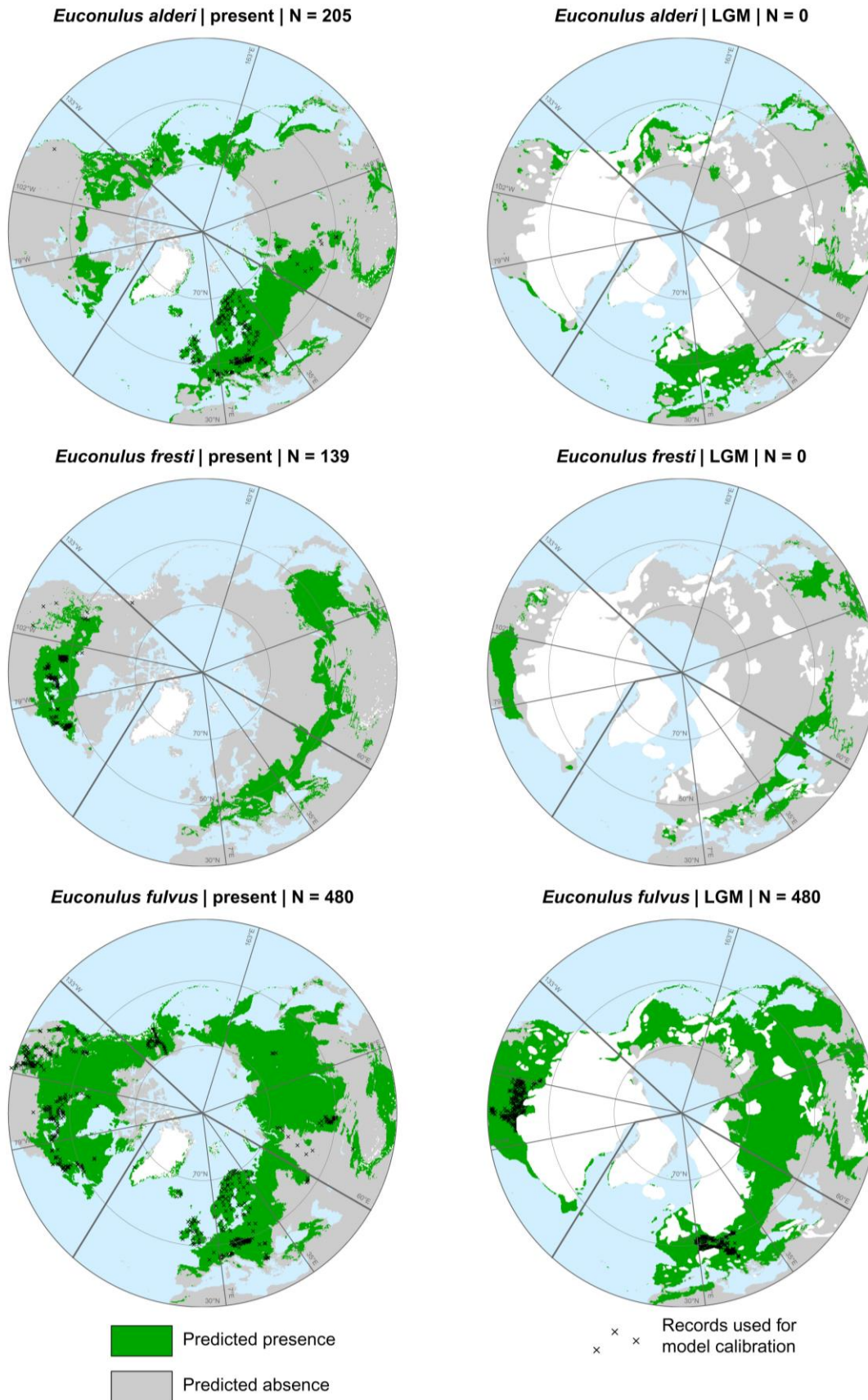
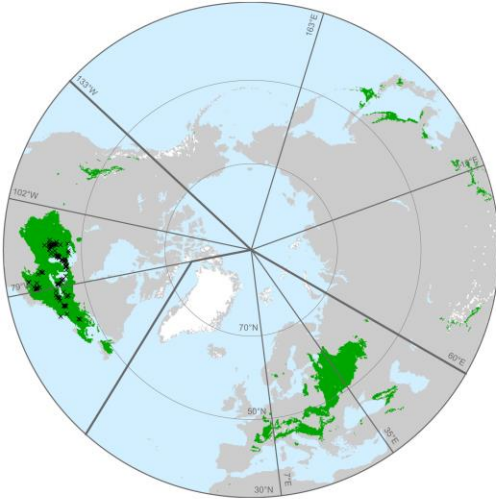


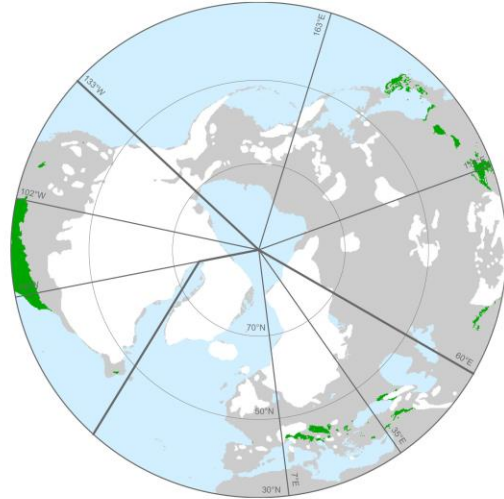
Data S1. Predicted potential ranges, with numbers and location of pruned modern occurrences and LGM quasi-occurrences used in generation of Maxent climate envelopes.



