1046-92-890   **James F. Selgrade*** (`selgrade@math.ncsu.edu`), Box 8205, North Carolina State University, Raleigh, NC 27695-8205, and **Jordan West Bostic** and **James H. Roberds**. *Attractors for a periodic, discrete selection-migration model with partial dominance.* Preliminary report.

To study periodic immigration of genes into a natural population, a selection-migration model with density-dependent regulation is used to track allele frequency and population size over discrete generations. Conditions are found which guarantee the existence of a global attractor under the assumption of partial dominance in heterozygote fitness. Bounds for the variation in allele frequency for solutions within the attractor are determined and rates at which solutions approach the attractor are approximated. How the position of the attractor changes as the dominance parameter changes is studied. A measure of allelic diversity is introduced. (Received September 12, 2008)

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