

Bsal Treatment Table

Species Scenarios for Estimating End-points

Color Legend

Susceptibility to *Bsal*

Resistant (Risk = 0, no)

No infection, no disease, no neg. effect on host fitness

Tolerant (Risk = 1, low)

Infection in the absence of disease, no neg. effect on host fitness

Susceptible (Risk = 2, moderate)

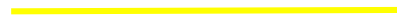
Infection resulting in clinical disease with poss. of recovery, neg. effects on host fitness

Lethal (Risk = 3, high)

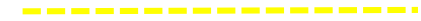
Infection resulting in lethal disease in all infected animals, neg. effects on host fitness

Unknown/Not Estimated

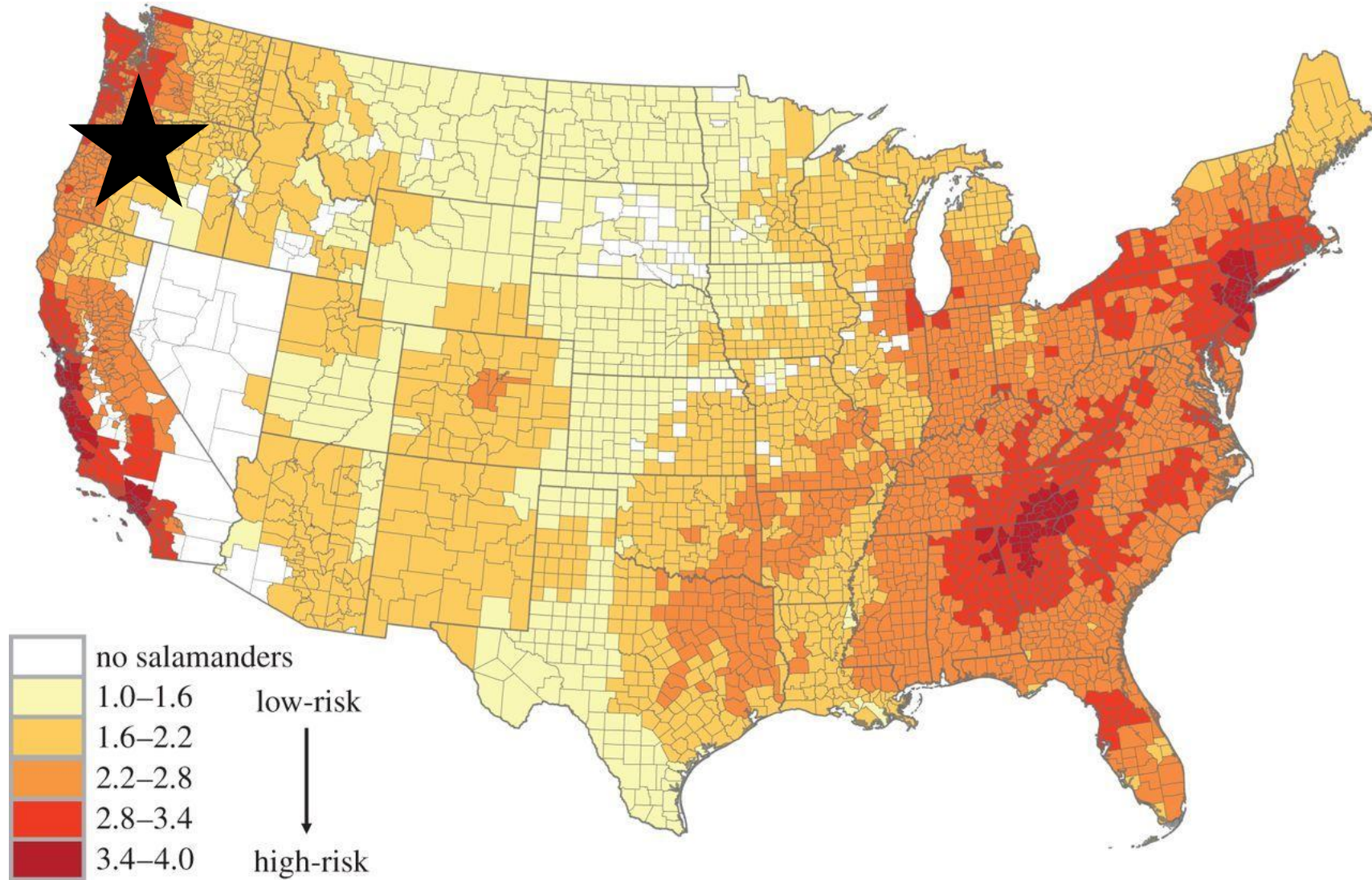
Known Susceptibility



Estimated Susceptibility



Scenario #1



Rough-skinned Newt (*Taricha granulosa*)



