Sophia R.-J. Jang* (sophia.jang@ttu.edu), Lubbock, TX 79409. Competitive exclusion and coexistence in a Leslie-Gower competition model with Allee effects. Preliminary report.

The classical competitive exclusion principle states that two populations competing for a limited resource cannot coexist, that one of the populations will drive the other to extinction. We prove in this work that when one population is also subject to Allee effects, then both competing populations may either coexist or one population may drive the other to extinction depending on initial conditions. (Received September 23, 2010)