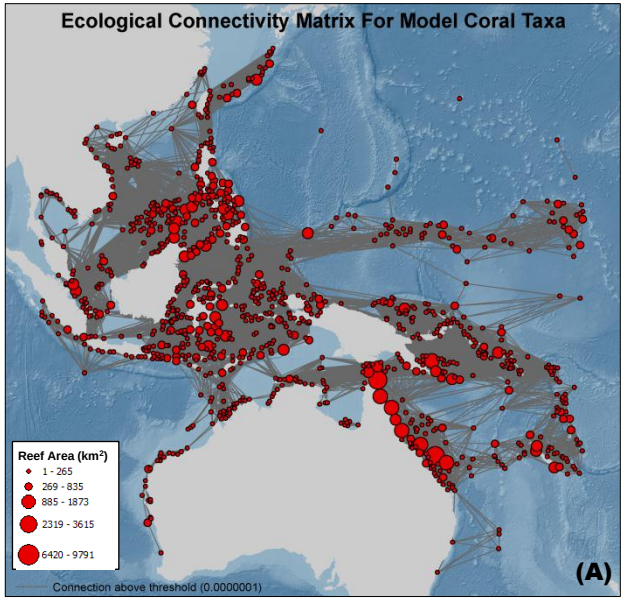
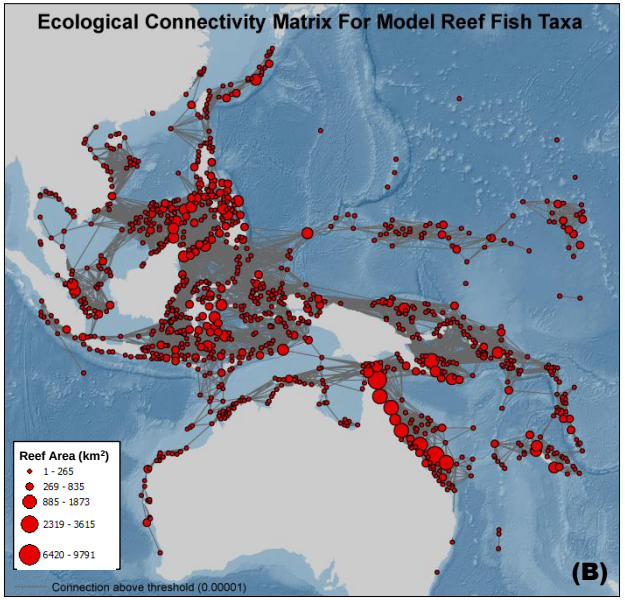
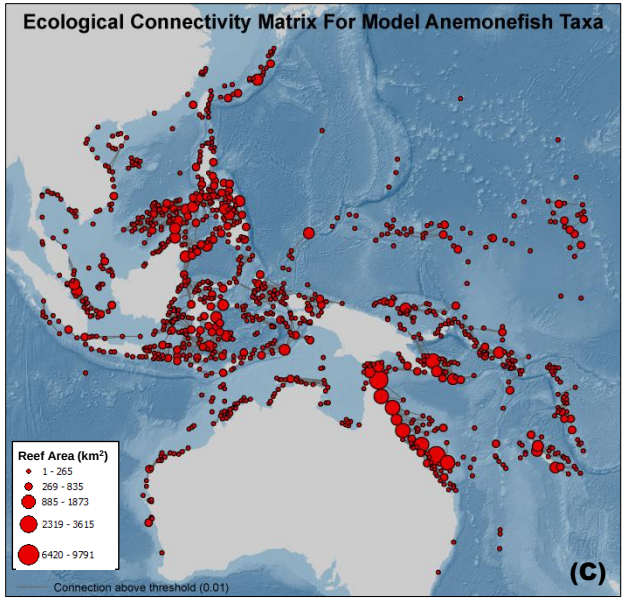
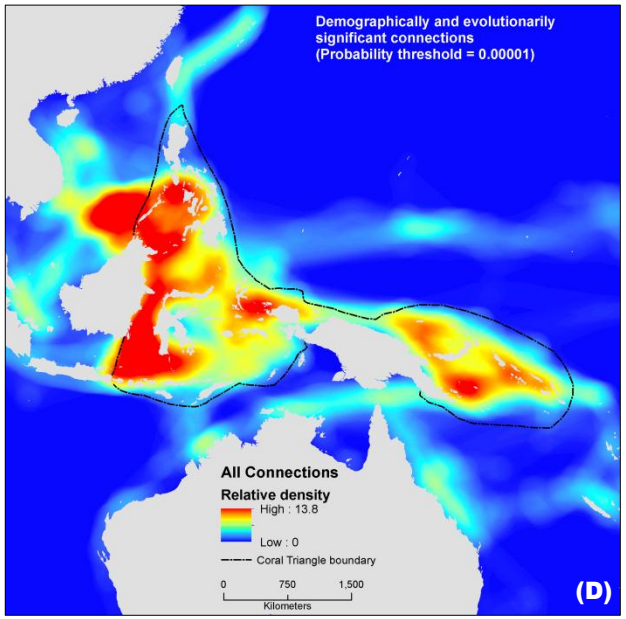
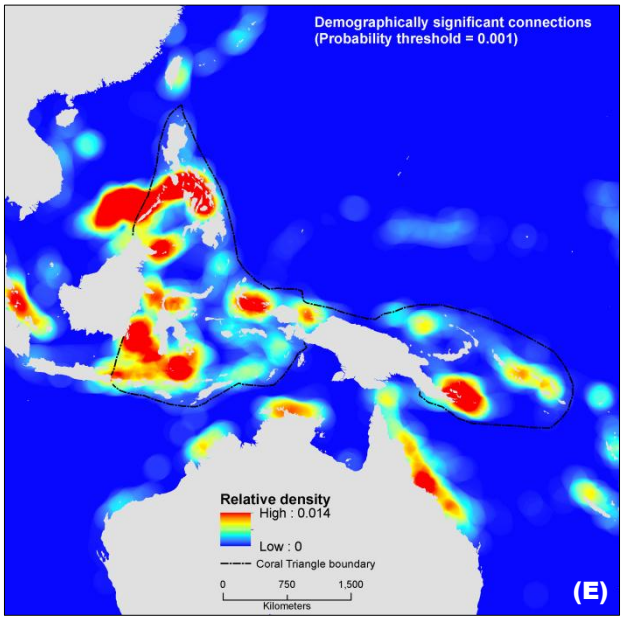
Marine Population Connectivity











