

Modeling the Dynamics of Vector-Host Interactions in Avian Communities: Eastern Equine Encephalitis virus as a model system

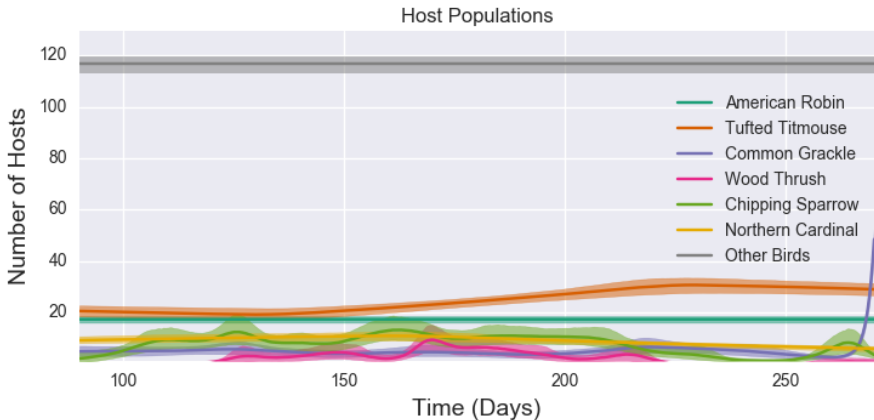
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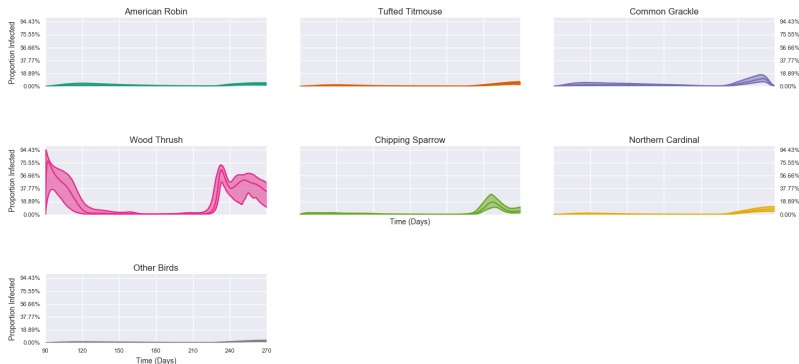
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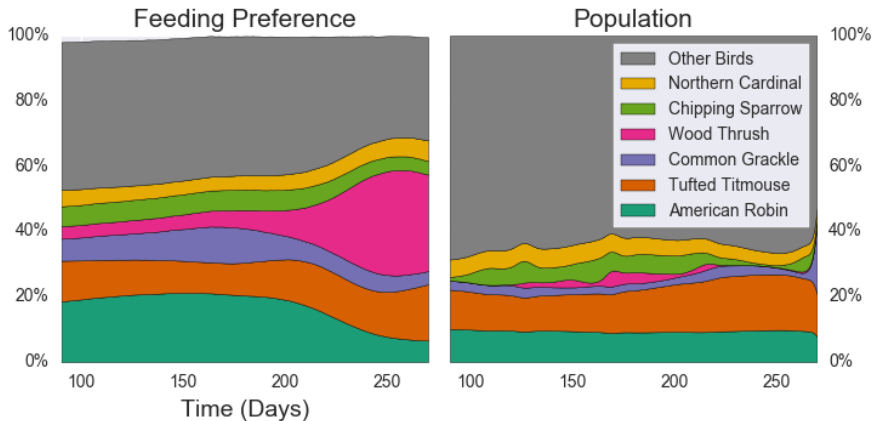
Populations



Infections



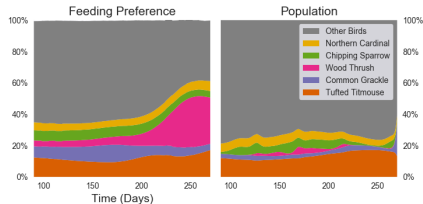
Feeding Index



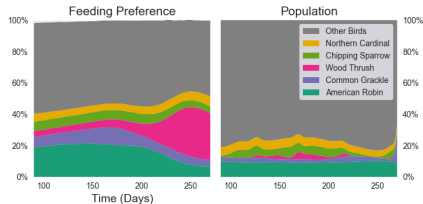
Species Examination

- Want to examine the impact feeding preference has on infection
- We combine a selected species with other birds, recreate the splines, and then re-simulate the ODE with the same parameter values

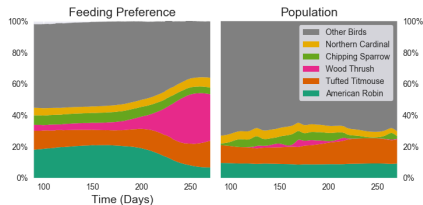
Feeding Index Comparisons



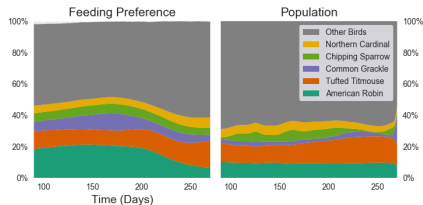
(a) American Robin Combined



(b) Tufted Titmouse Combined

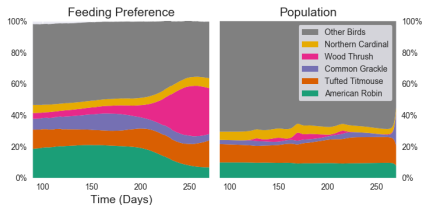


(c) Common Grackle Combined

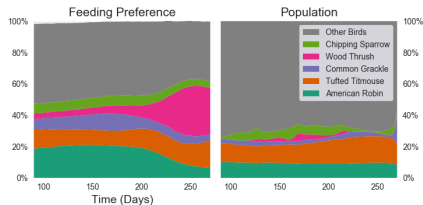


(d) Wood Thrush Combined

Feeding Index Comparisons Cont.



