Making a case for viral niche construction.

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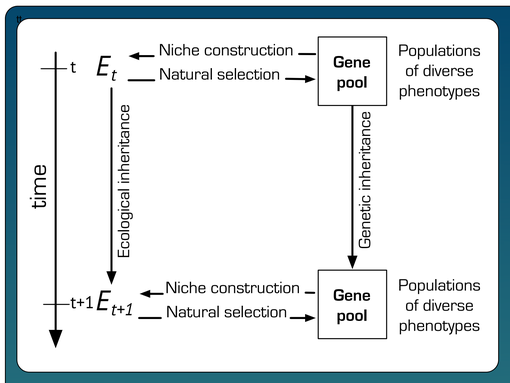

Niche construction is the "process whereby organisms , through their metabolism, their activities, and their choices, modify their own and/or each other's niches" ([1], p. 419). Niche construction has been identified in every kingdom of life([1], Table 2.2), but viruses have been paid little attention. Here we present an argument that niche construction occurs in viruses, using the family *Baculoviridae* as a test case.

Baculoviruses are dsDNA viruses pathogenic to arthropods (particularly Lepidoptera, but also Diptera and others) with Paleozoic origins[2] and two major subtypes, the nucleopolyhedroviruses (NPV) and granuloviruses (GV). Two interesting characteristics of Baculovirus pathology are the final stage liquefaction of host tissues by the virus, and a behavioural manipulation in many host species that causes infected individuals to climb to the top of the vegetation they are on to die (known as tree disease or Wipfelkrankheit).

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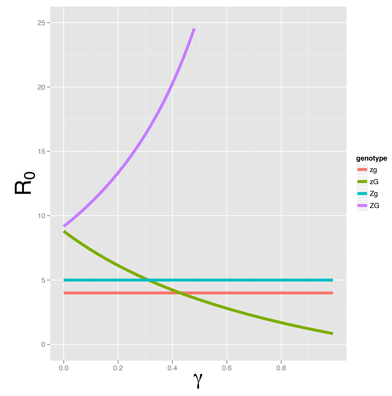

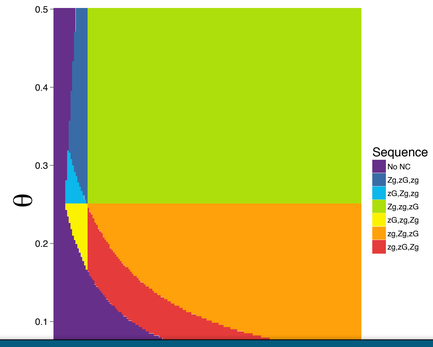

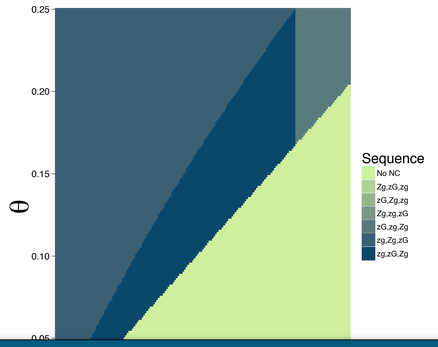

Two parts: is it possible, and do we have eviden
Model, phylogeny.

Niche construction
Niche construction in viruses
Baculoviruses as a test.
Describe Bac.

Model and parameters

Bold conclusion!

Acknowledgements

[1]. Odling-Smee et al. (2003) [2]Herniou et al. (2011)

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