

Supplementary material for the paper

Kolari, T. H. M. et al. Reindeer grazing controls willows but has only minor effects on plant communities in Fennoscandian oroarctic mires. *Arctic, Antarctic, and Alpine Research*.

Appendix 1. Table of data availability and quality between separate tests.

| Test | 2002 | 2006 | 2015 | 2016 |
|---|---|--|--|------|
| NMDS* | Exclosure <i>n</i> = 60 Non-grazed <i>n</i> = 60 | . | Grazed <i>n</i> = 45, Exclosure <i>n</i> = 45 Non-grazed <i>n</i> = 27 | . |
| PERMANOVA* | . | . | Grazed <i>n</i> = 45, Exclosure <i>n</i> = 45 | . |
| Linear mixed effect models** | | | | |
| <i>Salix</i> ssp. abundance over time | Exclosure <i>n</i> = 15 Non-grazed <i>n</i> = 15 | Grazed <i>n</i> = 12, Exclosure <i>n</i> = 12, Non-grazed <i>n</i> = 12 | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15, Non-grazed <i>n</i> = 9 | . |
| <i>Salix lapponum</i> height over time | Exclosure <i>n</i> = 15 Non-grazed <i>n</i> = 15 | Grazed <i>n</i> = 12, Exclosure <i>n</i> = 12, Non-grazed <i>n</i> = 12 | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15, Non-grazed <i>n</i> = 15 | . |
| Abundance estimates of plant groups | . | . | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15, Non-grazed <i>n</i> = 9 | . |
| <i>S. lapponum</i> height (cm) | . | . | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15, Non-grazed <i>n</i> = 15 | . |
| <i>S. lapponum</i> leaf area (mm ²) | . | . | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15 Non-grazed <i>n</i> = 15 | . |
| <i>S. lapponum</i> leaf N-concentration (% of dry mass) | . | . | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15, Non-grazed <i>n</i> = 15 | . |
| Number of fertile female willow plants | . | . | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15, Non-grazed <i>n</i> = 15 | . |
| Number of flowering female catkins | . | . | Grazed <i>n</i> = 15, Exclosure <i>n</i> = 15, Non-grazed <i>n</i> = 15 | . |

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|--|---|---|---|---------------------------------------|
| Catkin dry weight (g) | . | . | Grazed $n = 15$, Exclosure $n = 15$, Non-grazed $n = 15$ | . |
| Normalized Difference Vegetation Index (NDVI) | . | . | Grazed $n = 15$ Exclosure $n = 15$ Non-grazed $n = 15$ | . |
| Leaf area index (LAI) | . | . | . | Grazed $n = 15$ Exclosure $n = 15$ |
| <hr/> | | | | |
| * $n = 0.25\text{ m}^2$ subplots ** $n = 5 \times 5\text{ m}$ plots | | | | |