1096-39-477 **Daniel W. Cranston*** (dcranston@vcu.edu) and **Candace M. Kent**. *Boundedness of Solutions of the Difference Equation* $x_n = \max\left\{\frac{A^1_{n-1}}{x_{n-1}}, \frac{A^2_{n-1}}{x_{n-2}}, \ldots, \frac{A^t_{n-1}}{x_{n-t}}\right\}$ *with Periodic Parameters.*

We investigate the boundedness of positive solutions of the reciprocal max-type difference equation

$$x_n = \max\left\{\frac{A^1_{n-1}}{x_{n-1}}, \frac{A^2_{n-1}}{x_{n-2}}, \ldots, \frac{A^t_{n-1}}{x_{n-t}}\right\}, \quad n = 1, 2, \ldots,$$

where, for each value of i, the sequence $\{A^i_n\}_{n=0}^{\infty}$ of positive numbers is periodic with period p_i. We give both sufficient conditions on the p_i's for the boundedness of all solutions and sufficient conditions for all solutions to be unbounded. This work essentially complements the work by Bidwell and Franke, who showed that as long as every positive solution of our equation is *bounded*, then every positive solution is eventually periodic, thereby leaving open the question as to when solutions are bounded. (Received September 04, 2013)