Matrix population models from 20 studies of perennial plant populations


Abstract. Demographic transition matrices are among the most commonly applied population models for both basic and applied ecological research. The relatively simple framework of these models and simple, easily interpretable summary statistics they produce have prompted the wide use of these models across an exceptionally broad range of taxa. Here, we provide annual transition matrices and observed stage structures/population sizes for 20 perennial plant species which have been the focal species for long-term demographic monitoring. These data were assembled as part of the “Testing Matrix Models” working group through the National Center for Ecological Analysis and Synthesis (NCEAS). The data represent 82 populations with >460 total population-years of observations. It is our hope that making these data available will help promote and improve our ability to monitor and understand plant population dynamics.

Key words: conservation; Demographic matrix models; ecological forecasting; extinction risk; matrix population models; plant population dynamics; population growth rate.

The complete data sets corresponding to abstracts published in the Data Papers section of the journal are published electronically in Ecological Archives: http://esapubs.org/archive (the accession number for each Data Paper is given directly beneath the title).