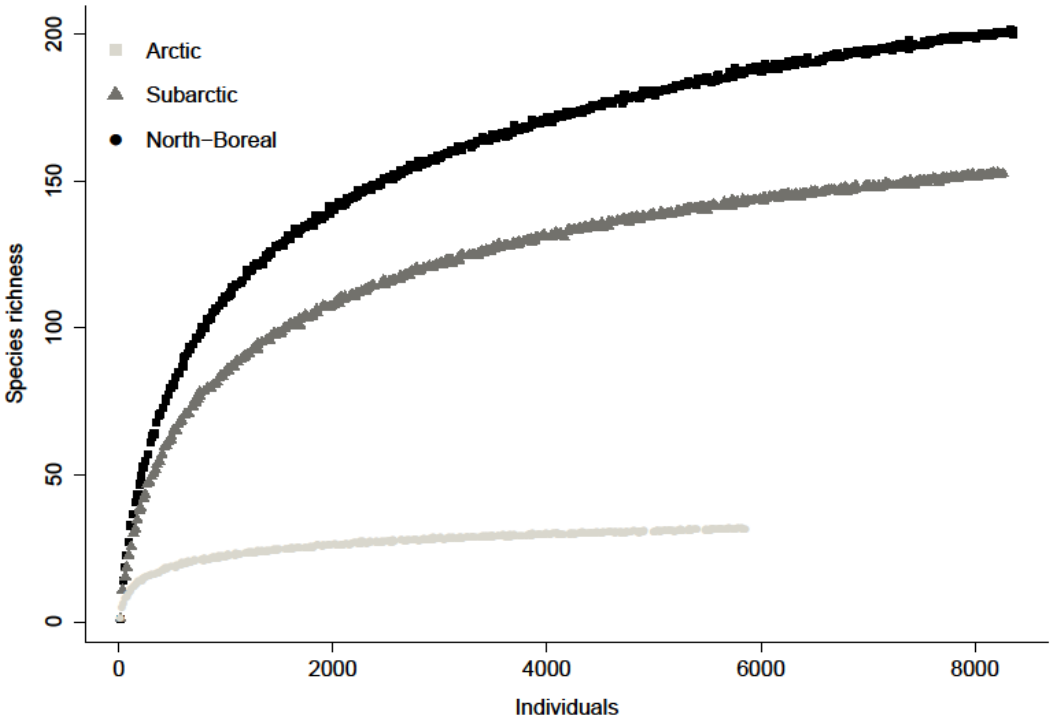

Figure 1. Individual-based rarefaction curves of the species richness of ground-dwelling spiders in three ecoclimatic regions (Arctic, Subarctic and North-Boreal), in northern Canada.

