**Gradients of salinity and plant community richness and diversity in Mediterranean coastal environments**

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**Supplementary Materials:** **table A.1.** Frequency of 89 vascular plants in 3 belts (B1-B3) in 3 rocky sites (R1-R3) and 3 dune sites (D1-D3) in NW Sardinia. At each combination Site x Belt 5 transects were carried out, therefore frequency of each species is expressed as follows: 0.2 = presence in 1 transect; 0.4 = presence in 2 transects; 0.6 = presence in 3 transects; 0.8 = presence in 4 transects; 1 = presence in 5 transects. Plant names follow the last edition of the Italian Vascular Flora Check-List (Bartolucci et al. 2018). Biological (P = Phanerophytes, NP = Nano-phanerophytes, Ch = Chamaephytes, H = Hemicryptophytes, G = Geophytes and T = Therophytes) and chorologic forms were derived from Pignatti (Pignatti 1982).

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Fo. Biol.** | **Fo. Chor.** | **Name** | **R1** | | | **R2** | | | **R3** | | | **D1** | | | **D2** | | | **D3** | | |
| **B1** | **B2** | **B3** | **B1** | **B2** | **B3** | **B1** | **B2** | **B3** | **B1** | **B2** | **B3** | **B1** | **B2** | **B3** | **B1** | **B2** | **B3** |
| Ch | Medit.-Atl.(Euri-) | *Achillea maritima* (L.) Ehrend. & Y.P.Guo subsp. *maritima* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 1 | 0.4 |
| P | avv. | *Agave americana* L. subsp. *americana* |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |
| H | Endem. Sar(-Cor) | *Anchusa crispa* Viv. subsp. *maritima* (Vals.) Selvi & Bigazzi |  |  |  |  |  |  |  |  |  | 0.2 |  | 0.2 |  |  |  |  |  |  |
| H | W-Medit | *Anthemis maritima* L. subsp. *maritima* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |
| G | Steno-Medit. | *Arisarum vulgare* O.Targ.Tozz. subsp. *vulgare* |  |  |  | 1 | 1 | 0.8 |  |  |  |  |  |  |  |  |  |  |  |  |
| Ch | W-Europ | *Armeria pungens* (Link) Hoffmanns. & Link |  |  |  |  |  |  |  |  |  | 1 | 1 | 1 |  |  |  |  |  |  |
| G | Steno-Medit.-Occid. | *Arum pictum* L.f. subsp. *pictum* |  |  |  |  |  |  | 0.2 | 0.4 |  |  |  |  |  |  |  |  |  |  |
| G | Steno-Medit. | *Asparagus acutifolius* L. |  |  | 0.4 |  |  |  |  |  |  | 0.4 | 0.8 |  |  |  | 0.2 |  |  |  |
| G | Steno-Medit. | *Asphodelus ramosus* L. subsp. *ramosus* | 0.4 |  |  | 0.2 | 0.2 |  |  | 0.2 | 0.2 |  |  |  |  |  |  |  |  |  |
| NP | Endem. Sar (-Cor) | *Astragalus terraccianoi* Vals. |  |  |  |  |  |  |  | 0.6 | 1 |  |  |  |  |  |  |  |  |  |
| H | Endem. Ital. | *Astragalus thermensis* Vals. |  |  |  |  |  |  |  |  |  | 0.6 | 0.2 | 0.6 | 0.2 | 0.4 | 0.2 |  |  |  |
| T | Medit.-Turan. | *Brachypodium distachyon* (L.) P.Beauv. |  |  |  |  |  |  | 0.2 | 0.2 | 0.6 |  |  |  |  |  |  |  |  |  |
| T | Medit.-Atl.(Steno-) | *Cakile maritima* Scop. *maritima* |  |  |  |  |  |  |  |  |  |  | 0.4 |  |  |  |  |  |  |  |
| G | Euri-Medit. | *Calamagrostis arenaria* (L.) Roth subsp. *arundinacea* (Husn.) Banfi, Galasso & Bartolucci |  |  |  |  |  |  |  |  |  | 0.2 | 0.6 |  |  |  | 0.2 | 0.8 | 0.2 | 0.6 |