Euconulus polygyratus | present | N = 106



Euconulus polygyratus | LGM | N = 0



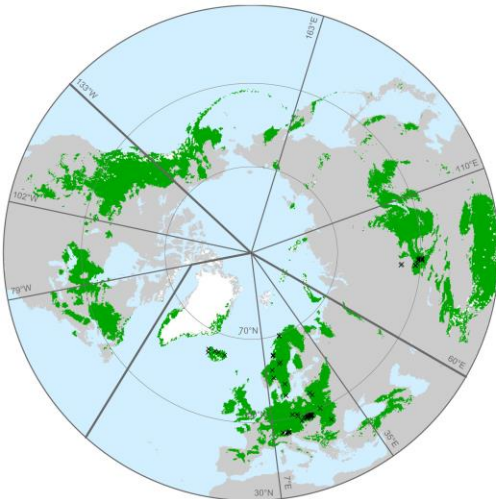
Pupilla alaskensis | present | N = 63



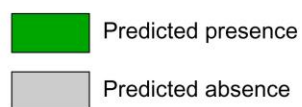
Pupilla alaskensis | LGM | N = 0



Pupilla alpicola | present | N = 80

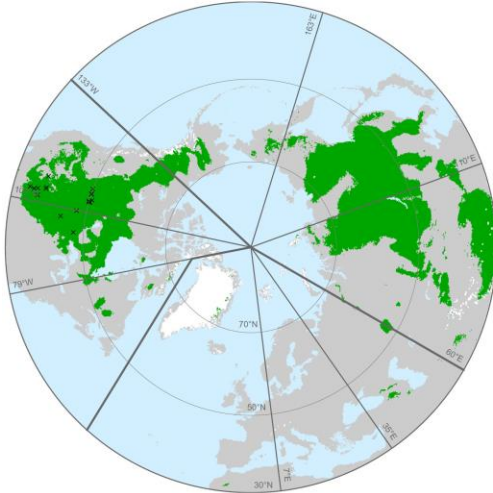


Pupilla alpicola | LGM | N = 80



× ×
Records used for model calibration

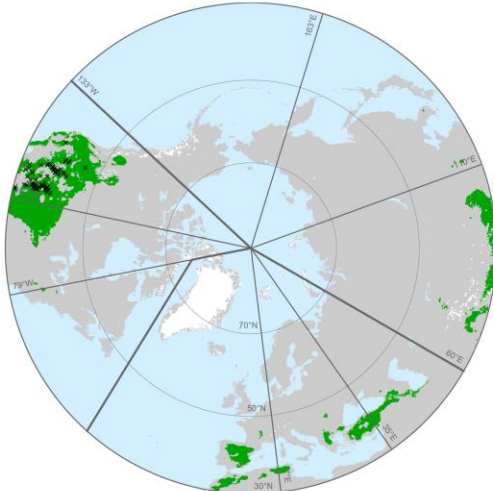
Pupilla blandi | present | N = 24



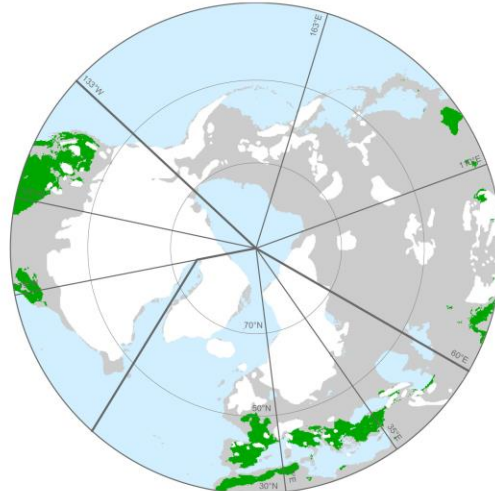
Pupilla blandi | LGM | N = 24



Pupilla hebes | present | N = 81



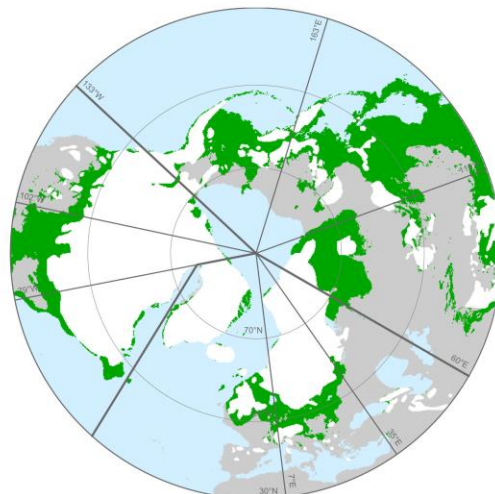
Pupilla hebes | LGM | N = 0



Pupilla hokkaidoensis | present | N = 6

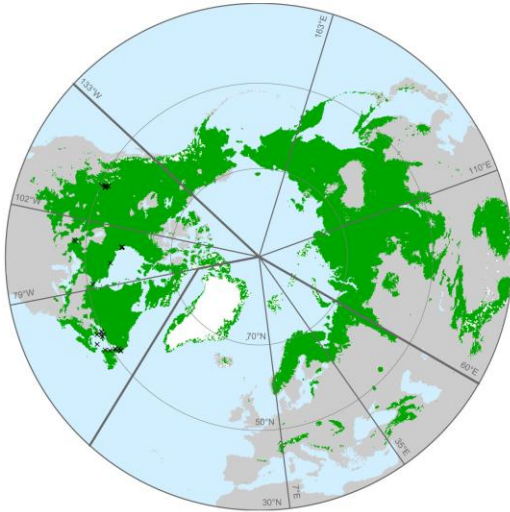


Pupilla hokkaidoensis | LGM | N = 0

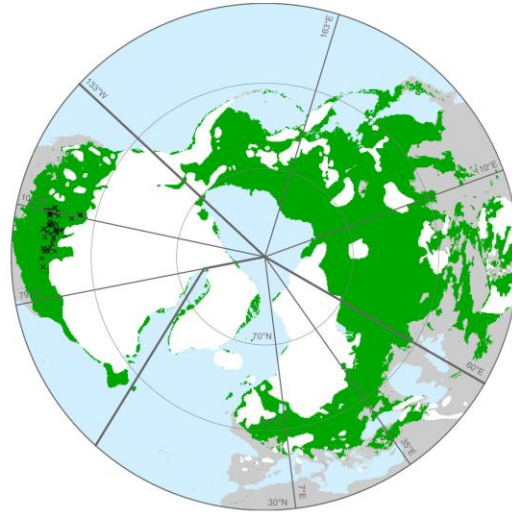


