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We study a new model obtained as an extension of a three-species food chain model with ratio-dependent functional response. In part one of the talk, we present the Ordinary Differential equation Model. We provide non-persistence and permanence results and investigate the stability of all possible equilibria in relation to the ecological parameters. Results are obtained for the trivial and prey-only equilibria where the singularity of the model prevents linearization, and the remaining semi-trivial equilibria are studied using linearization. We provide a detailed analysis of conditions for existence, uniqueness, and multiplicity of coexistence equilibria, as well as permanent effect for all species. The complexity of the dynamics in this model is theoretically discussed and graphically demonstrated through various examples and numerical simulations. (Received September 22, 2014)