

SUPPORTING INFORMATION

Potential change in the distribution of an abundant and wide-ranging forest salamander in a context of climate change

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Appendix S1 Additional acknowledgements and references used for the database.

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Appendix S2 Specific parameter settings used in models.

- GBM=list(n.trees=2000)
- GAM=list(k=3)
- MAXENT.Phillips = list(path_to_maxent.jar = "U:/SPlus/jar")

Figs. S1–S5

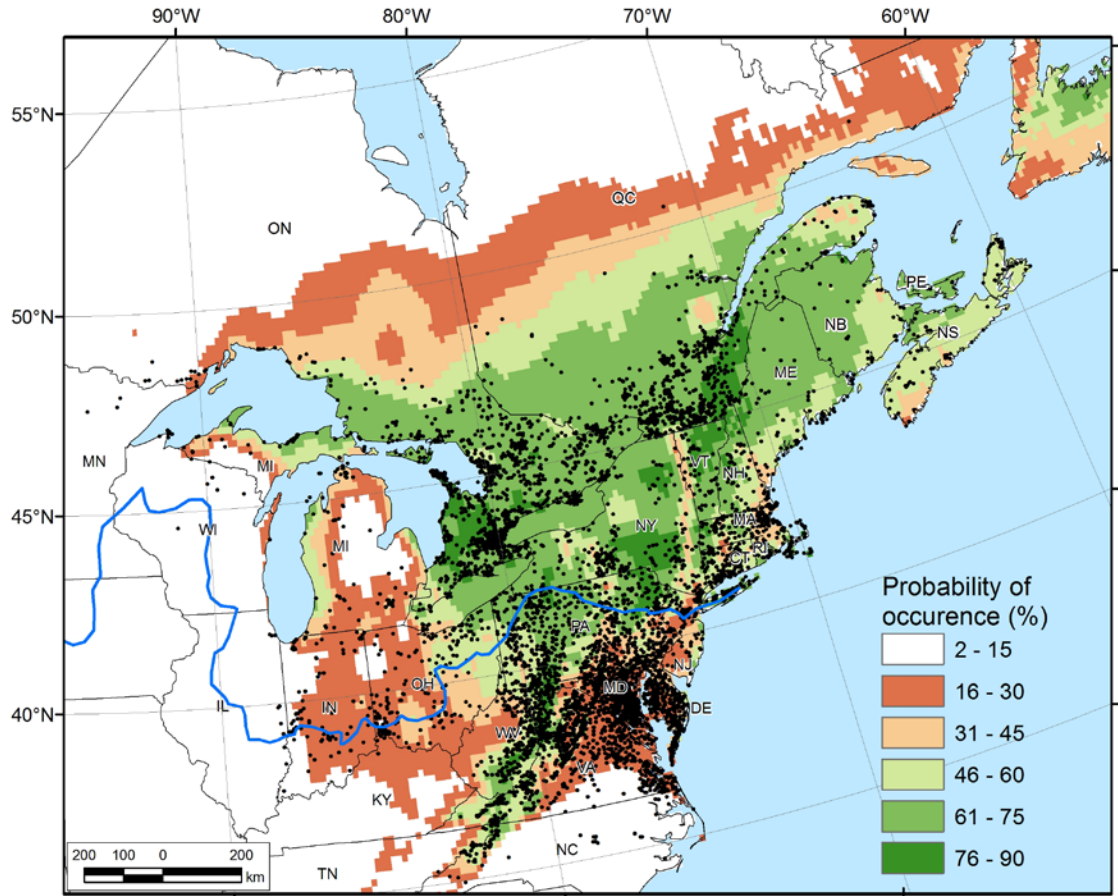


Figure S1 Future modeled distribution (probability of occurrence) of the eastern red-backed salamander (*Plethodon cinereus*) in North America, based on RCP2.6 (representative concentration pathways) of greenhouse gas emissions scenarios (WorldClim Version 1.4), and a compilation of 400,090 observations dating from 1913 to 2013 in 8302 localities (dots). The solid blue line represents the limit of the continental ice sheet during the last glacial maximum (ca. 15 000 years ago). Province/state abbreviations and number of sites/populations for each province or state are given in Table 2.

