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Stationary distribution of a regime-switching predator-prey model with anti-predator behaviour and higher-order perturbations

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#### **ACCEPTED MANUSCRIPT**

## Highlights

- •A regime-switching predator-prey model with anti-predator behaviour is studied.
- ●We obtain the ergodic property by constructing a suitable stochastic Lyapunov function.
  - •The existence of a stationary distribution implies stoch; stic weak stability.

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