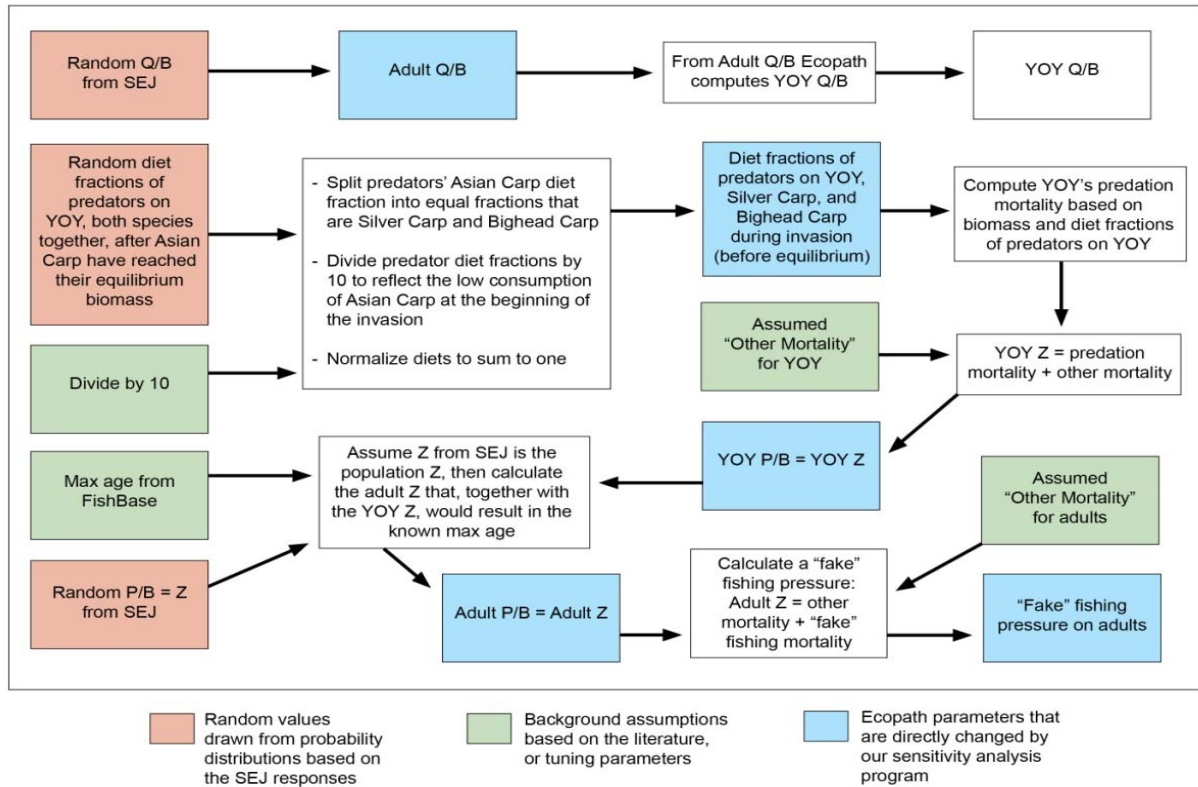
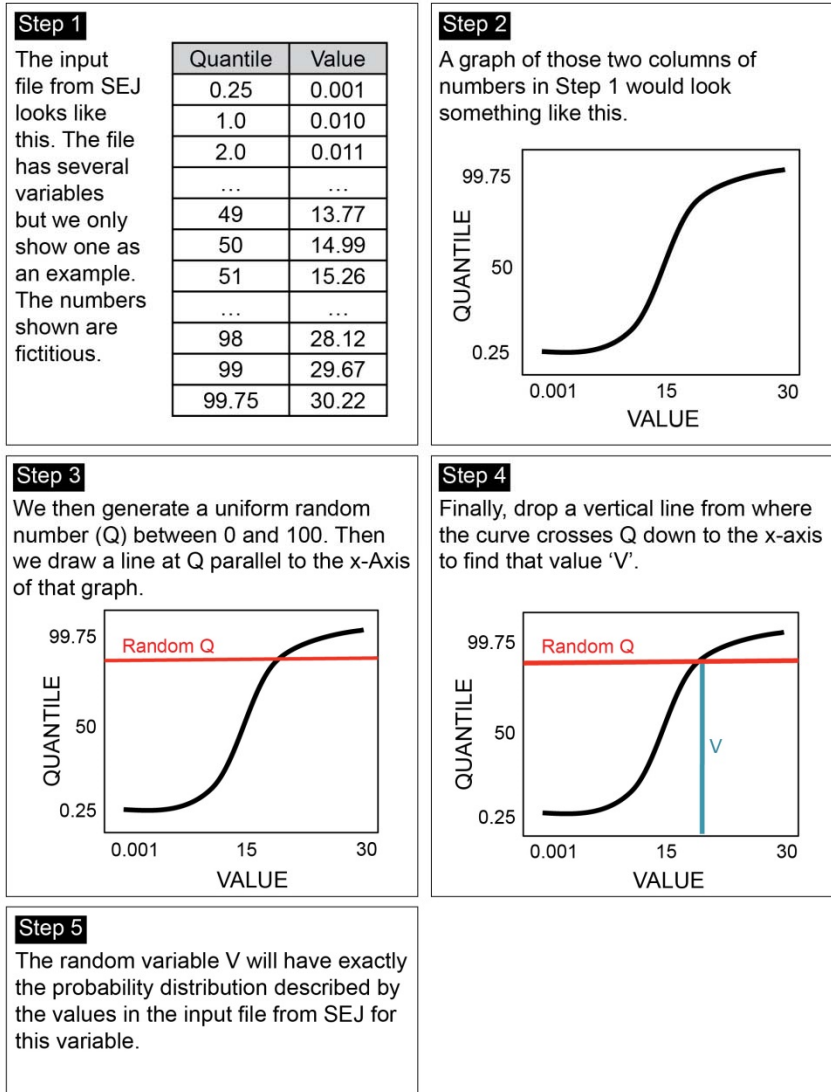


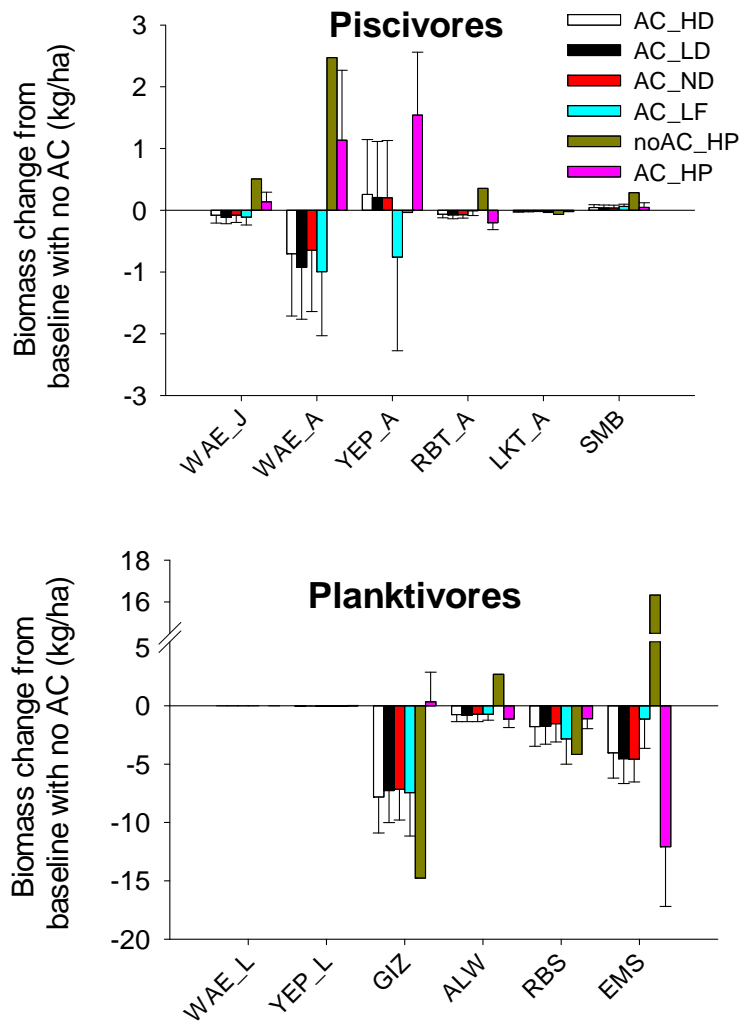
