

Table S1 List of species present across the GR-LEO summits (LOW, CHO, SEK and STR) during the 2001 and 2008 surveys, their families, life forms (P=Phanerophyte, Ch=Chamaephyte, H=Hemicryptophyte, G=Geophyte, T=Therophyte) and their endemism to Cretan flora.

| Species | Family | Life form* | Endemism | LOW | | CHO | | SEK | | STR | |
|---|-----------------|------------|----------|------|------|------|------|------|------|------|------|
| | | | | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 |
| <i>Acantholimon androsaceum</i> | Plumbaginaceae | Ch | • | • | • | • | • | • | • | • | • |
| <i>Acer sempervirens</i> | Aceraceae | P | | • | • | | | | | | |
| <i>Aethionema saxatile</i> subsp. <i>creticum</i> | Cruciferae | Ch | | • | • | • | | | | | |
| <i>Allium rubrovittatum</i> | Liliaceae | G | | • | • | | | | | | |
| <i>Alyssum fragillum</i> | Cruciferae | Ch | • | • | | • | • | • | • | • | • |
| <i>Alyssum sphacioticum</i> | Cruciferae | Ch | • | | | | | • | • | • | • |
| <i>Anthemis rigida</i> | Compositae | T | | • | | | | | | | |
| <i>Arabis alpina</i> subsp. <i>alpina</i> | Cruciferae | H | | • | • | • | • | • | • | | |
| <i>Arabis cretica</i> | Cruciferae | H | • | • | • | | | | | | |
| <i>Arenaria cretica</i> | Caryophyllaceae | Ch | | | | | | | | • | • |
| <i>Asperula idaea</i> | Rubiaceae | Ch | • | • | • | • | • | • | • | • | • |
| <i>Astragalus angustifolius</i> subsp. <i>angustifolius</i> | Leguminosae | Ch | | • | • | • | • | • | • | | |
| <i>Aubrieta deltoidea</i> | Cruciferae | Ch | | • | • | • | • | • | • | • | • |
| <i>Avenula cycladum</i> | Gramineae | H | | • | • | • | | | | | |
| <i>Berberis cretica</i> | Berberidaceae | P | | • | • | • | • | • | • | | |
| <i>Bromus squarrosum</i> | Gramineae | T | | • | • | | | | | | |
| <i>Bromus tectorum</i> | Gramineae | T | | • | • | | | | | | |
| <i>Bufonia stricta</i> subsp. <i>stricta</i> | Caryophyllaceae | Ch | | • | • | • | • | | | | |
| <i>Bupleurum trichopodum</i> | Umbelliferae | T | | • | • | | | | | | |
| <i>Carlina corymbosa</i> subsp. <i>curetum</i> | Compositae | H | • | • | • | | | | | | |
| <i>Centaurea idaea</i> | Compositae | H | • | • | • | • | • | | | | • |
| <i>Centaurea raphanina</i> subsp. <i>raphanina</i> | Compositae | H | • | • | • | | • | | | | |
| <i>Cerastium semidecandrum</i> | Caryophyllaceae | T | | • | • | | | | | | |
| <i>Cicer incisum</i> | Leguminosae | H | | | | | | • | • | • | |

