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Saber N Elaydi^{*} (selaydi@trinity.edu), One Trinity Place, San Antonio, TX 78212. A discrete model for extinction and sustainability. Preliminary report.

We develop a ratio dependent population-resource discrete model. The model provides a good explanation to the decline of certain populations and the chaotic dynamics of others. We will compare our model with other existing models in the literature, particularly in regards to data collected by biologists for some human and animal populations. (Received February 27, 2007)