

## 1    **Supporting information**

### 2    **Species and functional differences between subalpine grasslands with and without dwarf shrub encroachment**

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3    **Supplement 1.** Physical characteristics of the *Nardus*–vegetation type and *Vaccinium*–vegetation type, central part of Balkan Mountain Range,  
4    Bulgaria.

#### 5    *Explanatory notes*

6    Data pertaining to the orographic characteristics (altitude, aspect and slope) of each site (6) were derived according to a digitally generated model  
7    of relief using 8 m × 8 m grid size. Calculations were made using Arc GIS Desktop environment. Soil depth data were derived from 3-5 field  
8    measurements within each stand in both N- and V-vegetation types. The sampling was conducted using a hand drill. Here we present the  
9    maximum soil depth value at each stand.

10   **Table S1**Physical characteristics of altitude (m), slope (degrees), aspect and soil depth (cm) derived from each of the study sites, Central Balkan  
11   Mountains, Bulgaria. N and V represent *Nardus*–vegetation type and *Vaccinium*–vegetation type, respectively.

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| <b>Vegetation types</b> | <b>N1</b> | <b>N2</b> | <b>N3</b> | <b>N4</b> | <b>N5</b> | <b>N6</b> | <b>V1</b> | <b>V2</b> | <b>V3</b> | <b>V4</b> | <b>V5</b> | <b>V6</b> |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Altitude (m)            | 1648,4    | 1672,5    | 1579,1    | 1692,2    | 1653,3    | 1673,8    | 1644,7    | 1669      | 1572,8    | 1687,3    | 1645,1    | 1669,1    |
| Slope (degrees)         | 3,9       | 1,3       | 7,8       | 5,1       | 6,5       | 7,7       | 8,8       | 3,5       | 10        | 9,5       | 9,9       | 12,4      |
| Aspect                  | NE        | NE        | NW        | NE        | N         | N         | N         | NW        | N         | N         | N         | N         |
| max. Soil Depht (cm)    | 45        | >50       | >50       | >50       | 40        | 30        | 45        | >50       | >50       | 44        | >50       | 25        |

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