Matlab Project 2, Second Problem

Here is the graph that I got using the **slopes** app. For any initial conditions in the first quadrant, this model gives a periodic orbit. The size of which depends on the initial condition. Ecologists generally think this is a weird result, as it doesn't settle down to a limit. It's especially weird if both x (the prey species) and y (the predator species) are large at $t = 0$, for example, on the yellow solution curve. At short times, the prey species starts to die out, while the predators increase. Then, when the population of prey is small, the predators start to die off really fast. Once the predators are almost all gone, the prey starts to recover and the process repeats.