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Daniel Maxin* (daniel.maxin@valpo.edu), Valparaiso, IN 46383. *A gender structured model with single-biased separation rate.* Preliminary report.

We propose a two-sex demographic model with a modified divorce rate that reflects the correlation between single population size and the likelihood of couple separation. In the classical two-sex exponential model, we found that the single population pressure on the married couples alters the dynamics of the total population and causes the existence of an interior steady state. A Hopf bifurcation analysis around the interior equilibrium shows that, for a suitable divorce function, the model exhibits sustained oscillations. (Received September 04, 2008)