| Species | Family | Life form* | Endemism | LOW | | CHO | | SEK | | STR | | | |
|--|-----------------|------------|----------|------|------|------|------|------|------|------|------|------|------|
| | | | | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 |
| <i>Crepis sibthorpiana</i> | Compositae | H | • | • | • | • | • | | | | | | |
| <i>Cuscuta atrans</i> | Convolvulaceae | T | • | • | • | | | | | | | | |
| <i>Dactylis glomerata</i> subsp. <i>rigida</i> | Gramineae | H | • | • | • | | | | | | | | |
| <i>Draba cretica</i> | Cruciferae | Ch | • | • | • | • | • | • | • | • | • | • | • |
| <i>Erysimum mutabile</i> | Cruciferae | H | • | • | | | | | | | | | |
| <i>Euphorbia acanthothamnos</i> | Euphorbiaceae | Ch | | • | • | | | | | | | | |
| <i>Euphorbia henniarifolia</i> | Euphorbiaceae | G | | | | • | • | • | • | • | • | • | • |
| <i>Festuca circummediterranea</i> | Gramineae | H | | • | • | | | | | | | | |
| <i>Festuca polita</i> | Gramineae | H | | | | | | | | • | • | | |
| <i>Galium</i> sp. | Rubiaceae | T | | • | • | | | | | | | | |
| <i>Galium verticillatum</i> | Rubiaceae | T | | • | • | • | | • | | | | | |
| <i>Helichrysum italicum</i> subsp. <i>microphyllum</i> | Compositae | Ch | | • | • | | | | | | | | |
| <i>Herniaria parnassica</i> subsp. <i>cretica</i> | Caryophyllaceae | Ch | • | • | | | | | | | | | |
| <i>Hypericum empetrifolium</i> | Guttiferae | Ch | | • | • | | | | | | | | |
| <i>Juniperus oxycedrus</i> subsp. <i>oxycedrus</i> | Cupressaceae | P | | • | • | | | | | | | | |
| <i>Lactuca viminea</i> subsp. <i>alpestris</i> | Compositae | H | • | • | • | • | • | • | • | • | • | | |
| <i>Lepidium hirtum</i> subsp. <i>oxyotum</i> | Cruciferae | H | | | | • | | | • | | | | |
| <i>Medicago lupulina</i> | Leguminosae | T/H | | • | • | | | | | | | | |
| <i>Melica rectiflora</i> | Gramineae | H | | • | • | • | • | • | | | | | |
| <i>Minuartia verna</i> subsp. <i>attica</i> | Caryophyllaceae | Ch | | | | • | • | • | • | • | • | • | • |
| <i>Muscari spreitzenhoferi</i> | Liliaceae | G | • | • | • | | | | | | | | |
| <i>Myosotis refracta</i> subsp. <i>refracta</i> | Boraginaceae | T | | | | • | • | | | | | | |
| Unknown annual in GR_LEO_CHO_W31 | | T | | | | • | | | | | | | |
| Unknown in GR_LEO_CHO_S13 | | T | | | | | • | | | | | | |
| <i>Paracaryum lithospermifolium</i> subsp. <i>cariense</i> | Boraginaceae | H | | • | • | • | • | • | • | • | • | • | • |
| <i>Paronychia macrosepala</i> | Caryophyllaceae | H | | • | • | • | • | | | | | | |
| <i>Peucedanum alpinum</i> | Umbelliferae | H | | | | | | • | • | • | • | • | • |

| Species | Family | Life form* | Endemism | LOW | | CHO | | SEK | | STR | | | |
|---|------------------|------------|----------|------|------|------|------|------|------|------|------|------|------|
| | | | | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 | 2001 | 2008 |
| <i>Pimpinella tragium</i> subsp. <i>depressa</i> | Umbelliferae | Ch | • | • | • | • | • | | | | | | |
| <i>Poa bulbosa</i> subsp. <i>bulbosa</i> | Gramineae | H | | • | • | | | | | | | | |
| <i>Prunus prostrata</i> | Rosaceae | Ch | | • | • | • | • | • | • | • | • | • | • |
| <i>Ranunculus</i> sp. | Ranunculaceae | H | | • | | | | | | | | | |
| <i>Rhamnus lycioides</i> subsp. <i>oleoides</i> | Rhamnaceae | P | | • | • | | | | | | | | |
| <i>Satureja spinosa</i> | Labiatae | Ch | | • | • | | | | | | | | |
| <i>Scutellaria hirta</i> | Labiatae | Ch | • | • | • | • | | | | | | | |
| <i>Sedum album</i> | Crassulaceae | Ch | | • | • | • | • | | | | | | |
| <i>Sedum amplexicaule</i> subsp. <i>tenuifolium</i> | Crassulaceae | Ch | | • | • | | | | | | | | |
| <i>Sedum tristriatum</i> | Crassulaceae | Ch | | • | • | • | • | | | • | • | | |
| <i>Sideritis syriaca</i> subsp. <i>syriaca</i> | Labiatae | Ch | • | • | | | | | | | | | |
| <i>Stipa bromoides</i> | Gramineae | H | | • | • | | | | | | | | |
| <i>Taraxacum bithynicum</i> | Compositae | H | | • | • | • | • | • | • | | | | |
| <i>Teucrium alpestre</i> subsp. <i>alpestre</i> | Labiatae | Ch | • | • | • | | | | | | | | |
| <i>Thesium bergeri</i> | Santalaceae | H/Ch | | • | • | | | | | | | | |
| <i>Thymus capitatus</i> | Labiatae | Ch | | • | • | | | | | | | | |
| <i>Velezia rigida</i> | Caryophyllaceae | T | | • | • | | | | | | | | |
| <i>Verbascum spinosum</i> | Scrophulariaceae | Ch | • | • | • | • | • | | | | | | |
| <i>Veronica thymifolia</i> | Scrophulariaceae | Ch | | • | • | • | • | • | • | | | | |
| <i>Sedum acre</i> | Crassulaceae | Ch | | | | • | | | | | | | |
| <i>Psoralea bituminosa</i> | Leguminosae | H | | | | • | | | | | | | |
| Unknown Geophyte in GR_LEO_CHO_W13 | | G | | | | | | • | | | | | |
| <i>Silene variegata</i> | Caryophyllaceae | H | • | | | | | | • | | | | |