× × × Records used for model calibration

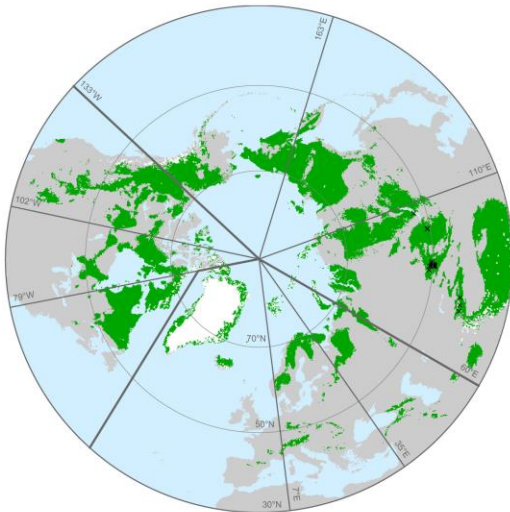
Pupilla hudsonianum | present | N = 49



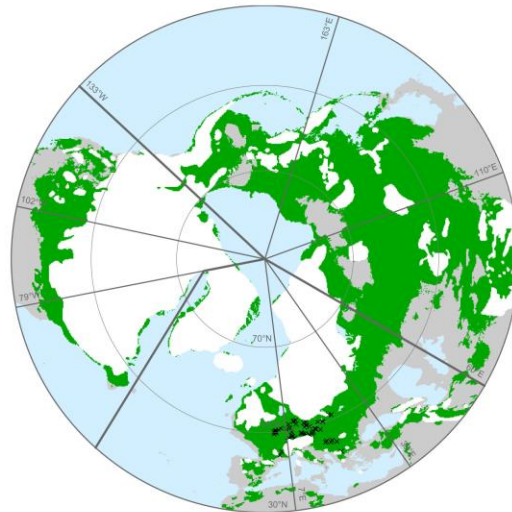
Pupilla hudsonianum | LGM | N = 49



Pupilla loessica | present | N = 57



Pupilla loessica | LGM | N = 57



Pupilla muscorum | present | N = 134

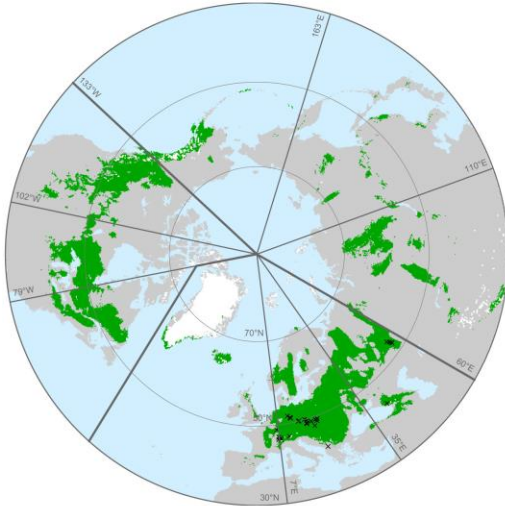


Pupilla muscorum | LGM | N = 134

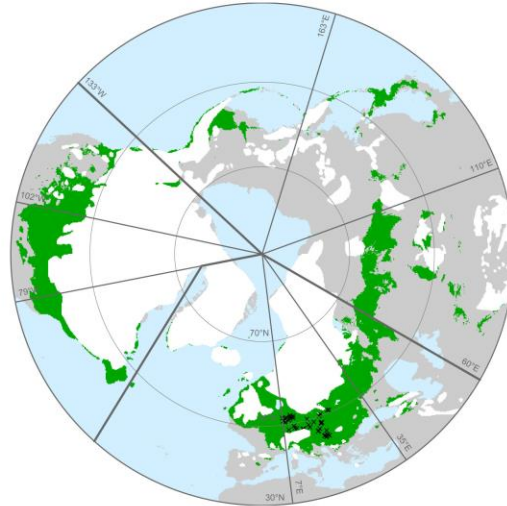


× × ×
Records used for
model calibration

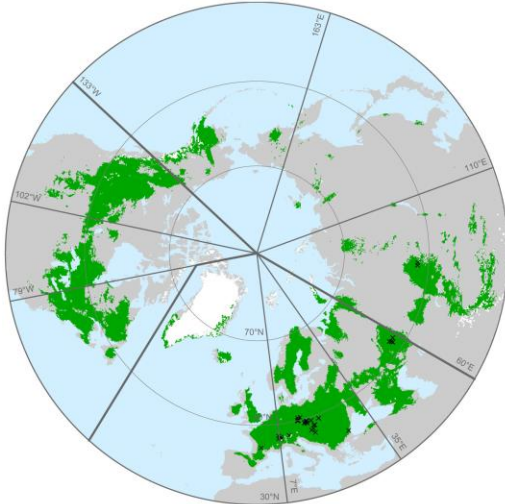
Pupilla sterrii | present | N = 44



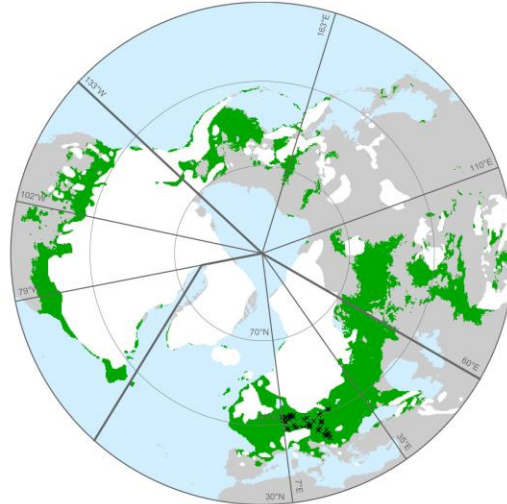
Pupilla sterrii | LGM | N = 44



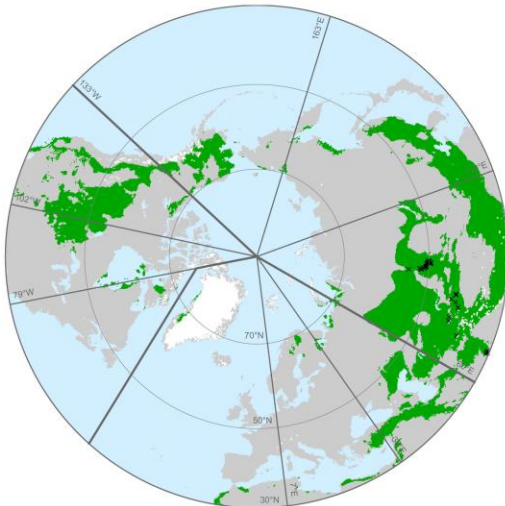
Pupilla triplicata | present | N = 51



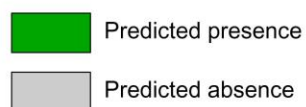
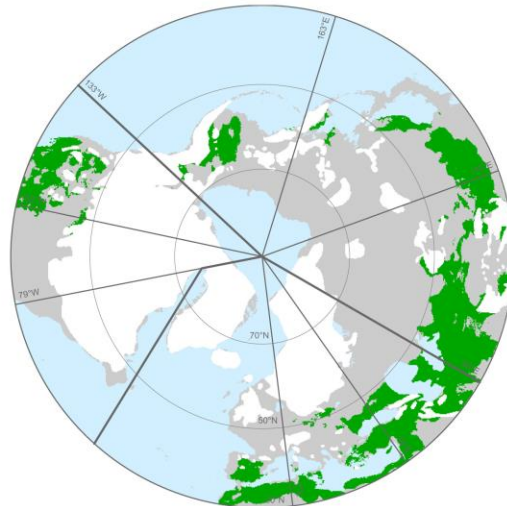
Pupilla triplicata | LGM | N = 51