(a) Chipping Sparrow Combined

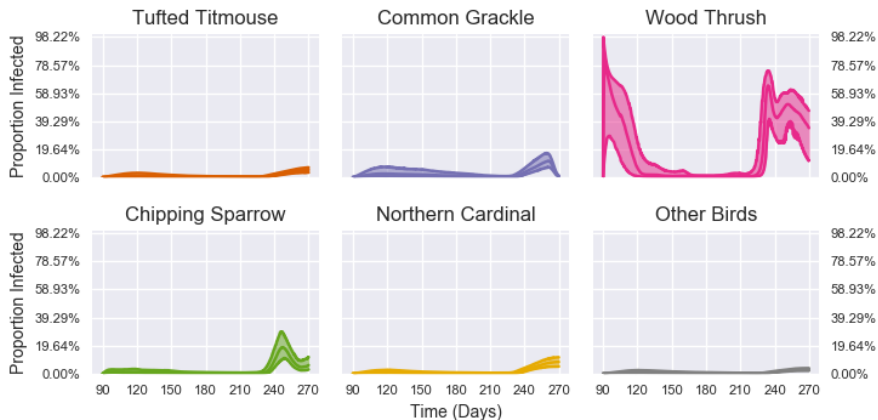


(b) Northern Cardinal Combined

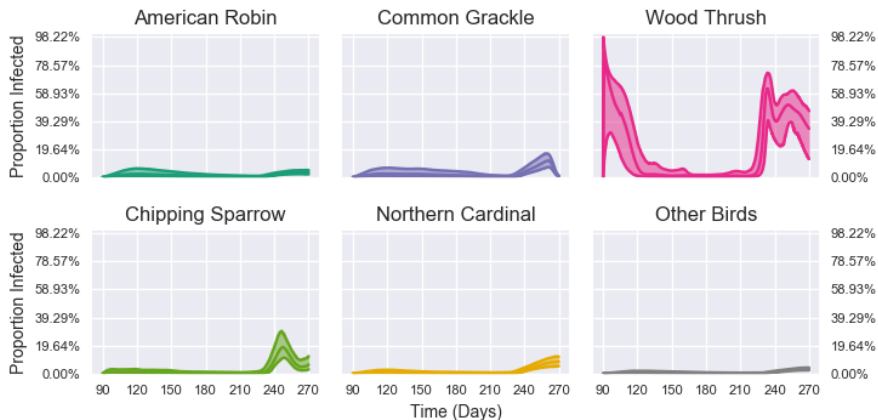
Results

Species Combined	Percent Infected
None	15.2%
American Robin	13.1%
Tufted Titmouse	15.6%
Common Grackle	17.3%
Wood Thrush	1.2%
Chipping Sparrow	17.4%
Northern Cardinal	15.5%

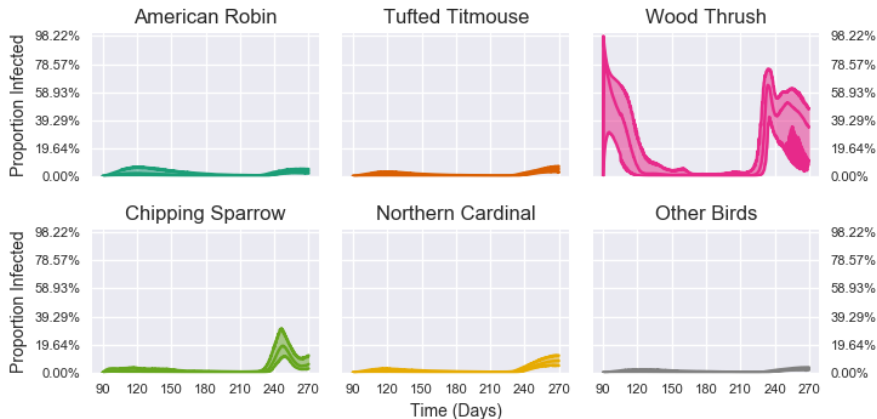
American Robin Combined Infections



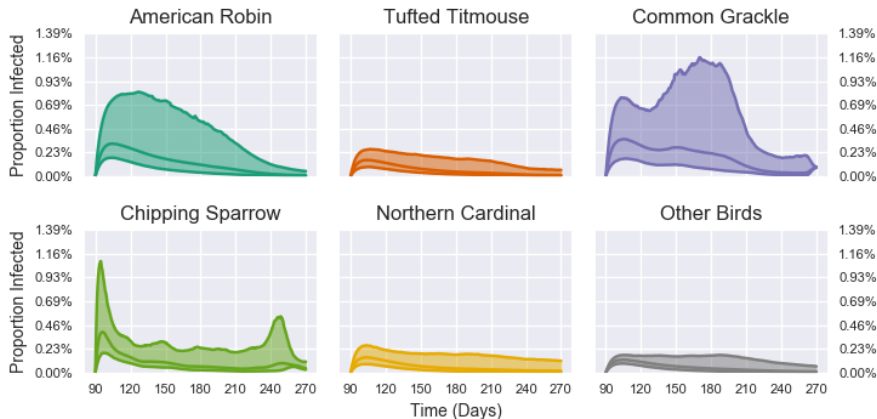
Tufted Titmouse Combined Infections



Common Grackle Combined Infections



Wood Thrush Combined Infections



Chipping Sparrow Combined Infections



Northern Cardinal Combined Infections