Table S2 Species turnover (T_{sp}) for species recorded in the 1m² quadrats for each summit (LOW, CHO, SEK AND STR) and for the four summits combined (GR-LEO) ; A= Number of quadrats the species appeared in 2008, D= Number of quadrats the species disappeared in 2008, U= Number of quadrats the species unchanged

| Species | Life form | LOW | | | | CHO | | | | SEK | | | | STR | | | | GR-LEO | | | |
|---|-----------------|-----|---|----|----------|-----|---|---|----------|-----|---|---|----------|-----|---|---|----------|--------|---|----|----------|
| | | A | D | U | T_{sp} | A | D | U | T_{sp} | A | D | U | T_{sp} | A | D | U | T_{sp} | A | D | U | T_{sp} |
| <i>Acer sempervirens</i> | Phanerophyte | 0 | 0 | 1 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 1 | 0.00 |
| <i>Aethionema saxatile</i> subsp. <i>creticum</i> | Chamaephyte | 3 | 2 | 4 | 0.56 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 3 | 2 | 4 | 0.56 |
| <i>Alyssum fragillimum</i> | Chamaephyte | 0 | 1 | 0 | 1.00 | 0 | 2 | 3 | 0.40 | 0 | 0 | 1 | 0.00 | 0 | 0 | 0 | | 0 | 3 | 4 | 0.43 |
| <i>Alyssum sphacioticum</i> | Chamaephyte | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 7 | 0.00 | 0 | 0 | 1 | 0.00 | 0 | 0 | 8 | 0.00 |
| <i>Arabis alpina</i> subsp. <i>alpina</i> | Hemicryptophyte | 0 | 0 | 1 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 1 | 0.00 |
| <i>Arabis cretica</i> | Hemicryptophyte | 1 | 0 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 0 | 0 | 1.00 |
| <i>Arenaria cretica</i> | Chamaephyte | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 3 | 0.00 | 0 | 0 | 3 | 0.00 |
| <i>Asperula idaea</i> | Chamaephyte | 0 | 2 | 10 | 0.17 | 1 | 3 | 8 | 0.33 | 0 | 0 | 1 | 0.00 | 0 | 0 | 0 | | 1 | 5 | 19 | 0.24 |
| <i>Astragalus angustifolius</i> subsp. <i>angustifolius</i> | Chamaephyte | 0 | 0 | 4 | 0.00 | 0 | 0 | 7 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 11 | 0.00 |
| <i>Aubrieta deltoidea</i> | Chamaephyte | 0 | 0 | 1 | 0.00 | 1 | 1 | 2 | 0.50 | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 1 | 3 | 0.40 |
| <i>Avenula cycladum</i> | Hemicryptophyte | 0 | 1 | 9 | 0.10 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 9 | 0.10 |
| <i>Berberis cretica</i> | Phanerophyte | 1 | 0 | 1 | 0.50 | 0 | 0 | 3 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 0 | 4 | 0.20 |
| <i>Bromus tectorum</i> | Therophyte | 1 | 1 | 6 | 0.25 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 1 | 6 | 0.25 |
| <i>Bufonia stricta</i> subsp. <i>stricta</i> | Chamaephyte | 0 | 0 | 3 | 0.00 | 0 | 0 | 2 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 5 | 0.00 |
| <i>Bupleurum trichopodum</i> | Therophyte | 5 | 1 | 6 | 0.50 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 5 | 1 | 6 | 0.50 |
| <i>Centaurea idaea</i> | Hemicryptophyte | 2 | 0 | 1 | 0.67 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 2 | 0 | 1 | 0.67 |
| <i>Centaurea raphanina</i> subsp. <i>raphanina</i> | Hemicryptophyte | 0 | 2 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 2 | 0 | 1.00 |
| <i>Cerastium semidecandrum</i> | Therophyte | 2 | 0 | 1 | 0.67 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 2 | 0 | 1 | 0.67 |
| <i>Cicer incisum</i> | Hemicryptophyte | 0 | 0 | 0 | | 0 | 0 | 0 | | 2 | 1 | 4 | 0.43 | 0 | 0 | 0 | | 2 | 1 | 4 | 0.43 |
| <i>Crepis sibthorpiana</i> | Hemicryptophyte | 0 | 0 | 1 | 0.00 | 0 | 4 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 4 | 1 | 0.80 |
| <i>Cuscuta atrans</i> | Therophyte | 0 | 1 | 3 | 0.25 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 3 | 0.25 |
| <i>Dactylis glomerata</i> subsp. <i>rigida</i> | Hemicryptophyte | 0 | 1 | 3 | 0.25 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 3 | 0.25 |
| <i>Draba cretica</i> | Chamaephyte | 1 | 0 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 1 | 0.00 | 1 | 0 | 2 | 0.33 | 2 | 0 | 3 | 0.40 |