Pupilla turcmenia | present | N = 57

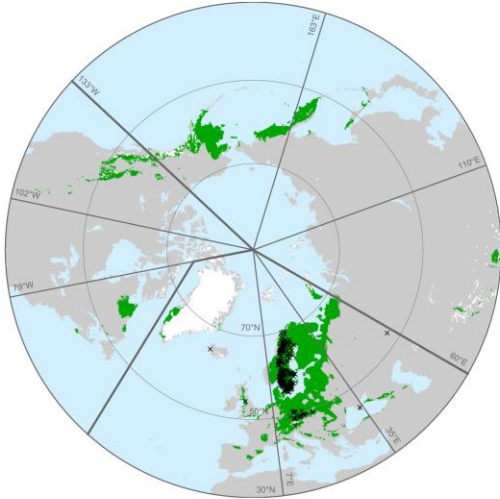


Pupilla turcmenia | LGM | N = 0

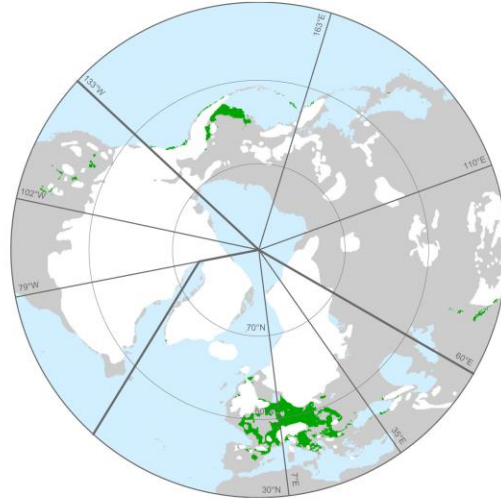


× × ×
Records used for
model calibration

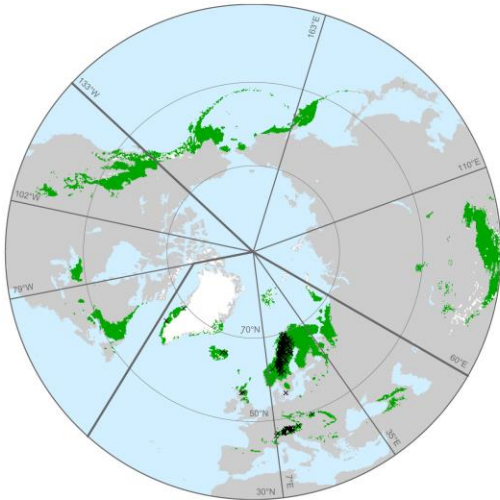
***Vertigo alpestris* | present | N = 200**



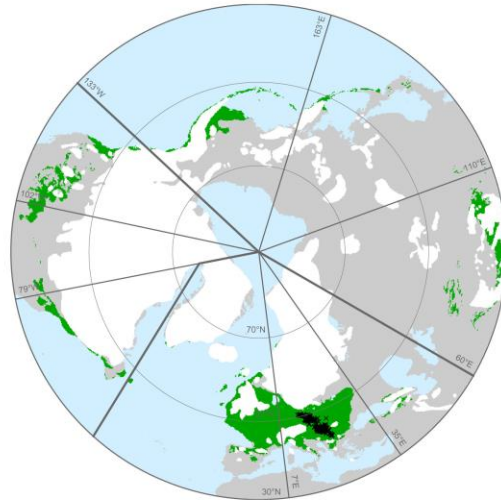
***Vertigo alpestris* | LGM | N = 0**



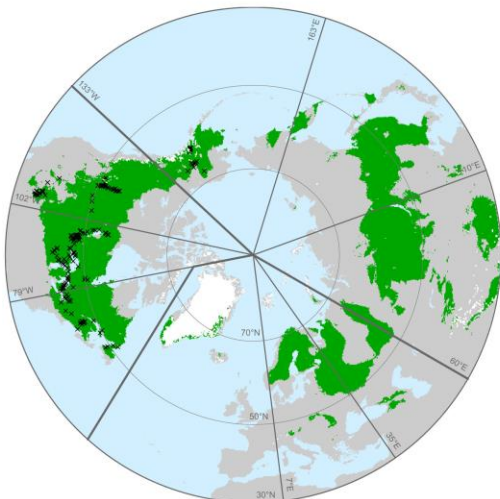
***Vertigo arctica* | present | N = 199**



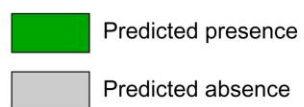
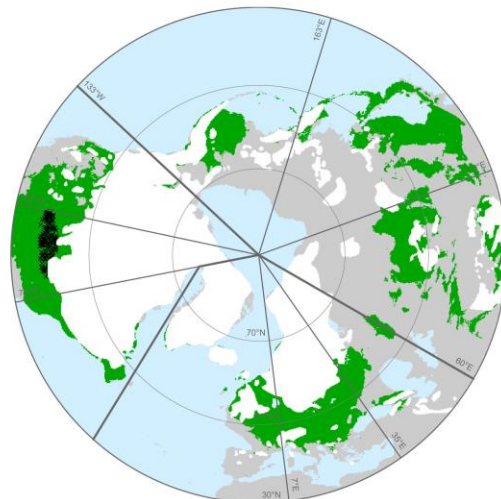
***Vertigo arctica* | LGM | N = 199**



