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Dynamical systems have been used to study predator-prey interactions since Lotka and Volterra both proposed their equations in the 1920's. In some ecological settings, defense from predation by the prey has been observed and modeled. While defense structures have been modeled, age-structured-prey-defense has not been previously modeled to our knowledge. This specific phenomenon has been well-observed with lions and buffalo. The authors present a predator-prey model with adult buffalo, infant buffalo, and lions with age-structured defense by buffalo, by modifying a previous model for buffalo, warthog and lions. The system is analyzed and results, as well as their ecological implications, are subsequently discussed.

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