| Species | Life form | LOW | | | | CHO | | | | SEK | | | | STR | | | | GR-LEO | | | |
|--|-----------------|-----|---|---|-----------------|-----|---|----|-----------------|-----|---|---|-----------------|-----|---|---|-----------------|--------|---|----|-----------------|
| | | A | D | U | T _{sp} | A | D | U | T _{sp} | A | D | U | T _{sp} | A | D | U | T _{sp} | A | D | U | T _{sp} |
| <i>Erysimum mutabile</i> | Hemicryptophyte | 0 | 1 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 | 1.00 |
| <i>Euphorbia acanthothamnos</i> | Chamaephyte | 1 | 4 | 5 | 0.50 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 4 | 5 | 0.50 |
| <i>Euphorbia hennariifolia</i> | Geophyte | 0 | 0 | 0 | | 0 | 0 | 10 | 0.00 | 0 | 2 | 1 | 0.67 | 1 | 0 | 1 | 0.50 | 1 | 2 | 12 | 0.20 |
| <i>Festuca circummediterranea</i> | Hemicryptophyte | 0 | 0 | 9 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 9 | 0.00 |
| <i>Galium verticillatum</i> | Therophyte | 4 | 0 | 5 | 0.44 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 4 | 0 | 5 | 0.44 |
| <i>Herniaria parnassica</i> subsp. <i>cretica</i> | Chamaephyte | 0 | 1 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 | 1.00 |
| <i>Hypericum empetrifolium</i> | Chamaephyte | 0 | 0 | 6 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 6 | 0.00 |
| <i>Juniperus oxycedrus</i> subsp. <i>oxycedrus</i> | Phanerophyte | 0 | 0 | 2 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 2 | 0.00 |
| <i>Lactuca viminea</i> subsp. <i>alpestris</i> | Hemicryptophyte | 1 | 0 | 1 | 0.50 | 3 | 0 | 1 | 0.75 | 0 | 0 | 0 | | 0 | 0 | 0 | | 4 | 0 | 2 | 0.67 |
| <i>Medicago lupulina</i> | Therophyte | 0 | 0 | 1 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 1 | 0.00 |
| <i>Melica rectiflora</i> | Hemicryptophyte | 0 | 2 | 8 | 0.20 | 1 | 0 | 1 | 0.50 | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 2 | 9 | 0.25 |
| <i>Minuartia verna</i> subsp. <i>attica</i> | Chamaephyte | 0 | 0 | 0 | | 1 | 0 | 2 | 0.33 | 0 | 0 | 4 | 0.00 | 2 | 0 | 5 | 0.29 | 3 | 0 | 11 | 0.21 |
| <i>Muscari spreitzenhoferi</i> | Geophyte | 2 | 0 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 2 | 0 | 0 | 1.00 |
| <i>Unknown annual in GR-LEO_CHO_W31</i> | Therophyte | 0 | 0 | 0 | | 0 | 1 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 | 1.00 |
| <i>Unknown in GR-LEO_CHO_S13</i> | Therophyte | 0 | 0 | 0 | | 0 | 1 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 0 | 1.00 |
| <i>Paracaryum lithospermifolium</i> subsp. <i>cariense</i> | Hemicryptophyte | 0 | 1 | 1 | 0.50 | 4 | 1 | 3 | 0.63 | 0 | 1 | 1 | 0.50 | 0 | 0 | 0 | | 4 | 3 | 5 | 0.58 |
| <i>Paronychia macrosepala</i> | Hemicryptophyte | 2 | 2 | 5 | 0.44 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 2 | 2 | 5 | 0.44 |
| <i>Peucedanum alpinum</i> | Hemicryptophyte | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 1 | 0.00 | 0 | 0 | 1 | 0.00 |
| <i>Pimpinella tragium</i> subsp. <i>depressa</i> | Chamaephyte | 0 | 1 | 4 | 0.20 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 4 | 0.20 |
| <i>Poa bulbosa</i> subsp. <i>bulbosa</i> | Hemicryptophyte | 1 | 0 | 8 | 0.11 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 0 | 8 | 0.11 |
| <i>Prunus prostrata</i> | Chamaephyte | 0 | 1 | 7 | 0.13 | 0 | 0 | 5 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 12 | 0.08 |
| <i>Rhamnus lycioides</i> subsp. <i>oleoides</i> | Phanerophyte | 0 | 0 | 2 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 2 | 0.00 |
| <i>Satureja spinosa</i> | Chamaephyte | 0 | 1 | 3 | 0.25 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 1 | 3 | 0.25 |
| <i>Scutellaria hirta</i> | Chamaephyte | 0 | 0 | 1 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 1 | 0.00 |
| <i>Sedum album</i> | Chamaephyte | 1 | 0 | 5 | 0.17 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 0 | 5 | 0.17 |
| <i>Sedum amplexicaule</i> subsp. <i>tenuifolium</i> | Chamaephyte | 1 | 1 | 3 | 0.40 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 1 | 3 | 0.40 |
| <i>Sedum tristriatum</i> | Chamaephyte | 1 | 0 | 4 | 0.20 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 0 | 4 | 0.20 |