Supplement D: Additional Figures



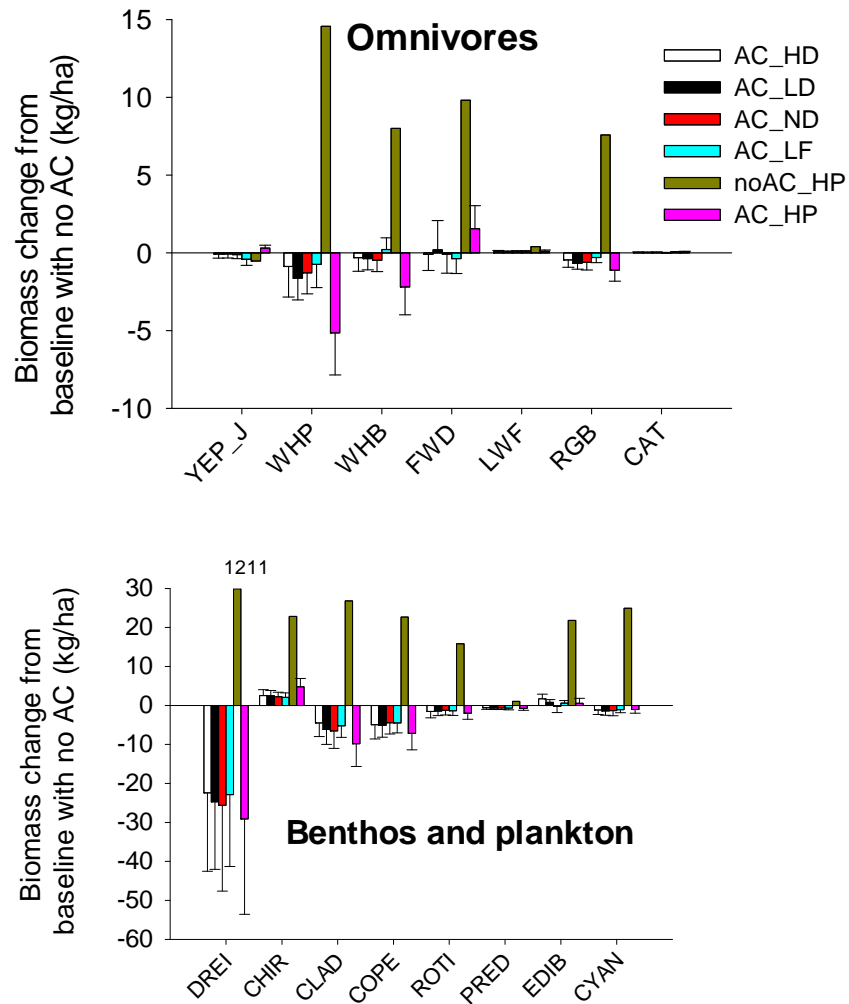
Supplementary Figure S.D.1. Flow chart showing how AC were added into Ecopath and the implementation of SEJ in model simulations.



