Danielle Burton and Shandelle M Henson* (henson@andrews.edu). Bifurcation of synchronous ovulation cycles in colonial birds.

Spontaneous oscillator synchrony has been documented in many physical and biological systems, including estrous/menstrual synchrony in rats and humans. In previous work we showed that ovulation synchrony occurs in two species of colonial birds and that the level of synchrony increases with colony density. Here we use a simple proof-of-concept model to study the bifurcation of synchronous cycles as a function of colony density. (Received August 13, 2013)