Susceptible

T. granulosa Habitat



- Pond in Benton Co., Oregon
 - Physiographic Region:
 - Pacific Mountain System
 - Elevation of site:
 - ~400 ft above sea level
 - Climate:
 - Mild, wet winters & warm, dry summers
 - Land use surrounding site:
 - Urban areas nestled within productive farmland
 - Pressures on valley ecosystem from population growth, land use conversion, & pollution

Species that interact with *T. granulosa*



- Five species interact with *T. granulosa* in Unit 15 Pond
 - Northwestern salamander (*Ambystoma gracile*)
 - Long-toed salamander (*Ambystoma macrodactylum*)
 - American bullfrog (*Lithobates catesbeianus*)
 - Pacific chorus frog (*Pseudacris regilla*)
 - Northern red-legged frog (*Rana aurora*)



A. gracile



A. macrodactylum



L. catesbeianus

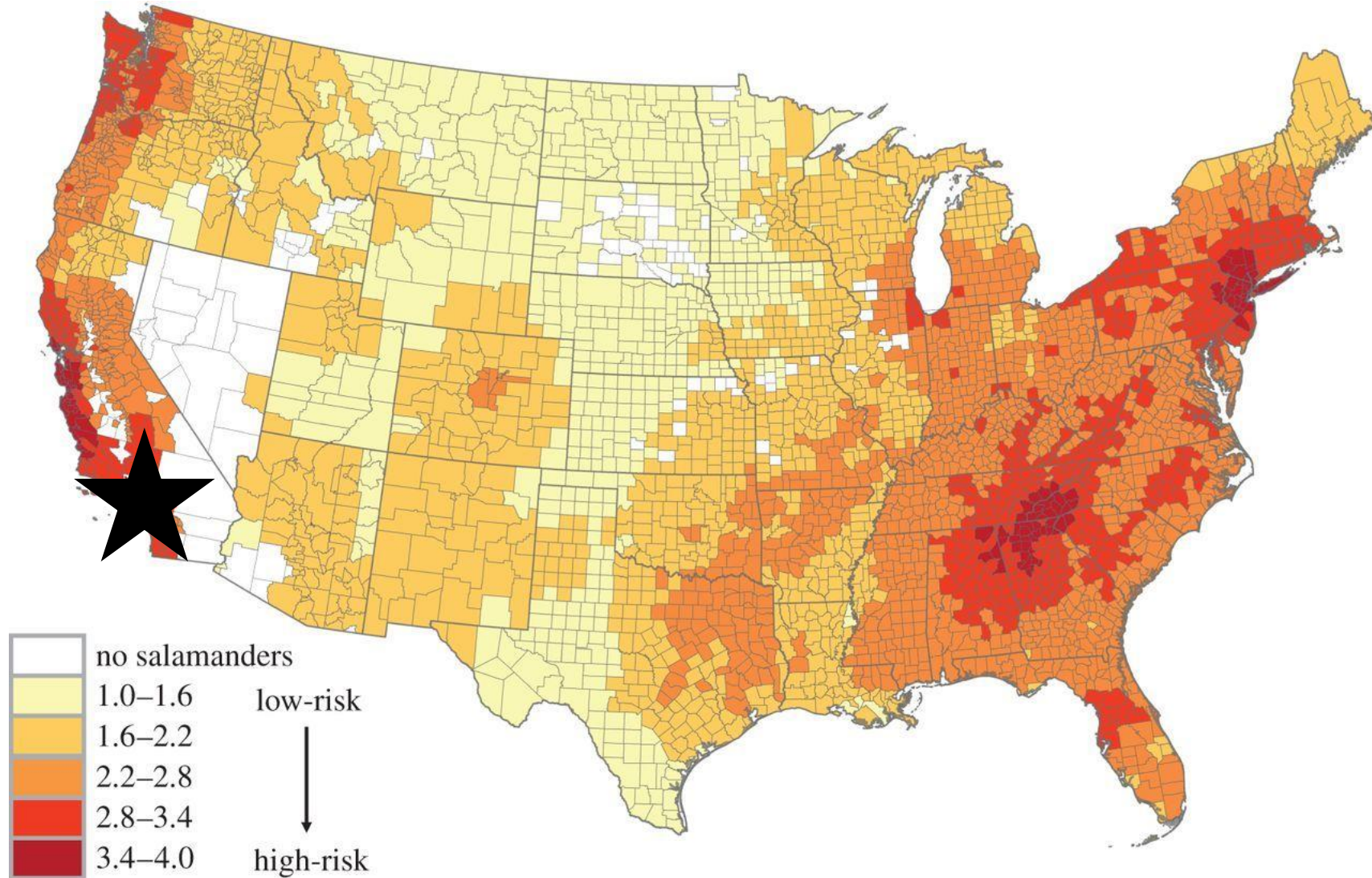


P. regilla



R. aurora

Scenario #2



California Newt (*Taricha torosa*)



Susceptible

T. torosa Habitat



- Stream in San Diego Co., California
 - Physiographic Region:
 - Pacific Mountain System
 - Elevation of site:
 - ~2,000 ft above sea level
 - Climate:
 - Mild winters & warm, dry summers
 - Land use surrounding site:
 - Urban areas nestled within productive farmland
 - Pressures on ecosystem from population growth, land use conversion, & pollution

Species that interact with *T. torosa*



- Four species interact with *T. torosa* in streams
 - Baja California treefrog (*Pseudacris hypochondriaca*)
 - California treefrog (*Pseudacris cadaverina*)
 - Western toad (*Anaxyrus boreas*)
 - American bullfrog (*Lithobates catesbeianus*): invasive