***Vertigo arthuri* | present | N = 171**



***Vertigo arthuri* | LGM | N = 171**



x x
x x Records used for model calibration

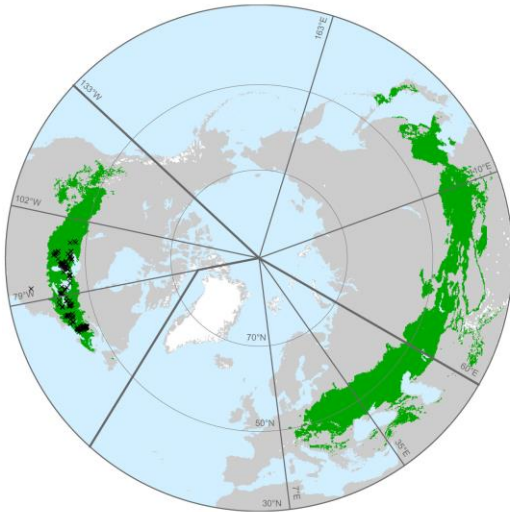
Vertigo beringiana | present | N = 57



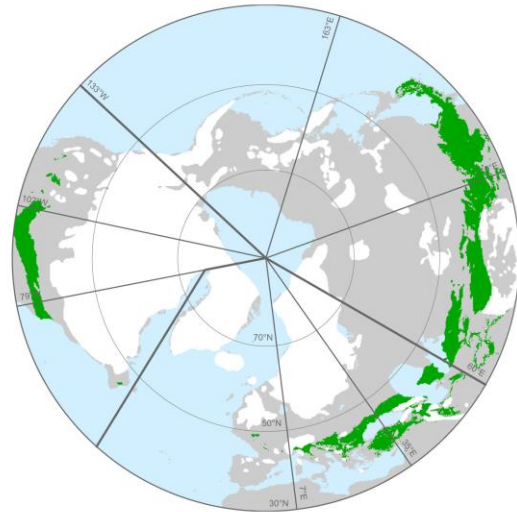
Vertigo beringiana | LGM | N = 0



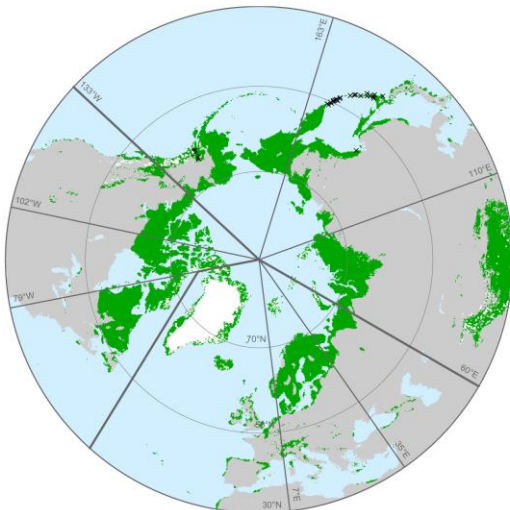
Vertigo bollesiana | present | N = 133



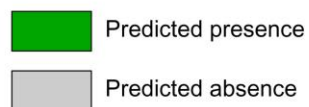
Vertigo bollesiana | LGM | N = 0



Vertigo circumlabiata | present | N = 44

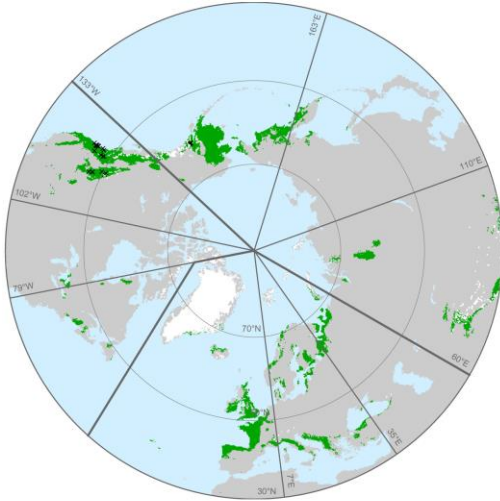


Vertigo circumlabiata | LGM | N = 0

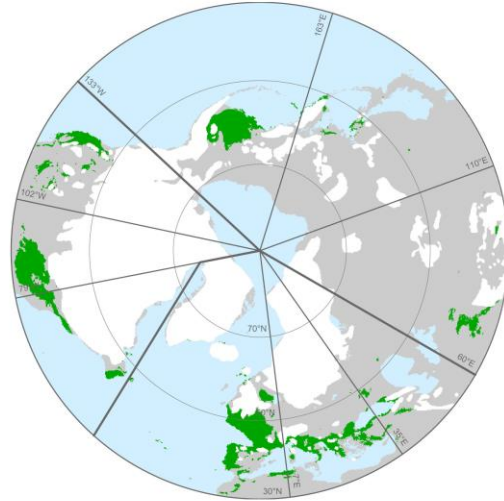


× ×
× × Records used for
model calibration

Vertigo columbiana | present | N = 43



Vertigo columbiana | LGM | N = 0



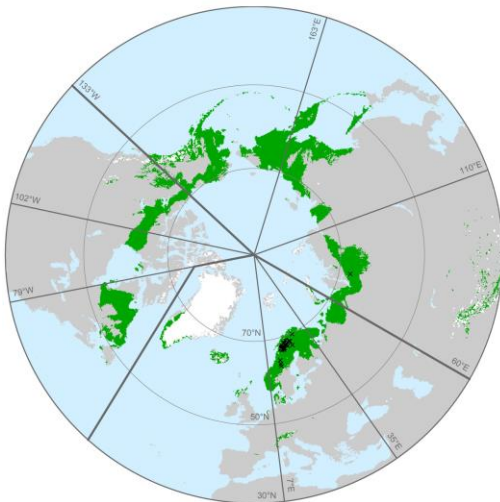
Vertigo cristata agg. | present | N = 190



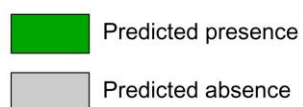
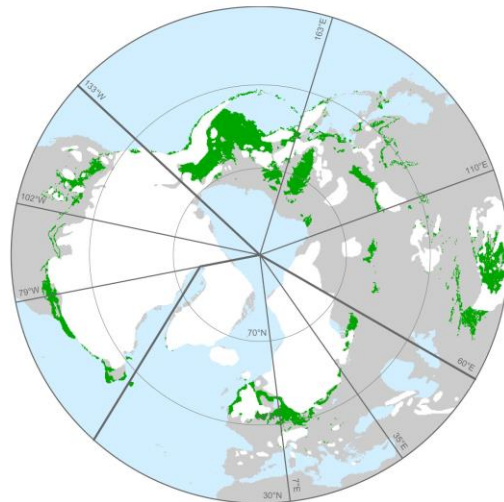
Vertigo cristata agg. | LGM | N = 0



Vertigo extima | present | N = 45

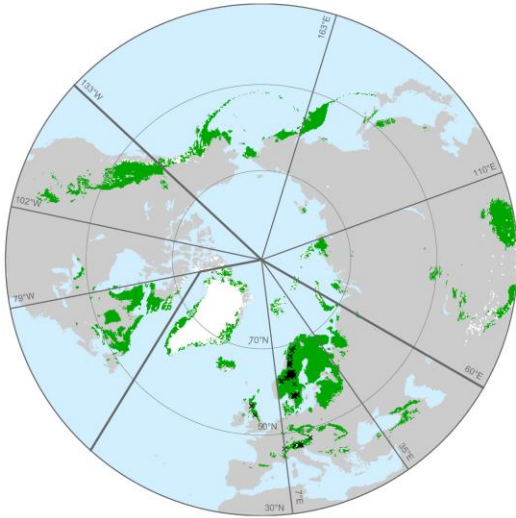


Vertigo extima | LGM | N = 0



× × ×
Records used for model calibration

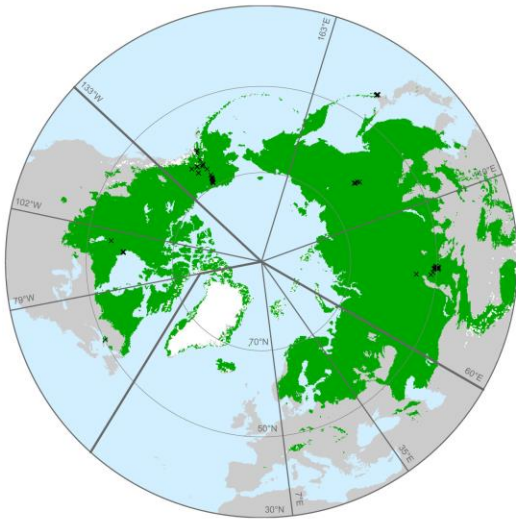
***Vertigo genesii* | present | N = 80**



***Vertigo genesii* | LGM | N = 80**



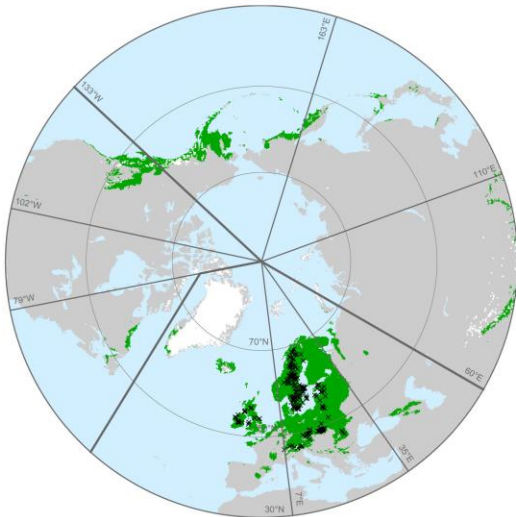
***Vertigo genesioides* | present | N = 80**



