1070-39-280   **Mustafa R.S. Kulenovic***, Department of Mathematics, University of Rhode Island, Kingston, RI 02881, and **Mehmed Nurkanovic**, Department of Mathematics, University of Tuzla, Tuzla, Bosnia-Herzegovina. *Global Behavior of a Two-dimensional Competitive System of Difference Equations with Stocking.*

We investigate the global dynamics of solutions of a competitive rational systems of difference equations in the plane:

$$x_{n+1} = \frac{b_1 x_n}{1 + x_n + c_1 y_n} + h, \quad y_{n+1} = \frac{b_2 y_n}{1 + c_2 x_n + y_n}, \quad n = 0, 1, \ldots$$

where the parameters b_1, b_2, c_1, c_2 and h are positive numbers and the initial conditions x_0, y_0 are arbitrary non-negative numbers.

We show that the basins of attractions of different locally asymptotically stable equilibrium points are separated by the global stable manifolds of either saddle points or of non-hyperbolic equilibrium points. (Received February 14, 2011)