| Species | Life form | LOW | | | | CHO | | | | SEK | | | | STR | | | | GR-LEO | | | |
|---|-----------------|-----|---|---|-----------------|-----|---|---|-----------------|-----|---|---|-----------------|-----|---|---|-----------------|--------|---|---|-----------------|
| | | A | D | U | T _{sp} | A | D | U | T _{sp} | A | D | U | T _{sp} | A | D | U | T _{sp} | A | D | U | T _{sp} |
| <i>Stipa bromoides</i> | Hemicryptophyte | 0 | 0 | 3 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 3 | 0.00 |
| <i>Taraxacum bithynicum</i> | Hemicryptophyte | 0 | 2 | 7 | 0.22 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 2 | 7 | 0.22 |
| <i>Teucrium alpestre</i> subsp. <i>alpestre</i> | Chamaephyte | 0 | 0 | 1 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 1 | 0.00 |
| <i>Thesium bergeri</i> | Chamaephyte | 1 | 2 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 2 | 0 | 1.00 |
| <i>Thymus capitatus</i> | Chamaephyte | 0 | 2 | 8 | 0.20 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 2 | 8 | 0.20 |
| <i>Velezia rigida</i> | Therophyte | 2 | 0 | 1 | 0.67 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 2 | 0 | 1 | 0.67 |
| <i>Veronica thymifolia</i> | Chamaephyte | 0 | 0 | 2 | 0.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 2 | 0.00 |
| <i>Sedum acre</i> | Chamaephyte | 1 | 0 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 0 | 0 | 1.00 |
| <i>Unknown Geophyte in GR_LEO_CHO_W13</i> | Geophyte | 0 | 0 | 0 | | 1 | 0 | 0 | 1.00 | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 0 | 0 | 1.00 |