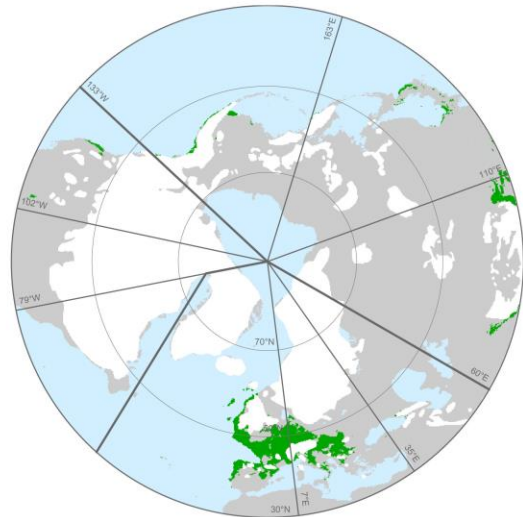
***Vertigo genesioides* | LGM | N = 0**



***Vertigo geyeri* | present | N = 204**

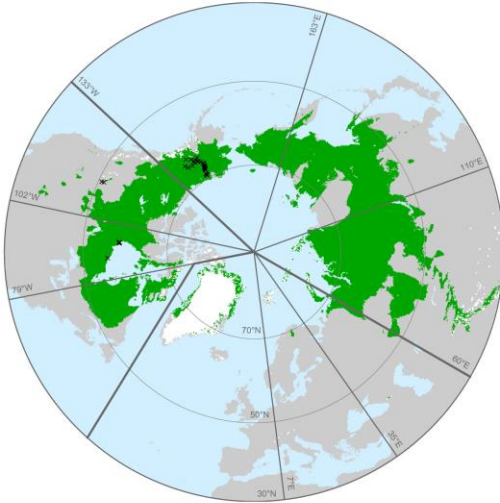


***Vertigo geyeri* | LGM | N = 0**

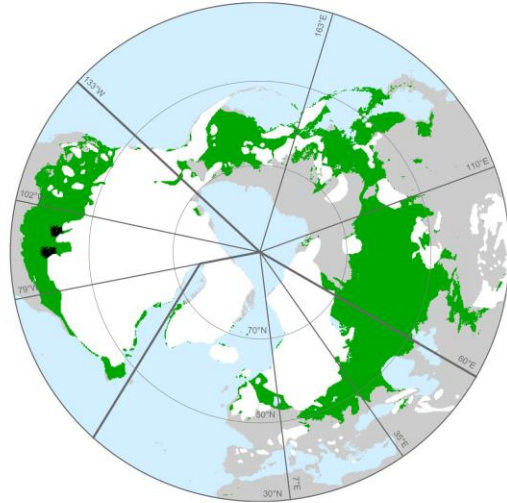


× × ×
Records used for model calibration

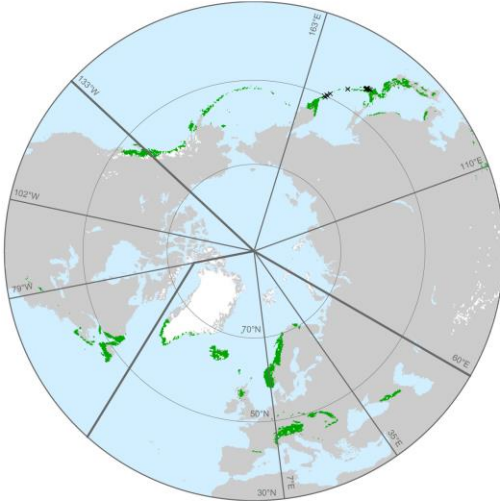
Vertigo hannai | present | N = 78



Vertigo hannai | LGM | N = 78



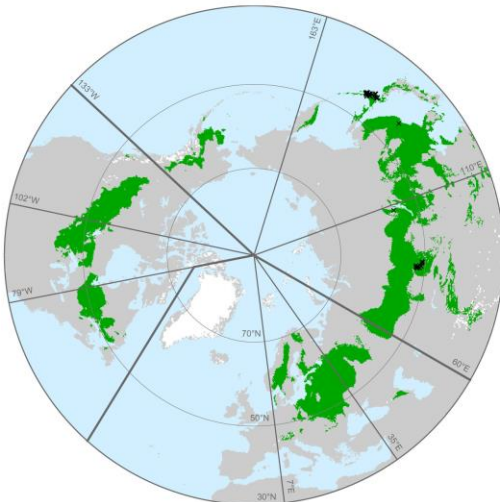
Vertigo kurilensis | present | N = 14



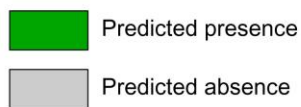
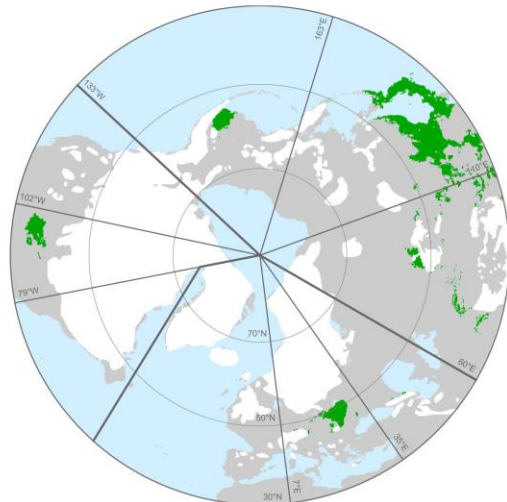
Vertigo kurilensis | LGM | N = 0



