To assess the potential for invasive plants to shift ranges more readily than native plant species, a growth chamber experiment was set up to monitor changes in biomass under different site, temperature, and soil biota treatments. Total biomass (above and belowground) of three Eugenia congeners was assessed by site, soil microbe, and temperature treatments. Of the three congeneric shrub species, two are native to southern and central Florida (Eugenia foetida and E. axillaris,), and one is a non-native invasive from south America (E. uniflora). We measured total biomass for these plant species in growth chambers grown under live and sterile soils from two sites within their current range, and one site in their expected range, simulating current (2010) and predicted future (2050) spring growing season temperatures in the new range. The experiments took place from 2012 - 2013 in University of Central Florida growth chambers.