

Laura M. Ladwig, Zak R. Ratajczak, Troy W. Ocheltree, Katya A. Hafich, Amber C. Churchill, Sarah J. K. Frey, Colin B. Fuss, Clare E. Kazanski, Juan D. Muñoz, Matthew D. Petrie, Andrew B. Reinmann, Jane G. Smith. Beyond arctic and alpine: the influence of winter climate on temperate ecosystems. *Ecology*

APPENDIX S1. Specific details about the biotic datasets used in the CCP analysis

TABLE S1. Additional information about each biotic dataset. Full names of LTER Site abbreviations can be found in Table 1.

| LTER Site | Consumer or Producer | | Mean (±S.E.) | Sub-group, if applicable | First | Last | Dataset length (years) |
|-----------|----------------------|------------------|--------------|--------------------------|--------------|------|------------------------|
| | Type of Data | Year of Data | | | Year of Data | | |
| AND | producer | species richness | 10.0 ± 0.4 | herbs | 1962 | 2008 | 20 |
| AND | producer | species richness | 2.0 ± 0.1 | shrubs | 1962 | 2008 | 20 |
| AND | producer | species richness | 1.2 ± 0.1 | trees | 1962 | 2008 | 20 |
| BNZ | producer | phenology | - | - | 1976 | 2012 | 36 |
| BNZ | producer | species richness | 3.0 ± 1.2 | - | 1975 | 2012 | 37 |
| | | | 92 ± 15 | <i>Dendroctonus</i> | | | |
| BNZ | consumer | abundance | | <i>simplex</i> | 1975 | 2012 | 37 |
| BNZ | consumer | abundance | 450 ± 75 | <i>Ips perturbatus</i> | 1975 | 2012 | 37 |
| BNZ | consumer | abundance | 88 ± 15 | <i>Dendroctonus</i> | 1975 | 2012 | 37 |

| | | | | <i>rufipennis</i> | | | |
|-----|----------|------------------|------------|-----------------------|------|------|----|
| CDR | producer | species richness | - | - | 1982 | 2004 | 23 |
| CDR | consumer | abundance | - | Caelifera | 1989 | 1998 | 10 |
| CDR | consumer | richness | - | Caelifera | 1989 | 1998 | 10 |
| HBR | producer | phenology | - | <i>Acer saccharum</i> | 1989 | 2012 | 23 |
| | | | - | <i>Fagus</i> | | | |
| HBR | producer | phenology | | <i>grandifolia</i> | 1989 | 2012 | 23 |
| | | | - | <i>Betula</i> | | | |
| HBR | producer | phenology | | <i>alleganiensis</i> | 1989 | 2012 | 23 |
| HBR | consumer | abundance | 20 ± 3.1 | Geometrid | 1986 | 1997 | 11 |
| HBR | consumer | abundance | 5.4 ± 1.2 | Noctuid | 1986 | 1997 | 11 |
| HBR | consumer | abundance | 2.2 ± 0.6 | Notodontid | 1986 | 1997 | 11 |
| HBR | consumer | species richness | 4.9 ± 0.9 | Geometrid | 1986 | 1997 | 11 |
| HBR | consumer | species richness | 1.3 ± 0.2 | Noctuid | 1986 | 1997 | 11 |
| HBR | consumer | species richness | 0.7 ± 0.1 | Notodontid | 1986 | 1997 | 11 |
| | | | - | several woody | | | |
| HFR | producer | phenology | | species | 1990 | 2000 | 10 |
| JRN | producer | species richness | 5.2 ± 0.6 | fall forbs | 1989 | 2010 | 20 |
| JRN | consumer | abundance | 4.6 ± 0.2 | lizards | 1989 | 2006 | 17 |
| KBS | producer | species richness | 29.0 ± 2.8 | - | 1990 | 2013 | 23 |
| KNZ | producer | species richness | 30.5 ± 1.0 | - | 1983 | 2011 | 28 |
| KNZ | producer | phenology | - | woody plants | 1983 | 2011 | 28 |
| NWT | producer | species richness | 23.6 ± 1.2 | - | 1990 | 2000 | 9 |
| NWT | consumer | abundance | 180 ± 26 | rodents | 1981 | 1990 | 9 |
| NWT | consumer | species richness | 8.5 ± 1.1 | rodents | 1981 | 1990 | 9 |

Ladwig et al.

| | | | | | | | |
|-----|----------|------------------|----------------|-------------------|------|------|----|
| SEV | consumer | species richness | 6.7 ± 0.4 | grassland rodents | 1989 | 2012 | 24 |
| SEV | consumer | abundance | 99 ± 11 | grassland rodents | 1989 | 2012 | 24 |
| SEV | producer | species richness | 11.5 ± 0.9 | fall forbs | 1989 | 2012 | 24 |
| SGS | producer | species richness | 4.6 ± 0.3 | - | 1975 | 2011 | 23 |
