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The dynamics of rush circles in subalpine grassland

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Supplementary material

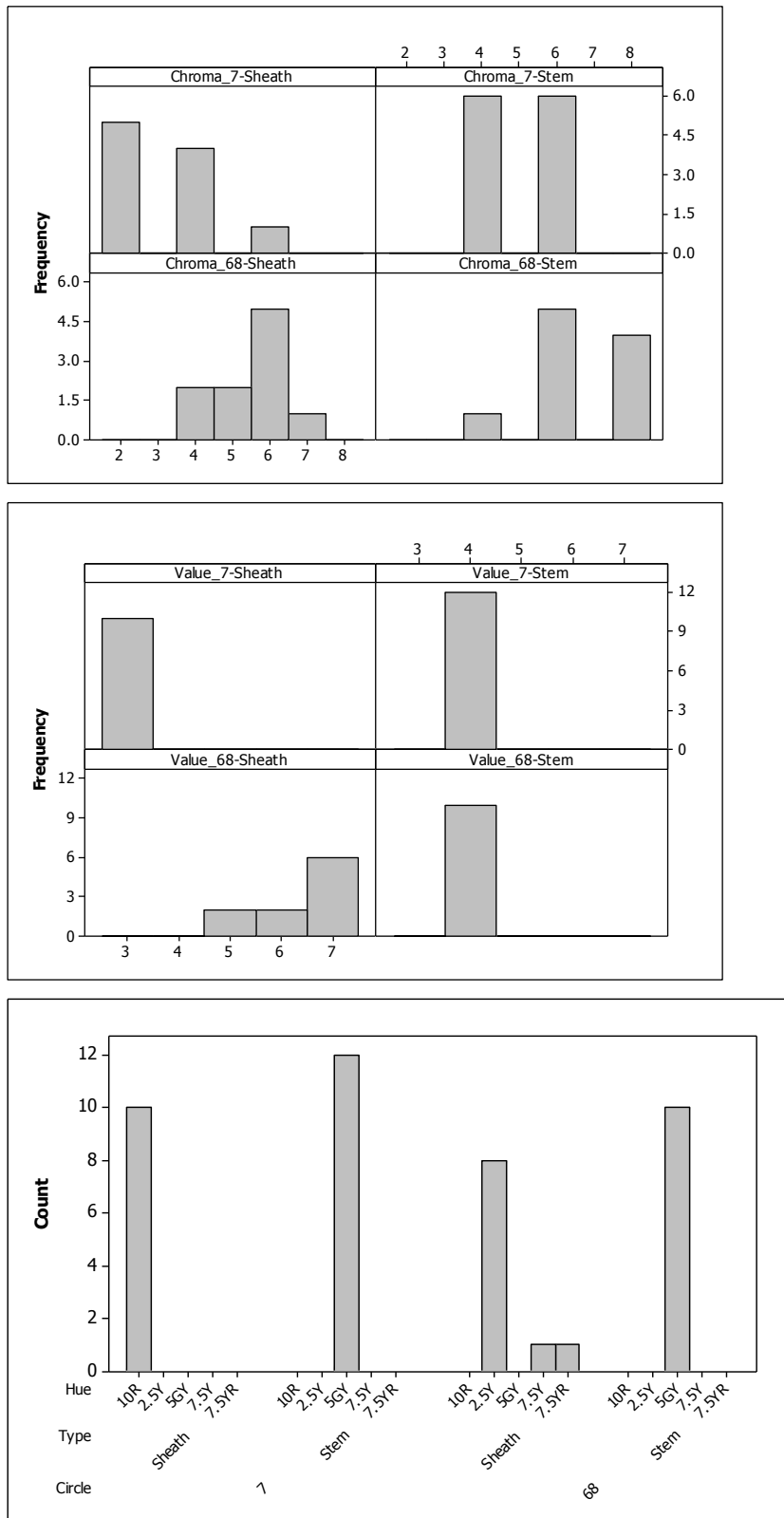


Figure S1. Chroma, value and hue distributions for stems and sheaths in two adjacent *Empodisma* circles.



Figure S2. *Astelia alpina* mound disrupted on its south aspect by freezing in July 2017 and photographed in December 2017.



Figure S3. Suffocating billows of *Empodisma*, senescing to the southwest.

Table S1. Attributes of small circles

Diam	Situation	2 m to East	Type of nearest disturbance
(m)			(without <i>Empodisma</i>)
0.6	Flat	Tussock grassland	Frost-killed <i>Astelia</i> mound
1.3	Flat,shrub&mound	Tussock grassland	Burrow mound herbfield
1.3	Flat	Tussock grassland	Frost-killed <i>Astelia</i> mound
1.5	Flat	Tussock grassland	Frost-killed <i>Astelia</i> mound
1.6	Flat&mound	<i>Empodisma</i> circle	Frost-killed <i>Astelia</i> mound
2.0	Flat	Tussock grassland	No disturbance within 5 m
2.2	Flat	Tussock grassland	Frost-killed <i>Astelia</i> mound
2.2	Flat	Tussock grassland	Frost-killed <i>Astelia</i> mound
2.5	Flat	Tussock grassland	Frost-killed <i>Astelia</i> mound
3.0	Burrow mound edge	Tussock grassland	Burrow mound herbfield