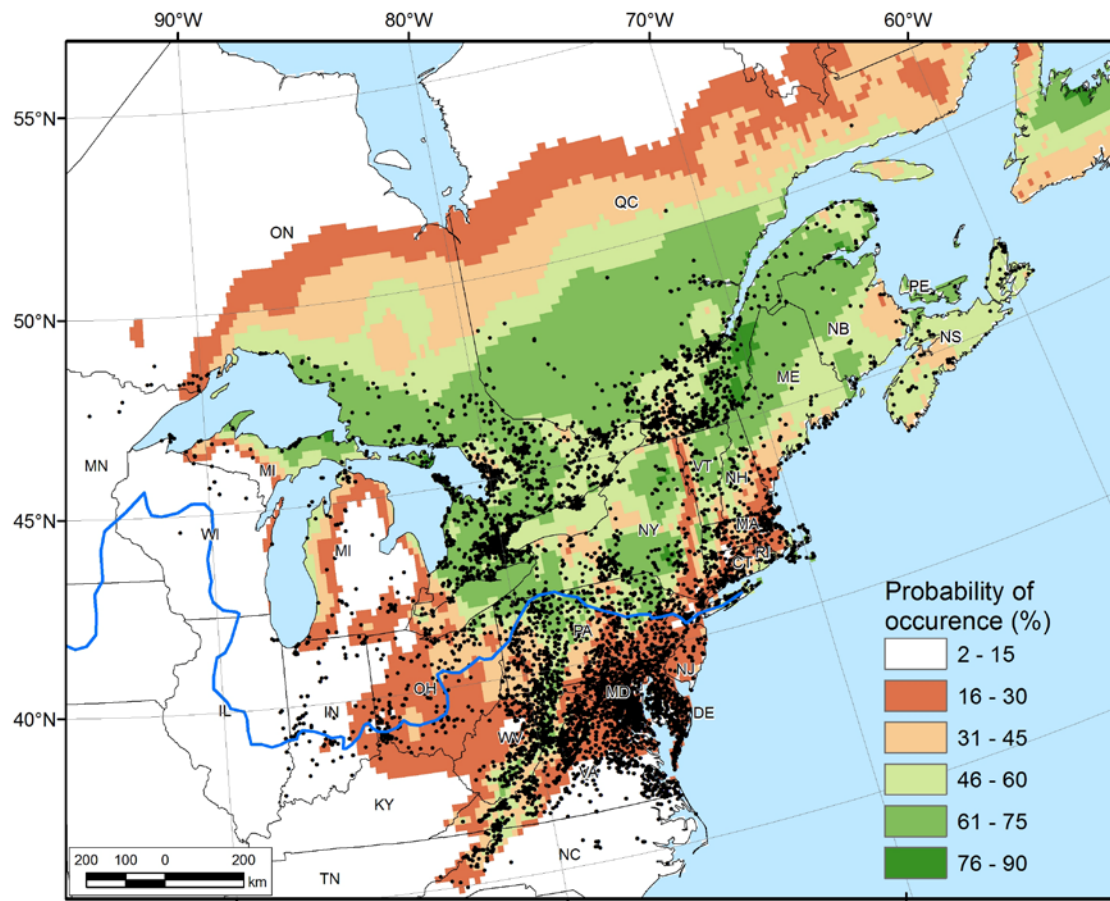


Figure S2 Future modeled distribution (probability of occurrence) of the eastern red-backed salamander (*Plethodon cinereus*) in North America, based on RCP4.5 (representative concentration pathways) of greenhouse gas emissions scenarios (WorldClim Version 1.4), and a compilation of 400,090 observations dating from 1913 to 2013 in 8302 localities (dots). The solid blue line represents the limit of the continental ice sheet during the last glacial maximum (ca. 15 000 years ago). Province/state abbreviations and number of sites/populations for each province or state are given in Table 2.