| Ch | Medit. | *Camphorosma monspeliaca* L. subsp. *monspeliaca* | 1 | 0.6 |  | 0.8 | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| H | Steno-Medit. | *Carlina corymbosa* L. | 0.2 | 0.8 | 0.6 | 0.8 | 1 | 0.8 |  |  |  |  |  |  |  |  |  |  |  |  |
| Ch | avv | *Carpobrotus acinaciformis* (L.) L. Bolus |  |  |  |  |  |  |  |  |  |  | 0.4 | 0.2 | 0.4 | 1 | 1 |  | 0.6 | 1 |
| T | Medit.-Atl.(Euri-) | *Catapodium balearicum* (Willk.) H. Scholz |  |  |  |  |  |  |  | 0.2 | 1 |  |  |  |  |  |  |  |  |  |
| Ch | Endemic | *Centaurea horrida* Badarò | 0.6 | 0.8 |  |  |  |  |  | 0.4 | 0.6 |  |  |  |  |  |  |  |  |  |
| T | Paleotemp. | *Centaurium erythraea* Rafn |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |
| NP | Steno-Medit.-Occid. | *Chamaerops humilis* L. |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |
| NP | Steno-Medit. | *Cistus creticus* L. subsp. *eriocephalus* (Viv.) Greuter & Burdet |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| NP | Steno-Medit. | *Cistus* *monspeliensis* L. |  |  | 0.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |
| NP | Steno-Medit. | *Cistus salviifolius* L. |  | 1 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |
| P | Euri-Medit. | *Clematis flammula* L. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.6 |  |  |  |
| G | Cosmop. | *Convolvulus soldanella* L. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.6 | 1 |  |
| Ch | Steno-Medit. | *Crithmum maritimum* L. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.4 |
| Ch | Steno-Medit. | *Crucianella maritima* L. |  |  |  |  |  |  |  |  |  |  | 0.4 |  |  |  |  | 0.2 | 1 | 1 |
| H | Steno-Medit. | *Dactylis glomerata* L. *hispanica* (Roth) Nyman |  |  |  |  |  |  |  |  | 0.8 |  |  |  |  |  |  |  |  |  |
| H | Paleotemp. | *Daucus carota* L. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |
| H | Euri-Medit. | *Echinophora spinosa* L. |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |
| H | Steno-Medit. | *Echium vulgare* L. |  |  |  |  |  |  |  |  |  |  |  |  | 0.4 | 0.6 | 0.4 |  |  |  |
| NP | Steno-Medit.-Nordoccid. | *Ephedra distachya* L. |  |  |  |  |  |  |  |  |  | 0.4 | 1 | 1 |  |  | 0.6 |  |  |  |
| G | Medit.-Atl.(Euri-) | *Eryngium maritimum* L. |  |  |  |  |  |  |  |  |  | 0.2 |  |  | 1 | 0.2 |  | 1 | 0.6 | 0.4 |
| NP | Steno-Medit. | *Euphorbia characias* L. |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |
| T | Subcosmop. | *Euphorbia peplus* L. |  |  |  | 1 | 1 | 1 |  |  |  |  | 0.4 | 0.2 |  |  |  |  |  |  |
| Ch | W-Medit. | *Euphorbia pithyusa* L. subsp. *pithyusa* |  |  |  | 0.8 | 0.6 | 0.6 | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  |
| H | Steno-Medit. | *Euphorbia terracina* L. |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 0.8 | 0.4 |  |  |  |
| T | Steno-Medit. | *Fumaria bicolor* Sommier |  |  |  | 0.4 |  | 0.2 |  |  |  |  |  | 0.6 |  |  |  |  |  |  |