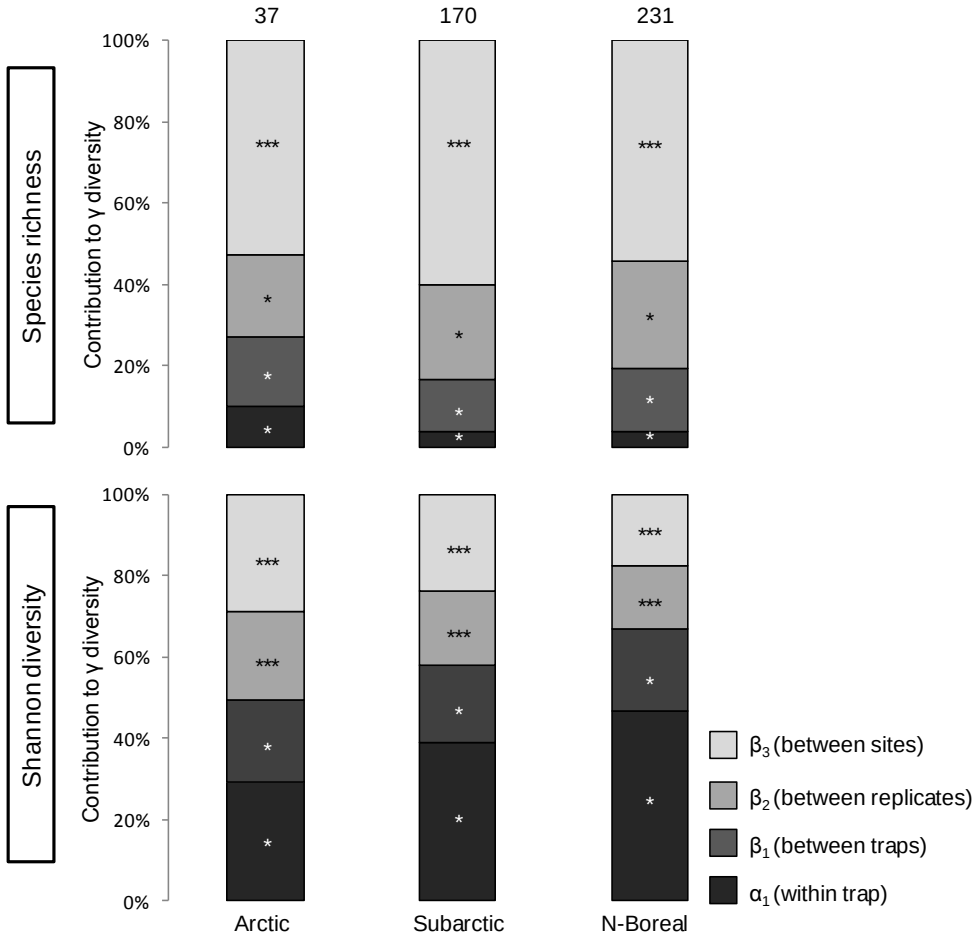

Figure 5.Percentage of spider species richness (306 species) and Shannon diversity explained by α and β components within each ecoclimatic region: Arctic (γ=37 species), Subarctic (γ=170 species) and North-Boreal (γ=231 species). Regional diversity was partitioned into mean diversity within trap (α_1), between traps (β_1), between replicates (β_2) and between sites (β_3). Asterisk indicates that the observed diversity at a level is significantly different than random expectations (***: significantly higher than expected (P<0.01), **: significantly higher than expected (P<0.05) and *: significantly lower than expected (P>0.9)).

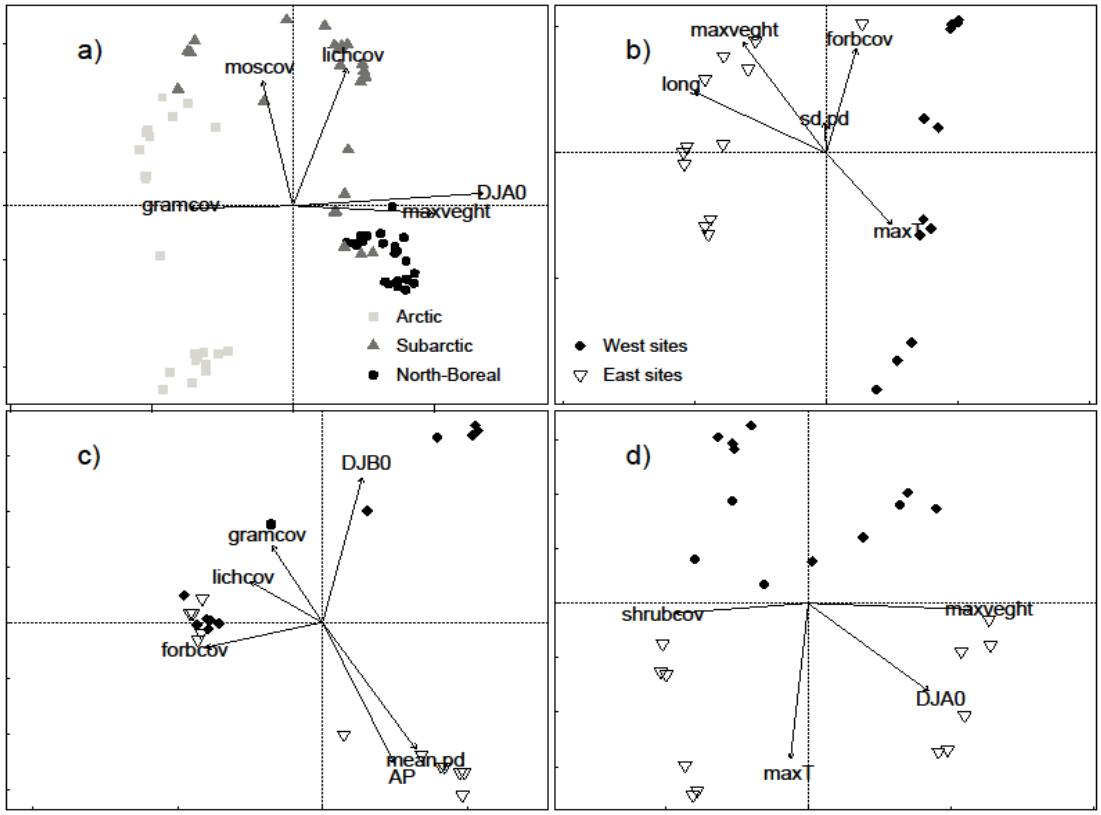

Figure 6. RDA biplot of the Hellinger-transformed spider data constrained by environmental variables, scaling 2, for the a) entire community, b) the Arctic ecoclimatic region, c) the Subarctic ecoclimatic region and d) the North-Boreal ecoclimatic region. Environmental variables selected by the forward selection: gramcov=cover of graminoids, moscov=cover of mosses, lichcov=cover of lichens, forbcov=cover of forbs, maxveght=maximum vegetation height, long=longitude, sd.pd= standard deviation of active layer' depth, mean.pd= average depth of active layer, maxT= maximum temperature of the warmest month of the site, DJA0= degree days above zero at the site, DJB0= degree day below zero at the site, AP= annual precipitation.