Table S3 The species richness in 2001 and 2008, the number of new and lost species and also the number of species found in both surveys; used for calculating the vegetation turnover (T_{veg}) between 2001 and 2008 in summit area sections and for different groups of species and life forms.

| Summit, sampling area (life form) | Number of species in 2001 | Number of species in 2008 | Number of new species (A) | Number of lost species (D) | Number of Unchanged species (B) | T_{veg} (A+D) (A+D+B) |
|--------------------------------------|---------------------------------|---------------------------------|------------------------------------|-------------------------------------|--|-------------------------------|
| LOW, 5m SAS | 57 | 54 | 2 | 5 | 52 | 0.12 |
| LOW, 10m SAS | 52 | 49 | 2 | 5 | 47 | 0.13 |
| LOW, 5+10m SAS | 59 | 55 | 2 | 6 | 53 | 0.13 |
| CHO, 5m SAS | 26 | 21 | 2 | 7 | 19 | 0.32 |
| CHO, 10m SAS | 26 | 28 | 6 | 4 | 22 | 0.31 |
| CHO, 5+10m SAS | 32 | 28 | 3 | 7 | 25 | 0.29 |
| SEK, 5m SAS | 12 | 14 | 2 | 0 | 12 | 0.14 |
| SEK, 10m SAS | 18 | 17 | 1 | 2 | 16 | 0.16 |
| SEK, 5+10m SAS | 18 | 18 | 2 | 2 | 16 | 0.20 |
| STR, 5m SAS | 11 | 13 | 2 | 0 | 11 | 0.15 |
| STR, 10m SAS | 13 | 15 | 2 | 0 | 13 | 0.13 |
| STR, 5+10m SAS | 14 | 15 | 1 | 0 | 14 | 0.07 |
| LOW, 1m ² quadrats | 46 | 46 | 4 | 4 | 42 | 0.16 |
| CHO, 1m ² quadrats | 15 | 13 | 1 | 3 | 12 | 0.25 |
| SEK, 1m ² quadrats | 8 | 8 | 0 | 0 | 8 | 0.00 |
| STR, 1m ² quadrats | 6 | 6 | 0 | 0 | 6 | 0.00 |
| LOW, 5m SAS (endemics) | 18 | 15 | 0 | 3 | 15 | 0.17 |
| LOW, 10m SAS (endemics) | 20 | 15 | 0 | 5 | 15 | 0.25 |
| LOW, 5+10m SAS (endemics) | 20 | 16 | 0 | 4 | 16 | 0.20 |
| CHO, 5m SAS (endemics) | 8 | 8 | 1 | 1 | 7 | 0.22 |
| CHO, 10m SAS (endemics) | 9 | 9 | 1 | 1 | 8 | 0.20 |
| CHO, 5+10m SAS (endemics) | 10 | 9 | 1 | 2 | 8 | 0.27 |
| SEK, 5m SAS (endemics) | 5 | 5 | 0 | 0 | 5 | 0.00 |
| SEK, 10m SAS (endemics) | 6 | 7 | 1 | 0 | 6 | 0.14 |
| SEK, 5+10m SAS (endemics) | 6 | 7 | 1 | 0 | 6 | 0.14 |
| STR, 5m SAS (endemics) | 4 | 5 | 1 | 0 | 4 | 0.20 |