| NP | Endemic | *Genista corsica* (Loisel.) DC. |  | 0.2 | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| T | Eurasiat. | *Geranium robertianum* L. |  |  |  |  |  |  |  |  |  | 0.2 | 0.2 |  |  |  |  |  |  |  |
| Ch | Euri-Medit. | *Helichrysum italicum* (Roth) G.Don subsp. *tyrrhenicum* (Bacch., Brullo & Giusso) Herrando, J.M.Blanco, L.Sáez & Galbany | 0.8 | 0.4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.2 |  |  |  | 0.2 | 0.2 |  | 0.2 | 1 |
| T | Paleotemp. | *Hypecoum procumbens* L. subsp. *procumbens* |  |  |  |  |  |  |  | 0.2 |  |  |  | 0.2 |  |  |  |  |  |  |
| T | Euri-Medit. | *Hypochaeris glabra* L. |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |
| P | Euri-Medit. | *Juniperus macrocarpa* Sm. |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 | 1 |  |  | 0.6 |
| P | W-Medit. | *Juniperus turbinata* Guss. | 0.2 |  | 0.6 | 0.4 | 0.6 | 0.2 |  | 0.6 | 1 |  |  |  |  |  |  |  |  | 0.4 |
| T | Euri-Medit. | *Lagurus ovatus* L. subsp. *ovatus* |  |  |  |  |  |  |  |  |  |  | 0.4 | 1 |  | 0.2 | 0.8 |  |  |  |
| NP | Steno-Medit. | *Lavandula stoechas* L. subsp. *stoechas* |  |  | 0.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ch | Endemic | *Limonium acutifolium* (Rchb.) Salmon subsp. *acutifolium* |  |  |  |  | 0.6 | 0.4 | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  |
| Ch | Endemic | *Limonium acutifolium* (Rchb.) Salmon subsp. *nymphaeum* (Erben) Arrigoni | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H | Steno-Medit. | *Lobularia maritima* (L.) Desv. | 0.6 | 0.4 |  | 0.4 | 0.2 | 0.6 |  |  |  |  |  | 1 |  | 0.2 | 0.8 |  |  |  |
| Ch | Steno-Medit. | *Lotus cytisoides* L. | 1 | 0.4 |  | 1 | 1 | 1 |  |  |  | 1 | 0.6 | 0.6 | 1 | 0.8 | 0.8 | 0.6 | 1 | 1 |
| H | Medit.-Atl.(Steno-) | *Matthiola sinuata* (L.) W.T.Aiton |  |  |  |  |  |  |  |  |  |  | 0.6 |  | 0.6 | 0.2 |  | 0.2 | 0.6 |  |
| T | Steno-Medit. | *Matthiola tricuspidata* (L.) R. Br. |  |  |  |  |  |  |  |  |  | 0.4 |  |  |  |  |  |  |  |  |
| Ch | Euri-Medit. | *Medicago marina* L. |  |  |  |  |  |  |  |  |  |  |  |  | 0.8 | 0.4 |  |  | 0.6 |  |
| G | Steno-Medit. | *Moraea sisyrinchium* (L.) Ker Gawl. |  |  |  |  |  |  | 0.2 |  | 0.6 |  |  |  |  |  |  |  |  |  |
| P | Steno-Medit. | *Olea europae*a L. |  | 0.4 | 0.8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ch | Euri-Medit.-Occid. | *Ononis natrix* L. subsp. *natrix* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |
| G | Steno-Medit. | *Pancratium maritimum* L. |  |  |  |  |  |  |  |  |  | 0.8 | 0.4 |  | 1 | 0.4 |  | 1 | 1 | 0.4 |
| T | Medit.-Turan. | *Papaver dubium* L. |  |  |  |  |  |  |  |  |  |  |  | 0.6 |  |  |  |  |  |  |
| P | Steno-Medit. | *Pinus halepensis* Mill. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |
| P | Steno-Medit. | *Pistacia lentiscus* L. | 0.8 | 0.6 | 1 |  |  |  |  | 0.4 | 0.6 |  |  |  |  |  |  |  |  | 0.2 |
| H | Subcosmop. | *Polygonum maritimum* L. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |  |
| H | Steno-Medit. | *Reichardia picroides* (L.) Roth |  | 0.4 |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| T | Steno-Medit.-Occid. | *Rostraria pubescens* (Lam.) Trin. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.6 |  |  |  |
