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Socially-stimulated oscillator synchrony has been documented in menstrual cycles of women, estrous cycles of Norway rats, and egg-laying cycles of Glaucous-winged Gulls. We probe the question of selective advantage in gulls by considering a Darwinian Dynamics model consisting of a gull population model coupled to a model for a heritable trait related to social stimulation. The Darwinian Dynamics model predicts that the system will evolve to a state for which egg-laying synchrony exists. (Received September 22, 2009)