P. hypochondriaca



P. cadaverina

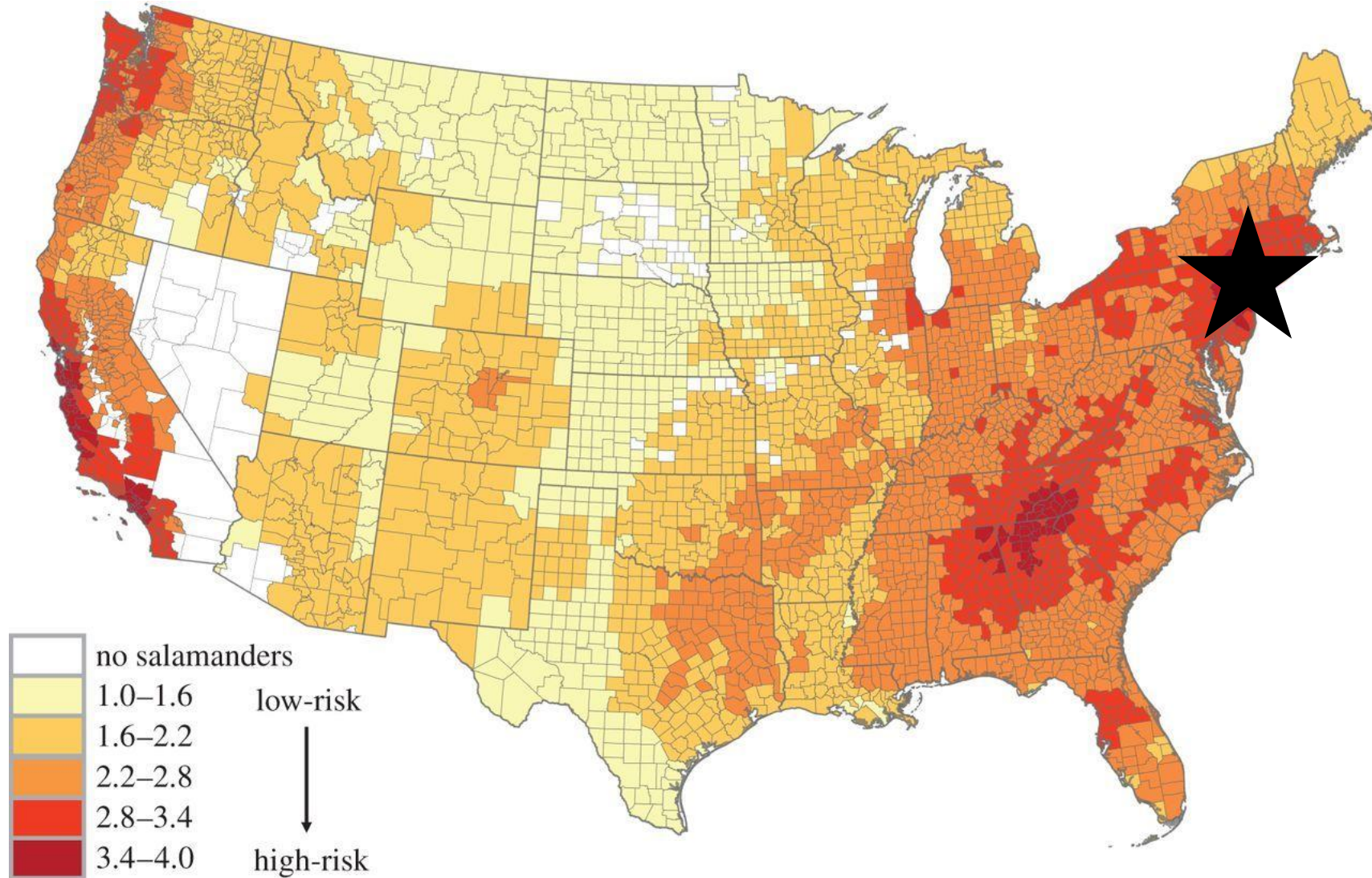


A. boreas



L. catesbeianus

Scenario #3



Eastern red-spotted Newt (*Notophthalmus viridescens*)



Susceptible to Lethal

N. viridescens Habitat



- Vernal pool in Hampden Co., Mass.
 - Physiographic Region:
 - Appalachian Highlands
 - Elevation of site:
 - ~200 ft above sea level
 - Climate:
 - Cold, wet winters & humid, warm summers
 - Land use surrounding site:
 - Urban areas nestled within productive farmland
 - Pressures on valley ecosystem from population growth, land use conversion, & pollution

Species that interact with *N. viridescens*

- 10 species interact with *N. viridescens* in vernal pools



- Spotted (*Ambystoma maculatum*)
- Marbled (*Ambystoma opacum*)
- American bullfrog (*Lithobates catesbeianus*)
- Green frog (*Lithobates clamitans*)
- Northern leopard frog (*Lithobates pipiens*)
- Pickerel frog (*Lithobates palustris*)
- Wood frog (*Lithobates sylvaticus*)
- Gray tree frog (*Hyla versicolor*)
- American toad (*Anaxyrus americanus*)
- Spring peeper (*Pseudacris crucifer*)



