**Supplementary Appendices**

**Appendix 2.** List of perennial species under different grazing treatments (BG, before one-week intense grazing; AG, after one week intense grazing) for each community.

|  |  |  |  |
| --- | --- | --- | --- |
| Perennial species | *A. henoniana* | *H. schmittianum* | *R. raetam* |
| BG | AG | BG | AG | BG | AG |
| *Anabasis oropediorum* | + | + | - | - | - | - |
| *Anarrhinum brevifolium*  | + | + | - | - | - | - |
| *Anthyllis henoniana* | + | + | - | - | - | - |
| *Argyrolobium uniflorum* | - | - | + | + | + | + |
| *Artemisia herba-alba* | + | + | - | - | - | - |
| *Atractylis serratuloides* | + | + | + | + | - | - |
| *Cleome amblyocarpa*  | - | - | - | - | + | + |
| *Cynodon dactylon*  | - | - | - | - | + | + |
| *Deverra tortuosa*  | + | + | - | - | + | + |
| *Fagonia glutinosa*  | + | + | + | + | + | + |
| *Gymnocarpos decander* | + | + | - | - | + | + |
| *Haloxylon schmittianum* | + | + | + | + | + | + |
| *Haloxylon scoparium* | + | + | + | + | - | - |
| *Haplophyllum tuberculatum* | - | - | - | - | + | + |
| *Helianthemum kahiricum* | + | + | + | + | + | + |
| *Helianthemum lipii* | + | + | - | - | + | + |
| *Helianthemum sessiliflorum* | - | - | + | + | + | + |
| *Herniaria fontanesii*  | + | + | - | - | - | - |
| *Kickxia aegyptiaca* | - | - | + | + | + | + |
| *Limonium pruinosum*  | + | + | - | - | - | - |
| *Lycium shawii* | + | + | - | - | - | - |
| *Lygeum spartum* | + | + | - | - | - | - |
| *Nitraria retusa* | - | - | - | - | + | + |
| *Periploca angustifolia*  | + | + | - | - | - | - |
| *Polygonum equisetiforme* | - | - | - | - | + | + |
| *Retama raetam* | - | - | + | + | + | + |
| *Rhanterium suaveolens* | - | - | + | + | + | + |
| *Salsola vermiculata* | + | + | + | + | - | - |
| *Salvia aegyptiaca* | - | - | - | - | + | + |
| *Sipa lagascae* | + | + | + | + | - | - |
| *Stipagrostis ciliata*  | + | + | - | - | - | - |