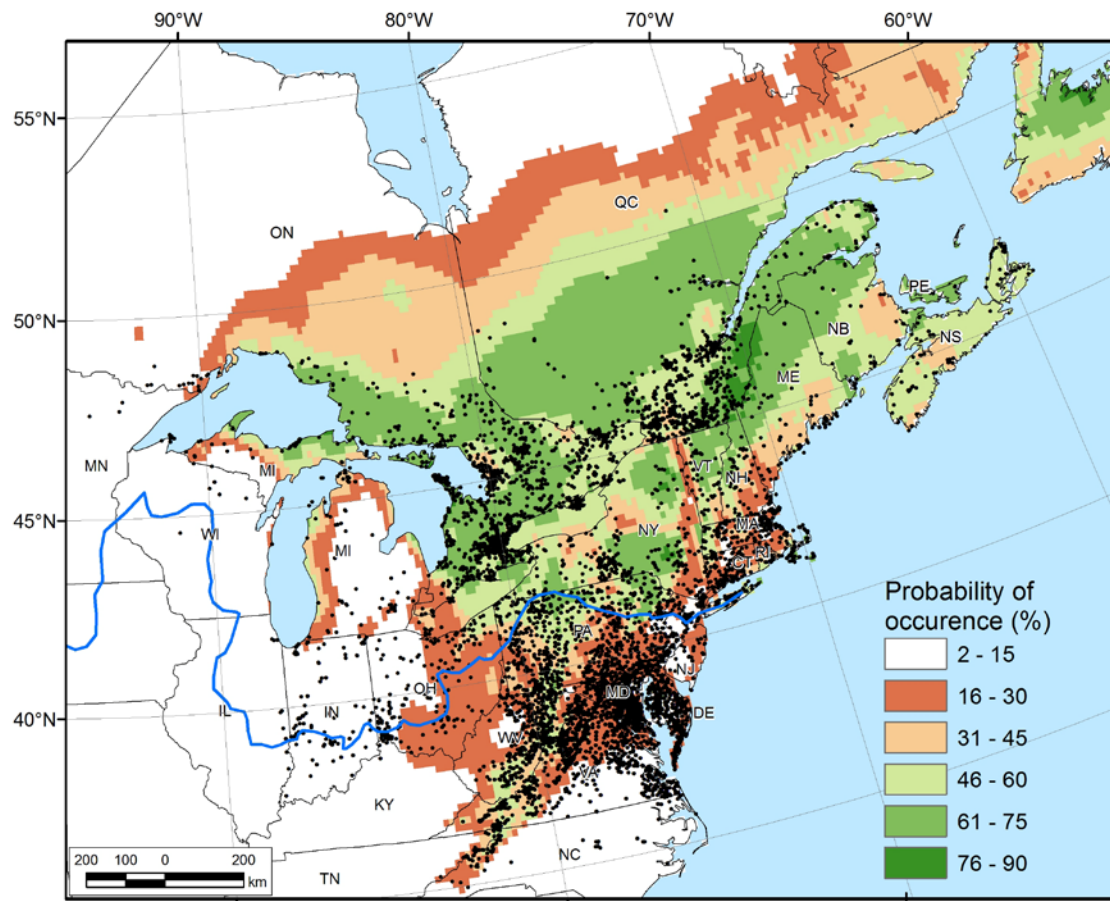


Figure S3 Future modeled distribution (probability of occurrence) of the eastern red-backed salamander (*Plethodon cinereus*) in North America, based on RCP6.0 (representative concentration pathways) of greenhouse gas emissions scenarios (WorldClim Version 1.4), and a compilation of 400,090 observations dating from 1913 to 2013 in 8302 localities (dots). The solid blue line represents the limit of the continental ice sheet during the last glacial maximum (ca. 15 000 years ago). Province/state abbreviations and number of sites/populations for each province or state are given in Table 2.

