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William R Wolesensky* (wwolesensky@csm.edu), College of Saint Mary, 1901 S. 72nd, Omaha, NE 68124, and **J David Logan**. *Temperature Induced Variations in Prey Foraging and Predation*.

The activity times and foraging behaviors of insects and many of their predators are strongly dependent upon daily temperature variations. In an age of global climate changes, it is important to assess how trophic interactions may depend upon increased or decreased temperature levels. We develop a mechanistic, mathematical model that defines daily temporal and temperature zones where interactions between predators and prey can occur, and where there is a trade-off for the prey between feeding and predation risk. The model provides a tool to simulate prey risk, foraging and vigilance, and survivorship under various temperature regimes. (Received August 30, 2005)