Vertigo kushiroensis | present | N = 65



Vertigo kushiroensis | LGM | N = 0



× × ×
× × Records used for model calibration

Vertigo lilljeborgi | present | N = 220



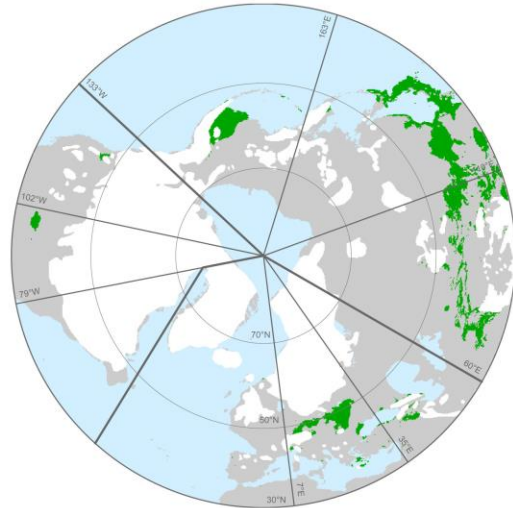
Vertigo lilljeborgi | LGM | N = 0



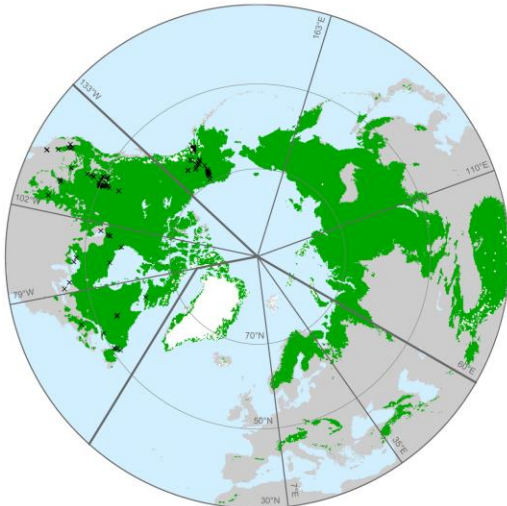
Vertigo microsphaera | present | N = 51



Vertigo microsphaera | LGM | N = 0




Vertigo modesta | present | N = 107



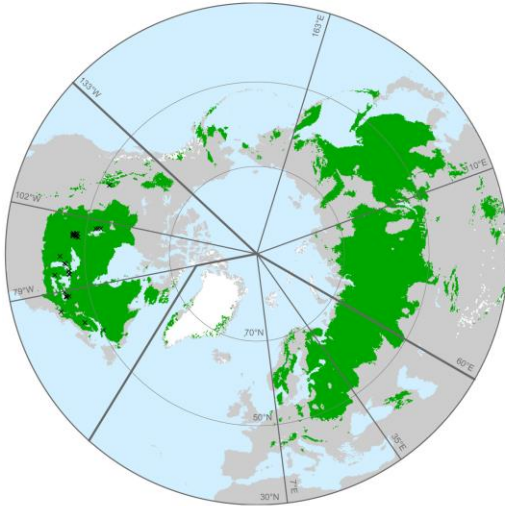
Vertigo modesta | LGM | N = 107



 Predicted presence
 Predicted absence

   Records used for model calibration

Vertigo morsei | present | N = 43



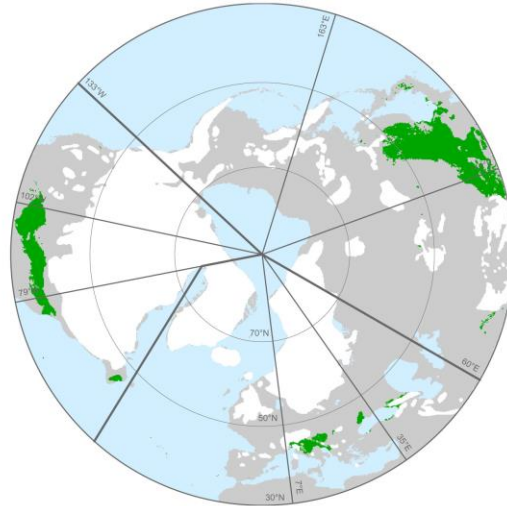
Vertigo morsei | LGM | N = 43



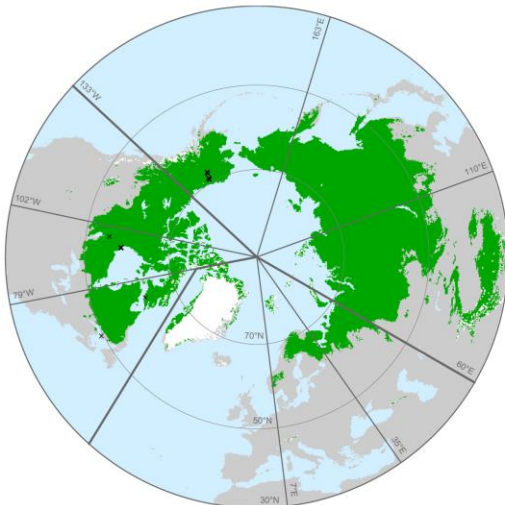
Vertigo nylanderi | present | N = 80



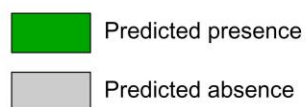
Vertigo nylanderi | LGM | N = 0



Vertigo oughtoni | present | N = 35

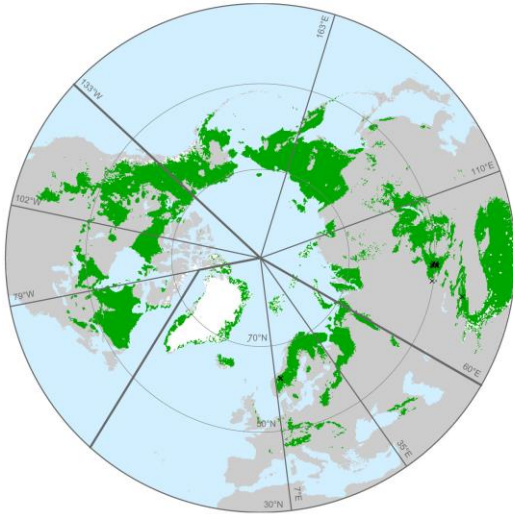


Vertigo oughtoni | LGM | N = 0

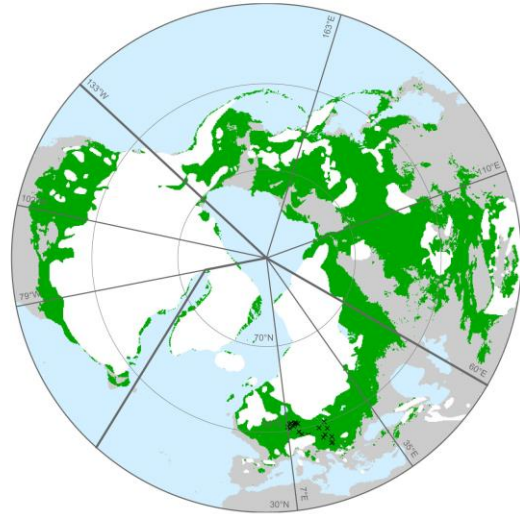


Records used for model calibration

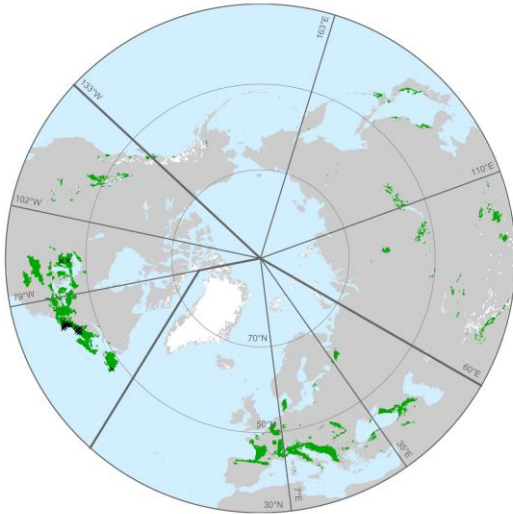
