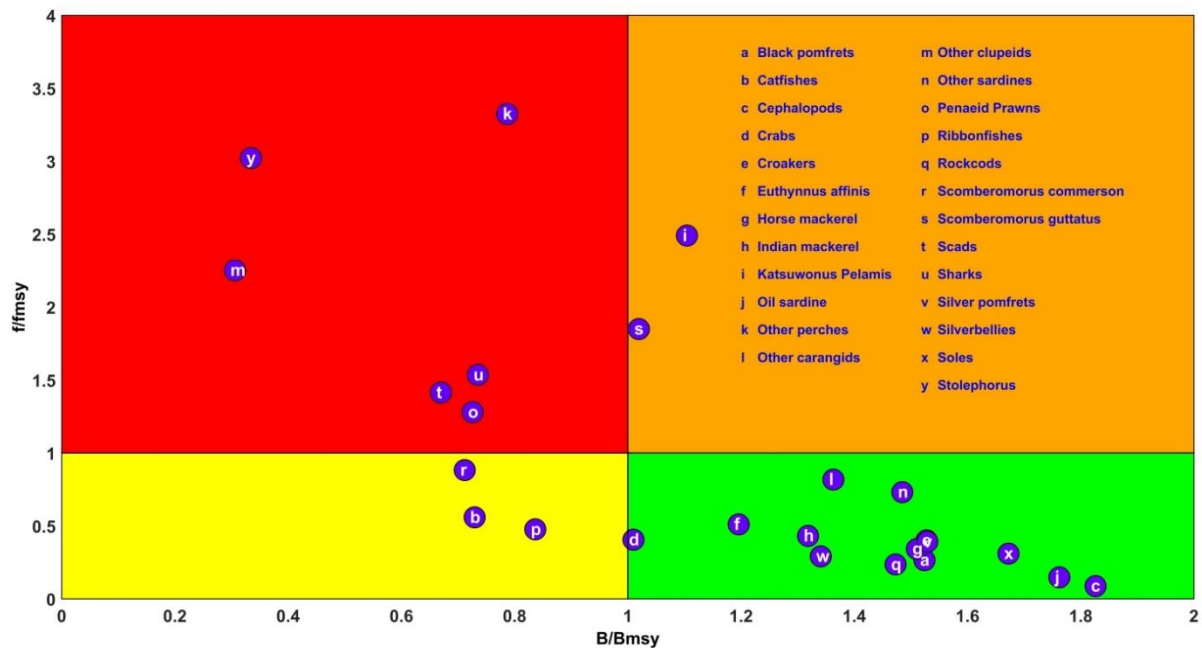


# STATUS OF MARINE FISH STOCKS IN KERALA

## CMFRI DRAFT REPORT 2019

For examining stock status, 25 marine fishery resources in Kerala were modelled which contributed 81% to the total landings in the state. Five major resources among them, in terms of their landings contribution, are oil sardine (17.0%), Indian mackerel (10.7%), cephalopods (7.7%), scads (7.6%) and penaeid prawns (3.6%). The estimates of parameters and MSY for the final models fitted for these resources are given in the Kobe plot. Among the 25 resources examined for stock status through modelling, 14 are found to fall in the green region in the Kobe plot, 6 in the red region, 3 in yellow region and 2 in orange. Those in green requiring no definite management interventions at present are Crabs, *E. affinis*, Indian mackerel, Silverbellies, Rockcods, Horse mackerel, Black pomfrets, Soles, Oil sardine, Cephalopods, Croakers, Silver pomfrets, Other carangids and Other sardines. The resources in red region are with high levels of fishing effort and low biomass levels compared to sustainable levels and these are Stolephores, Sharks, Scads, Penaeid prawns, Other clupeids and Other perches. The fishing effort being expended to harvest these resources need to be brought sufficiently down for certain period in order to enhance the biomass of these resources to the sustainable levels. Resources in the yellow region are *S. commerson*, Catfishes and Ribbon fishes indicating their low levels of biomass even when the fishing effort is below the sustainable level. Management interventions to bring up the biomass of these resources are necessary by not allowing enhancement of the fishing effort as well as harvest control. *K. pelamis* and *S. guttatus* are the two resources in orange region with high levels of biomass and fishing effort. It is advisable to bring down the fishing effort for harvesting these resources to reduce the risk of fall in biomass to below sustainable levels.

Kobe plot indicating the stock status of 25 resources examined in the fishery in Kerala



Status of marine fish stocks in Kerala as percentage indicated by Kobe plots compared to national average

State	Sustainable	Overfishing	Overfished	Rebuilding
Kerala	56.0	8.0	24.0	12.0
National	30.2	4.9	36.9	28.0