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Stability analysis of predator-prey system with migrating prey and disease infection in both species

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**Highlights**

- An eco-epidemiological model with migration and disease in both species is proposed.
- Stability conditions of all equilibrium points have been investigated.
- Basic reproduction number  $R_0$  for the proposed model is calculated and disease is endemic if  $R_0 > 1$ .
- It is proposed that healthy pray have more chances to be migrated as compared to infected one.
- Analytically and numerically the effect of migration on dynamics of model is evaluated.

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