A. maculatum



A. opacum



L. catesbeianus



L. clamitans



L. pipiens



L. palustris



L. sylvaticus



H. versicolor

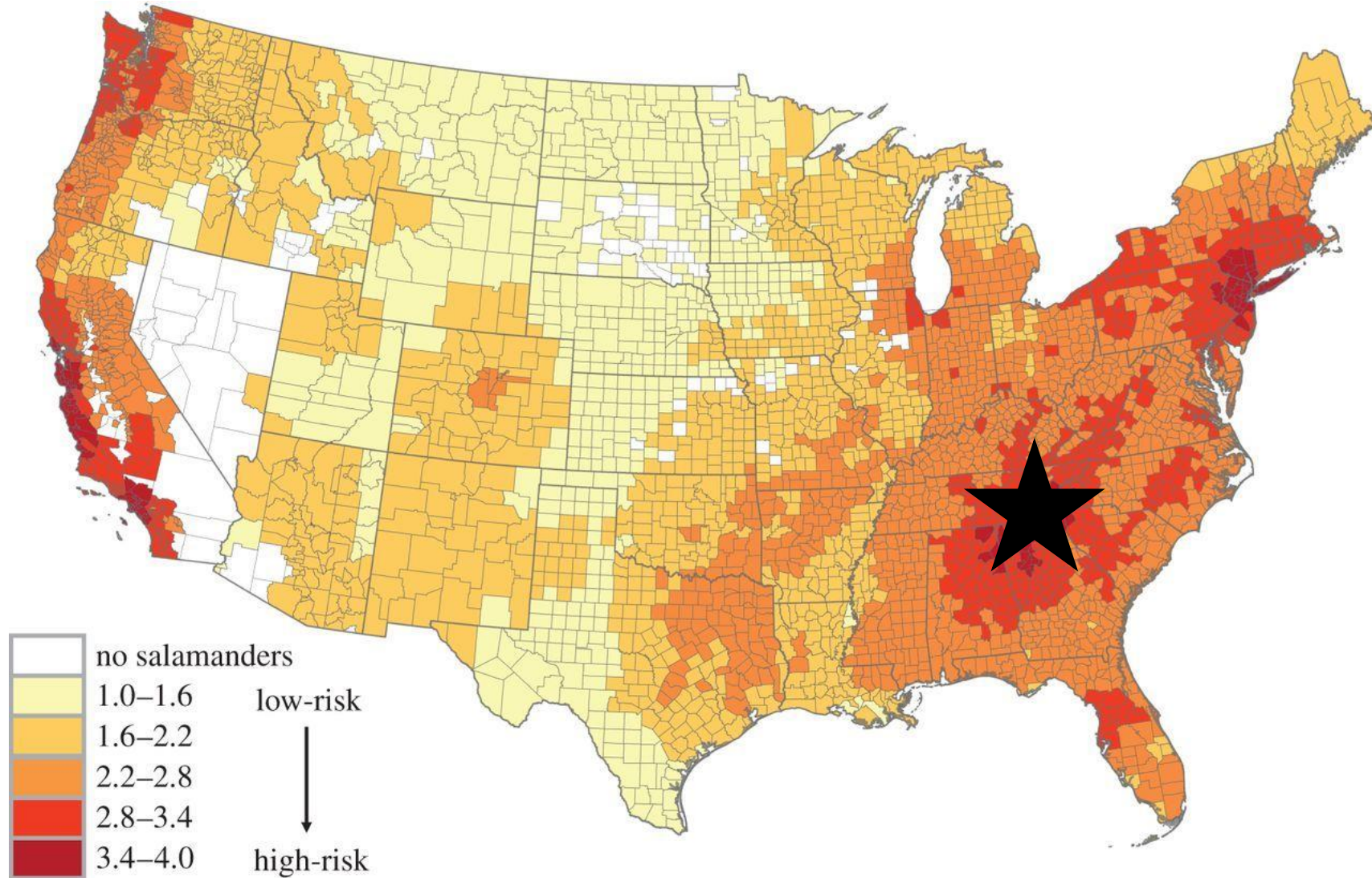


A. americanus



P. crucifer

Scenario #4



Southern two-lined (*Eurycea cirrigera*)



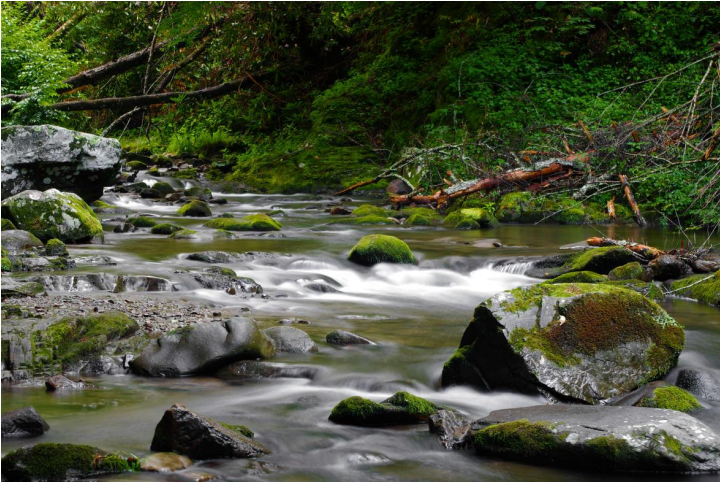
Susceptible

E. cirrigera Habitat



- Stream in Blount Co., Tennessee
 - Physiographic Region:
 - Appalachian Highlands
 - Elevation of site:
 - < 2,000 ft above sea level
 - Climate:
 - Cold winters & warm humid summers
 - Land use surrounding site:
 - Protected lands within National Park
 - Pressures on ecosystem from continuous visitation, decline in water quality

Species that interact with *E. cirrigera*



- Seven species interact with *E. cirrigera* in streams
 - Spotted Dusky (*Desmognathus conanti*)
 - Shovel-nosed (*Desmognathus marmoratus*)
 - Seal salamander (*Desmognathus monticola*)
 - Black-bellied (*Desmognathus quadramaculatus*)
 - Long-tailed (*Eurycea longicauda*)
 - Eastern red-spotted newt (*Notophthalmus viridescens*)
 - Green frog (*Lithobates clamitans*)



D. conanti



D. marmoratus



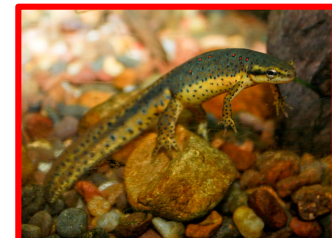
D. monticola



D. quadramaculatus



E. longicauda



N. viridescens



L. clamitans