Vertigo parcedentata | present | N = 21



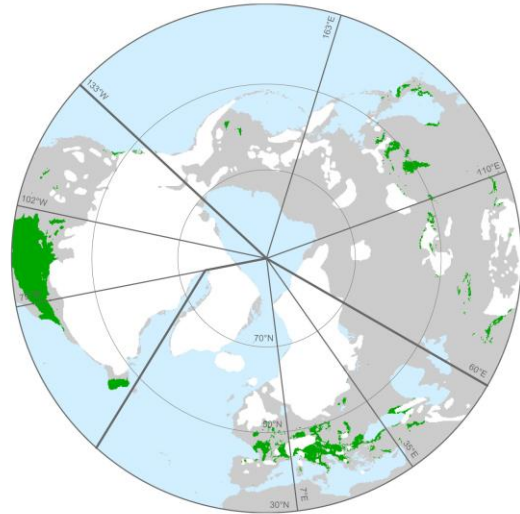
Vertigo parcedentata | LGM | N = 21



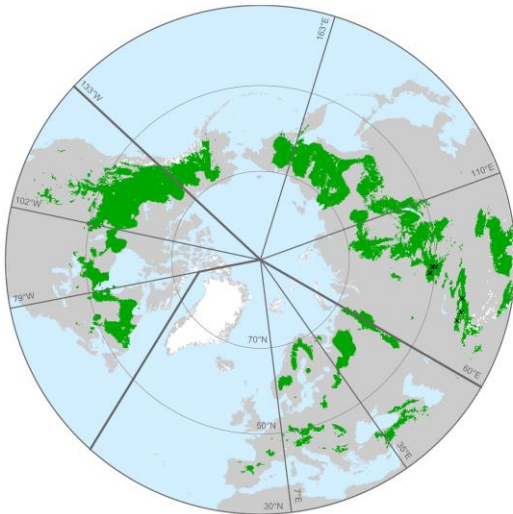
Vertigo perryi | present | N = 47



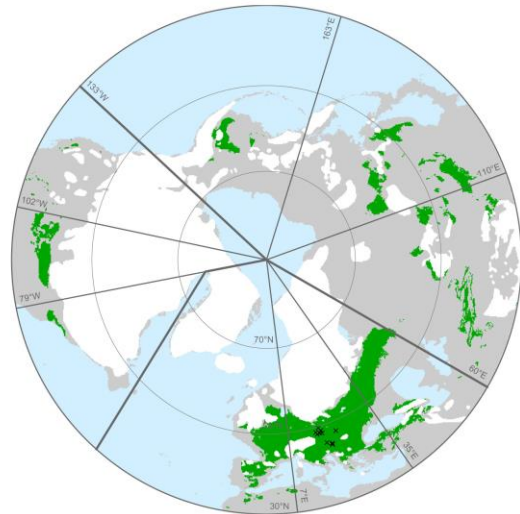
Vertigo perryi | LGM | N = 0



Vertigo pseudosubstriata | present | N = 11

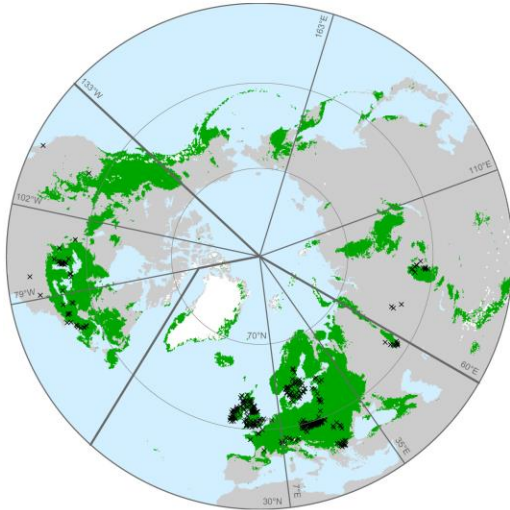


Vertigo pseudosubstriata | LGM | N = 11

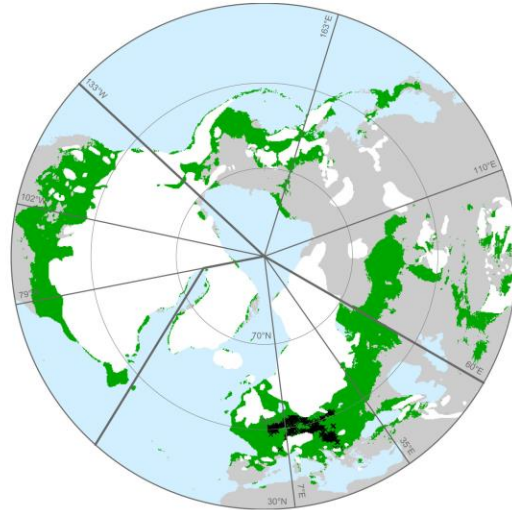


× × × Records used for model calibration

Vertigo pygmaea | present | N = 340



Vertigo pygmaea | LGM | N = 340



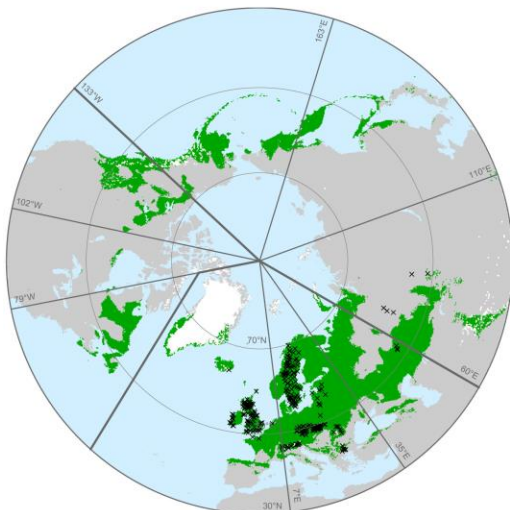
Vertigo ronnebyensis | present | N = 181



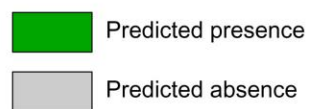
Vertigo ronnebyensis | LGM | N = 0



Vertigo substriata | present | N = 295

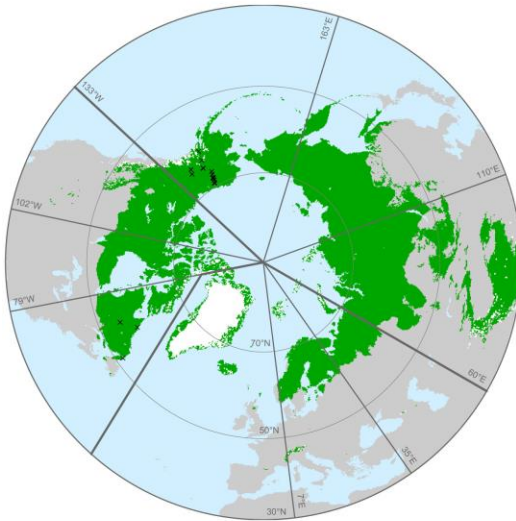


Vertigo substriata | LGM | N = 0



× ×
× × Records used for model calibration

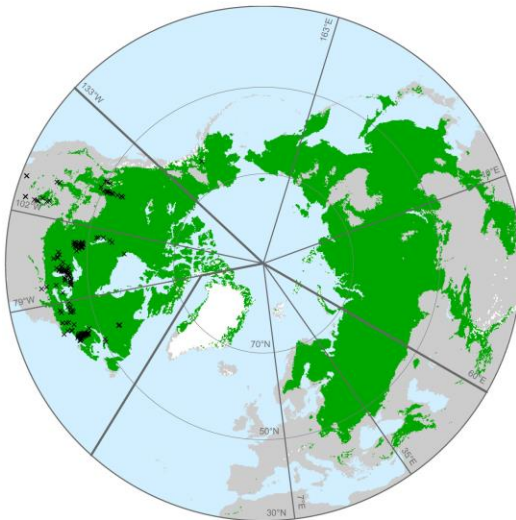
Vertigo ultima | present | N = 26



Vertigo ultima | LGM | N = 0



Vertigo ventricosa | present | N = 163



Vertigo ventricosa | LGM | N = 163

