0.19 - 0.4 (if B > 1/2 Bmsy then Fmsy = 0.5 r)
Fmsy = 0.138, 95% CL = 0.0948 - 0.2 (r and Fmsy are linearly reduced if B < 1/2 Bmsy)
MSY = 0.149, 95% CL = 0.118 - 0.189; Bmsy = 0.54, 95% CL = 0.359 - 0.803 (1000 tonnes)
Biomass in last year = 0.136, 95% CL = 0.0842 - 0.22 (1000 tonnes)
B/Bmsy in last year = 0.25, 95% CL = 0.171 - 0.388
Fishing mortality in last year = 0.418, 95% CL =0.239 - 0.725
F/Fmsy = 3.02, 95% CL = 1.33 - 6.57
Comment:



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Results of CMSY analysis conducted in JAGS

r = 0.643, 95% CL = 0.442 - 0.809; k = 0.977, 95% CL = 0.747 - 1.52 (1000 tonnes)
MSY = 0.157, 95% CL = 0.126 - 0.2 (1000 tonnes/year)
Relative biomass last year = 0.193 k, 95% CL = 0.0854 - 0.36
Exploitation F/(r/2) in last year = 1.3

Results from Bayesian Schaefer model using catch and CPUE

r = 0.553, 95% CL = 0.38 - 0.801; k = 1.08, 95% CL = 0.718 - 1.61
r-k log correlation = -0.823
MSY = 0.149, 95% CL = 0.118 - 0.189 (1000 tonnes/year)
Relative biomass in last year = 0.193 k, 95% CL = 0.0854 - 0.36
Exploitation F/(r/2) in last year = 0.99
q = 12.7, 95% CL = 8.81 - 18
Prior range of q = 3.76 - 68.2
Relative abundance data type = CPUE
Prior initial relative biomass = 0.229 - 0.665 default
Prior intermediate relative biomass = 0.0709 - 0.329 in year 2017 default
Prior final relative biomass = 0.0695 - 0.326, default
Prior range for r = 0.6 - 1.5 default, prior range for k = 0.313 - 1.42 (1000 tonnes) default
Source for relative biomass:
DGRM