Adapted from "Reproductive Output and Duration of the Pelagic Larval Stage Determine Seascape-Wide Connectivity of Marine Populations" by Treml, E. A., Roberts, J. J., Chao, Y., Halpin, P. N., Possingham, H. P., and Riginos, C. (2012) *Integrative And Comparative Biology* 52(4), 525–537.

Population connectivity networks for the three model species: **(A)** coral, **(B)** damselfish, and **(C)** anemonefish. Red nodes represent coral reef habitat with the size scaled to the area of habitat. Dispersal connections between reefs are represented by gray and white links for strengths above and below the MRT, respectively. The MRT for each species is as follows: 107 (coral), 105 (damselfish), and 102 anemonefish).

Adapted from "Marine population connectivity identifies ecological neighbors for conservation planning in the Coral Triangle" by Treml, E. A., & Halpin, P. N. (2012) *Conservation Letters*, 5(6), 441–449.

Connectivity density maps showing the multispecies population connectivity across the region. The boundary of the Coral Triangle is shown for reference. **(D)** Shows the density of only the strong, demographically significant connections (probability of connectivity > 0.001); **(E)** shows the density of all connections (demographically to evolutionarily significant, at probabilities >0.00001). Connection densities are displayed using a linear stretch between the upper and lower 4th standard deviation; values beyond these limits are saturated (highest density is red, lowest density is blue).

CORAL TRIANGLE INITIATIVE ON CORAL REEFS, FISHERIES AND FOOD SECURITY

USAID | ASIA FROM THE AMERICAN PEOPLE

NOAA

Coral Triangle Support Partnership

CORAL TRIANGLE ATLAS

WorldFish

Data Sources:

http://mgel.env.duke.edu/mget