| Summit, sampling area (life form) | Number of species in 2001 | Number of species in 2008 | Number of new species (A) | Number of lost species (D) | Number of Unchanged species (B) | T_{veg} $\frac{(A+D)}{(A+D+B)}$ |
|--------------------------------------|---------------------------------|---------------------------------|------------------------------------|-------------------------------------|--|--------------------------------------|
| STR, 10m SAS (endemics) | 4 | 6 | 2 | 0 | 4 | 0.33 |
| STR, 5+10m SAS (endemics) | 5 | 6 | 1 | 0 | 5 | 0.17 |
| LOW, 5m SAS (chamaephytes) | 23 | 22 | 1 | 2 | 21 | 0.13 |
| LOW, 10m SAS (chamaephytes) | 25 | 22 | 0 | 3 | 22 | 0.12 |
| LOW, 5+10m SAS (chamaephytes) | 25 | 23 | 1 | 3 | 22 | 0.15 |
| CHO, 5m SAS (chamaephytes) | 14 | 10 | 0 | 4 | 10 | 0.29 |
| CHO, 10m SAS (chamaephytes) | 13 | 13 | 2 | 2 | 11 | 0.27 |
| CHO, 5+10m SAS (chamaephytes) | 16 | 13 | 0 | 3 | 13 | 0.19 |
| SEK, 5m SAS (chamaephytes) | 8 | 9 | 1 | 0 | 8 | 0.11 |
| SEK, 10m SAS (chamaephytes) | 9 | 9 | 0 | 0 | 9 | 0.00 |
| SEK, 5+10m SAS (chamaephytes) | 9 | 9 | 0 | 0 | 9 | 0.00 |
| STR, 5m SAS (chamaephytes) | 7 | 9 | 2 | 0 | 7 | 0.22 |
| STR, 10m SAS (chamaephytes) | 9 | 10 | 1 | 0 | 9 | 0.10 |
| STR, 5+10m SAS (chamaephytes) | 10 | 10 | 0 | 0 | 10 | 0.00 |
| LOW, 5m SAS (geophytes) | 2 | 2 | 0 | 0 | 2 | 0.00 |
| LOW, 10m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| LOW, 5+10m SAS (geophytes) | 2 | 2 | 0 | 0 | 2 | 0.00 |
| CHO, 5m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| CHO, 10m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| CHO, 5+10m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |

| Summit, sampling area (life form) | Number of species in 2001 | Number of species in 2008 | Number of new species (A) | Number of lost species (D) | Number of Unchanged species (B) | T_{veg} $\frac{(A+D)}{(A+D+B)}$ |
|--------------------------------------|---------------------------------|---------------------------------|------------------------------------|-------------------------------------|--|--------------------------------------|
| SEK, 5m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| SEK, 10m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| SEK, 5+10m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| STR, 5m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| STR, 10m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| STR, 5+10m SAS (geophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| LOW, 5m SAS (hemicryptophytes) | 18 | 17 | 1 | 2 | 16 | 0.16 |
| LOW, 10m SAS (hemicryptophytes) | 16 | 14 | 0 | 2 | 14 | 0.13 |
| LOW, 5+10m SAS (hemicryptophytes) | 18 | 17 | 1 | 2 | 16 | 0.16 |
| CHO, 5m SAS (hemicryptophytes) | 6 | 6 | 1 | 1 | 5 | 0.29 |
| CHO, 10m SAS (hemicryptophytes) | 10 | 10 | 2 | 2 | 8 | 0.33 |
| CHO, 5+10m SAS (hemicryptophytes) | 10 | 10 | 2 | 2 | 8 | 0.33 |
| SEK, 5m SAS (hemicryptophytes) | 3 | 4 | 1 | 0 | 3 | 0.25 |
| SEK, 10m SAS (hemicryptophytes) | 7 | 6 | 1 | 2 | 5 | 0.38 |
| SEK, 5+10m SAS (hemicryptophytes) | 7 | 7 | 2 | 2 | 5 | 0.44 |
| STR, 5m SAS (hemicryptophytes) | 3 | 3 | 0 | 0 | 3 | 0.00 |
| STR, 10m SAS (hemicryptophytes) | 3 | 4 | 1 | 0 | 3 | 0.25 |
| STR, 5+10m SAS (hemicryptophytes) | 3 | 4 | 1 | 0 | 3 | 0.25 |
| LOW, 5m SAS (phanerophytes) | 4 | 4 | 0 | 0 | 4 | 0.00 |
| LOW, 10m SAS (phanerophytes) | 3 | 4 | 1 | 0 | 3 | 0.25 |