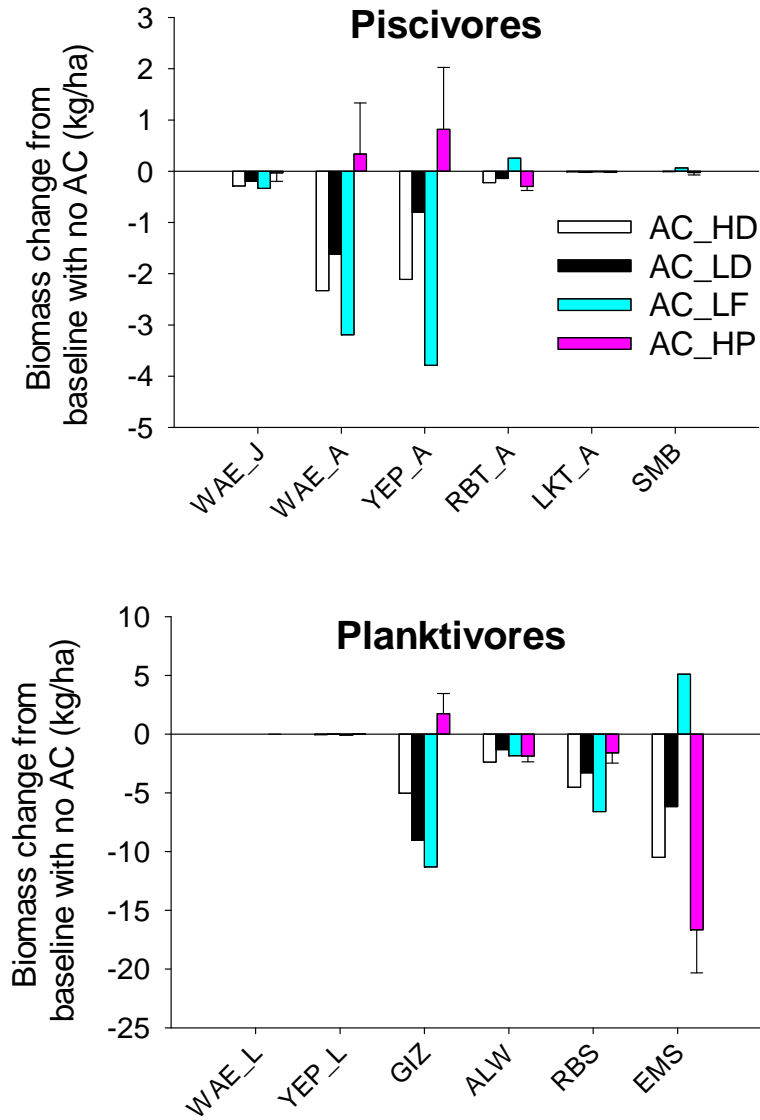
Supplementary Figure S.D.2. Description of the inverse transform sampling procedure used for iteratively sampling the range of parameter values as determined from the SEJ for model simulations.



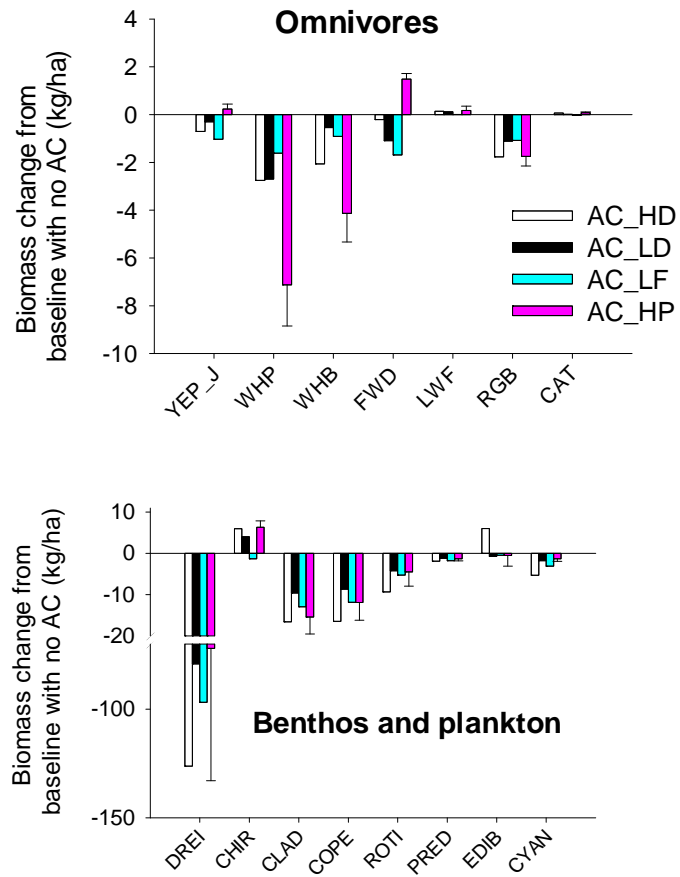
Supplementary Figure S.D.3. Mean (\pm SD) change in biomass (kg/ha) from baseline condition of no AC (noAC) of piscivores (top panel) and planktivores (bottom panel) to AC invasion under scenarios of AC_HD (high detritus in the AC diet, white bars), AC_LD (low detritus in the AC diet, dark bars), AC_ND (none detritus in the AC diet, red bars), AC_LF (larval fish in the AC diet, blue bars), noAC_HP (high phosphorus load with no AC, green bars), and AC_HP (high phosphorus loads, pink bars, compared to noAC_HP). The dashed lines represent $\pm 25\%$ change from baseline condition. See Table 1 for species/group names.