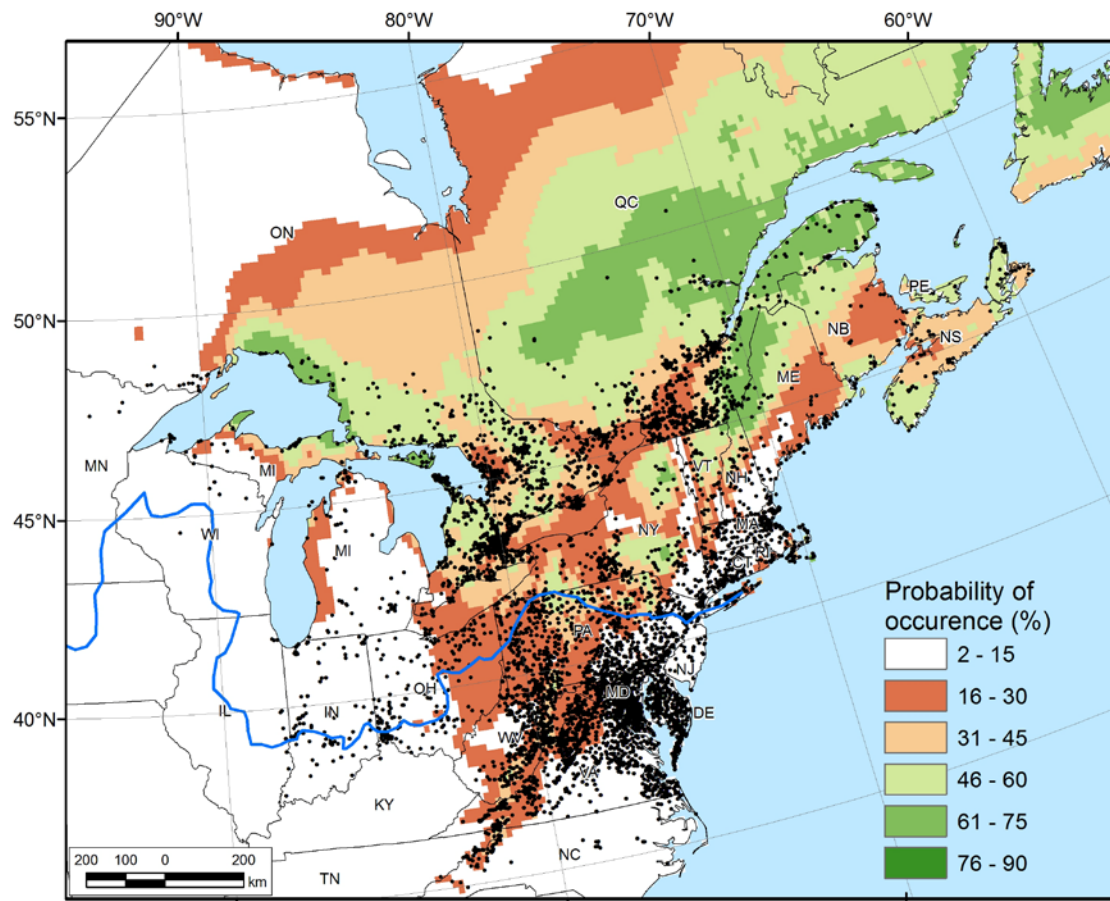


Figure S4 Future modeled distribution (probability of occurrence) of the eastern red-backed salamander (*Plethodon cinereus*) in North America, based on RCP8.5 (representative concentration pathways) of greenhouse gas emissions scenarios (WorldClim Version 1.4), and a compilation of 400,090 observations dating from 1913 to 2013 in 8302 localities (dots). The solid blue line represents the limit of the continental ice sheet during the last glacial maximum (ca. 15 000 years ago). Province/state abbreviations and number of sites/populations for each province or state are given in Table 2.

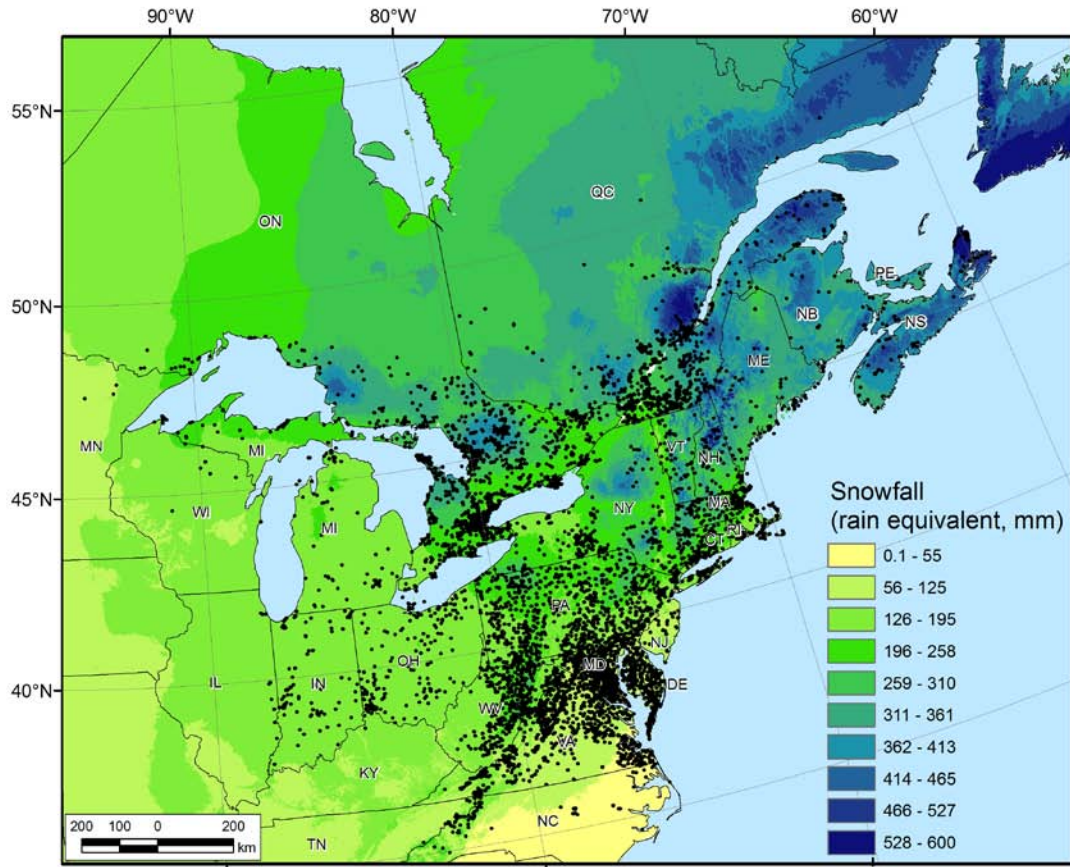


Figure S5 Snowfall (rain equivalent, mm) estimated with BioSIM from climatic normal (from 1981 to 2010).