| Summit, sampling area (life form) | Number of species in 2001 | Number of species in 2008 | Number of new species (A) | Number of lost species (D) | Number of Unchanged species (B) | T_{veg} $\frac{(A+D)}{(A+D+B)}$ |
|--------------------------------------|---------------------------------|---------------------------------|------------------------------------|-------------------------------------|--|--------------------------------------|
| LOW, 5+10m SAS (phanerophytes) | 4 | 4 | 0 | 0 | 4 | 0.00 |
| CHO, 5m SAS (phanerophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| CHO, 10m SAS (phanerophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| CHO, 5+10m SAS (phanerophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| SEK, 5m SAS (phanerophytes) | 0 | 0 | 0 | 0 | 0 | - |
| SEK, 10m SAS (phanerophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| SEK, 5+10m SAS (phanerophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| STR, 5m SAS (phanerophytes) | 0 | 0 | 0 | 0 | 0 | - |
| STR, 10m SAS (phanerophytes) | 0 | 0 | 0 | 0 | 0 | - |
| STR, 5+10m SAS (phanerophytes) | 0 | 0 | 0 | 0 | 0 | - |
| LOW, 5m SAS (therophytes) | 10 | 9 | 0 | 1 | 9 | 0.10 |
| LOW, 10m SAS (therophytes) | 7 | 8 | 1 | 0 | 7 | 0.13 |
| LOW, 5+10m SAS (therophytes) | 10 | 9 | 0 | 1 | 9 | 0.10 |
| CHO, 5m SAS (therophytes) | 4 | 2 | 0 | 2 | 2 | 0.50 |
| CHO, 10m SAS (therophytes) | 1 | 1 | 0 | 0 | 1 | 0.00 |
| CHO, 5+10m SAS (therophytes) | 4 | 2 | 0 | 2 | 2 | 0.50 |
| SEK, 5m SAS (therophytes) | 0 | 0 | 0 | 0 | 0 | - |
| SEK, 10m SAS (therophytes) | 0 | 0 | 0 | 0 | 0 | - |
| SEK, 5+10m SAS (therophytes) | 0 | 0 | 0 | 0 | 0 | - |
| STR, 5m SAS (therophytes) | 0 | 0 | 0 | 0 | 0 | - |

| Summit, sampling area (life form) | Number of species in 2001 | Number of species in 2008 | Number of new species (A) | Number of lost species (D) | Number of Unchanged species (B) | T_{veg} $\frac{(A+D)}{(A+D+B)}$ |
|--------------------------------------|---------------------------------|---------------------------------|------------------------------------|-------------------------------------|--|--------------------------------------|
| STR, 10m SAS (therophytes) | 0 | 0 | 0 | 0 | 0 | - |
| STR, 5+10m SAS (therophytes) | 0 | 0 | 0 | 0 | 0 | - |

Figure S1. Scheme of the Multi-Summit sampling design (from Pauli, H.; Gottfried, M.; Lamprecht, A.; Niessner, S.; Rumpf, S.; Winkler, M.; Steinbauer, K. and Grabherr, G., coordinating authors and editors (2015). The GLORIA field manual – standard Multi-Summit approach, supplementary methods and extra approaches. 5th edition. GLORIA-Coordination, Austrian Academy of Sciences & University of Natural Resources and Life Sciences, Vienna).

Scheme of the Multi-Summit sampling design. The standard sampling design comprises 16 1-m² quadrats and eight summit area sections (SAs). Note that only the corner points in the cardinal directions (N, E, S, W) lie at the 5-m respectively 10-m contour line below the highest summit point, whereas the corner points at the intermediate directions (NE, SE, SW, NW) usually lie above the 5-m respectively the 10-m level. The latter points are determined only as the crossing points of summit area boundary lines (i.e. straight lines connecting the corner points in the cardinal directions) and the intersection lines.

