Seasonal effect on predator-prey model under elemental constraints

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Recent studies suggest that the carrying capacity of a predator-prey system varies seasonally due to environmental cycles resulting from natural and human activities. As such, incorporating seasonal variation in the carrying capacity of a predator-prey system provides a better understanding of the underlying population dynamics. In this vein, we develop a seasonally varied stoichiometric predator-prey model subject to a toxicant stressor. We investigate the effects of seasonality on population dynamics to improve our understanding of the complex governing process of the trophic transfers for nutrients, energy, and toxicants.

References

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