| P | Steno-Medit. | *Rubia peregrina* L. |  |  |  | 0.2 |  |  |  |  |  | 0.4 |  |  |  | 0.2 |  |  |  |  |
| T | Paleotemp. | *Salsola kali* L. |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |
| NP | Steno-Medit. | *Salvia rosmarinus* Spenn. | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H | Steno-Medit. | *Salvia verbenaca* L. |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G | Euri-Medit. | *Scirpoides holoschoenus* (L.) Soják |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.6 |  |  |  |  |
| Ch | Steno-Medit. | *Sedum dasyphyllum* L. |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |
| T | Steno-Medit. | *Senecio leucanthemifolius* Poir. subsp. *leucanthemifolius* | 1 | 0.2 |  |  | 1 | 0.4 |  |  | 0.2 | 0.8 | 0.2 | 0.6 | 0.2 |  |  |  |  |  |
| T | Steno-Medit. | *Silene niceensis* All. |  |  |  |  |  | 0.2 |  |  |  |  |  |  | 0.2 | 0.6 | 0.2 |  |  |  |
| T | Endemic | *Silene nummica* Vals. |  |  |  |  |  |  |  |  |  | 0.4 | 0.2 | 1 |  |  |  |  |  |  |
| H | Endemic | *Silene succulenta* Forssk. subsp. *corsica* (DC.) Nyman |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |
| H | Steno-Medit. | *Sixalix atropurpurea* (L.) Greuter & Burdet |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |
| G | Steno-Medit. | *Sonchus bulbosus* (L.) N. Kilian & Greuter subsp. *bulbosus* | 0.4 | 1 | 1 |  |  |  |  |  |  |  | 0.6 |  |  |  | 0.8 | 0.2 | 0.8 |  |
| G | Subtrop. | *Sporobolus virginicus* (L.) Kunth |  |  |  |  |  | 0.2 |  |  |  | 0.8 | 0.8 |  | 0.2 |  |  | 0.2 | 1 | 1 |
| Ch | Steno-Medit. | *Stachys major* (L.) Bartolucci & Peruzzi |  |  | 0.4 |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |
| T | Cosmop. | *Stellaria media* (L.) Vill. |  |  |  |  |  |  |  |  |  |  |  | 0.4 |  |  |  |  |  |  |
| H | Cosmop. | *Taraxacum* sect. *Taraxacum* |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |
| G | Euri-Medit. | *Thinopyrum junceum* (L.) Á.Löve |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 0.6 |  | 0.4 | 1 | 0.2 |
| Ch | S-Medit. | *Thymelaea hirsuta* (L.) Endl. |  |  | 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ch | Steno-Medit. | *Thymelaea tartonraira* (L.) All. subsp. *tartonraira* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| T | Paleotemp. | *Trifolium arvense* L. |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |  |
| G | Steno-Medit. | *Umbilicus horizontalis* (Guss.) DC. |  |  |  |  |  |  |  |  |  |  | 0.2 | 0.2 |  |  | 0.2 |  |  |  |
| T | Steno-Medit. | *Valantia muralis* L. |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |  |
| T | Steno-Medit. | *Valerianella macrocarpa* Loisel. |  |  |  |  |  |  |  |  |  |  |  | 0.4 |  |  |  |  |  |  |
| T | - | Not determined |  |  |  |  |  |  |  |  |  | 0.2 |  |  |  |  |  |  |  |  |
| **Total number of species per site** | | | **22** | | | **18** | | | **23** | | | **33** | | | **30** | | | **27** | | |

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