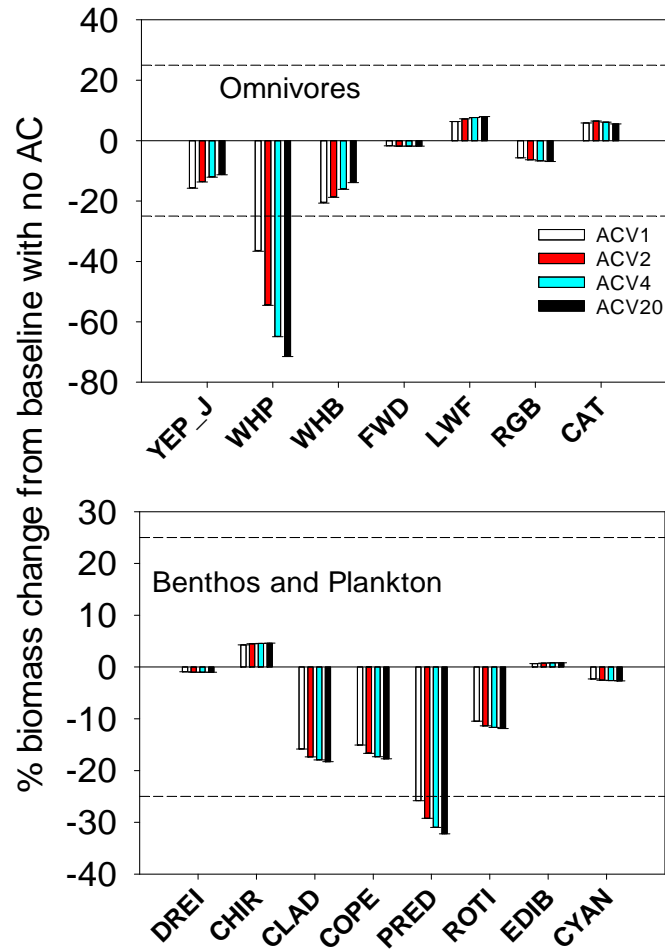
Supplementary Figure S.D.4. Mean (\pm SD) change in biomass (kg/ha) from baseline condition of no AC (noAC) of omnivores (top panel) and benthos and plankton (bottom panel) to AC invasion under scenarios of AC_HD, AC_LD, AC_ND, AC_LF, noAC_HP, and AC_HP. The dashed lines represent $\pm 25\%$ change from baseline condition. See Table 1 for species/group names.



Supplementary Figure S.D.5. Mean (\pm SD) change in biomass (kg/ha) from baseline condition of no AC (noAC) of piscivores (top panel) and planktivores (bottom panel) to high AC biomass ($>200 \text{ kg ha}^{-1}$) under scenarios of AC_HD , AC_LD, AC_LF, and AC_HP . The dashed lines represent $\pm 25\%$ change from baseline condition. See Table 1 for species/group names.



Supplementary Figure S.D.6. Mean (\pm SD) change in biomass (kg/ha) from baseline condition of no AC (noAC) of omnivores (top panel) and benthos and plankton (bottom panel) to high AC biomass (>200 kg/ha) under scenarios of AC_HD, AC_LD, AC_LF, and AC_HP. The dashed lines represent $\pm 25\%$ change from baseline condition. See Table 1 for species/group names.



Supplementary Figure S.D.7. Percent of biomass change from baseline condition of no AC (AC) of omnivorous fishes, benthos and plankton under different vulnerabilities of AC to predators (ACV = 1, 2, 4, 20), while vulnerability of prey to AC (PredV) =11. The dash lines represent $\pm 25\%$ change from baseline condition.