Metadata. Description of data and code.

Schreiber SJ, Moore JL. The structured demography of open populations in fluctuating environments. *Methods in Ecology and Evolution*, 9:1569-1580, 2018.

Data.—

- **clams.Rdata**: Data generated by "Example-Clam-IPM.R" that can be loaded into the code to decrease runtime when creating figures.

Code.—

- **Bsae-Code.R**: This file defines two main functions, runStochasticOpen and calculateIID, which are used in most of the other R files. runStochasticOpen simulates stochastic, structured population models of the types described int eh paper and returns the environmental states, population states, and an estimate of the Lyapunov exponent. calculateIID calculates the means and covariances of the stationary distribution of the models for uncorrelated, stationary environments.
- **Example-Coral-Matrix.R**: This file applies the major results of the paper to a matrix population of corals using data from Pascual, Mercedes, and Hal Caswell. The dynamics of a size-classified benthic population with reproductive subsidy. *Theoretical Population Biology* 39(2): 129-147, 1991. It makes use of the "Base-Code.R" file.
- **Example-Clam-IPM.R**: This file applies the major results of the paper to an integral projection model (IPM) of giant clams, using data from Yau, Annie J., Hunter S. Lenihan, and Bruce E. Kendall. Fishery management priorities vary with self?recruitment in sedentary marine populations. *Ecological Applications*24(6): 1490-1504, 2014. It makes use of the "Base-Code.R" file.
- **Example-SingleVariable.R**: This file studies the simple, scalar model. It does not use the "Base-Code.R" file.