
**THREATENED
VASCULAR PLANTS
OF THE
MALTESE ISLANDS**

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1. LIST OF POSSIBLY EXTINCT VASCULAR PLANTS IN THE MALTESE ISLANDS

Only native, possibly native and archaeophytic species are included below; alien species were excluded. Species listed in bold are taxa not included in Lanfranco (1989), which however fit into RDB criteria.

Family: ISOËTACEAE

1. *Isoëtes histrix* Bory var. *subinermis* Durieu - X?

Family: ASPLENIACEAE

2. *Asplenium marinum* L. - X?
3. *Asplenium sagittatum* (DC.) A. J. Bange - X?
4. *Asplenium trichomanes* L. - X?

Family: PINACEAE

5. *Pinus halepensis* Miller - X?

Family: EPHEDRACEAE

6. *Ephedra fragilis* Desfontaines - X?

Family: RANUNCULACEAE

7. *Adonis aestivalis* L. ssp. *squarrosa* (Steven) Nyman - X?
8. *Anemone hortensis* L. - X?
9. *Ranunculus bulbosum* L. ssp. *adscendens* (Brotero) Neves forma *macranthus* (Sommier et Caruana Gatto) Lanfranco - X?
10. *Ranunculus chius* DC. - X?
11. *Ranunculus ophioglossifolius* Villars - X?
12. *Ranunculus sardous* Crantz - X?
13. *Ranunculus trilobus* Desfontaines - X?

Family: CARYOPHYLLACEAE

14. *Agrostemma githago* L. - X?
15. *Cerastium brachypetalum* Persoon - X?
16. *Cerastium ligusticum* Viviani - X?
17. *Minuartia mediterranea* (Link) K. Maly - X?
18. *Paronychia argentea* Lamarck - X?
19. *Paronychia macrosepala* Boissier - X?
20. *Silene behen* L. - X?
21. *Silene bellidifolia* Jussieu ex Jacquin - X?
22. *Silene pendula* L. - X?
23. *Spergularia purpurea* (Persoon) G. Don fil. - X?

Family: CHENOPODIACEAE

24. *Atriplex rosea* L. - X?
25. *Halocnemum strobiliaceum* (Pallas) M. Bieberstein - X?

Family: POLYGONACEAE

26. *Persicaria maculosa* S.F. Gray - X?
27. *Polygonum equisetiforme* Smith - X?

Family: PLUMBAGINACEAE

28. *Limonium* sp.nov. - X?

Family: CLUSIACEAE

29. *Hypericum australe* Tenore - X?

Family: VIOLACEAE

30. *Viola odorata* L. - X?
31. *Viola parvula* Tineo - X?

Family: BRASSICACEAE

32. *Erophila verna* (L.) Chevallier - X?
33. *Malcolmia maritima* (L.) R. Brown - X?
34. *Matthiola lunata* DC. - X?
35. *Thlaspi perfoliatum* L. - X?

Family: MALVACEAE

36. *Hibiscus trionum* L. - X?
37. *Malope malacoides* L. - X?
38. *Malope stipulacea* Cavanilles - X?

Family: EUPHORBIACEAE

39. *Euphorbia biumbellata* Poir. - X?
40. *Euphorbia hirsuta* L. - X?

Family: SAXIFRAGACEAE

41. *Saxifraga tridactylites* L. - X?

Family: ROSACEAE

42. *Mespilus germanica* L. - X?
43. *Prunus spinosa* L. - X?

Family: CAESALPINIACEAE

44. *Cercis siliquastrum* L. - X

Family: FABACEAE

45. *Hippocrepis emerus* (L.) Lassen - X?
46. *Lathyrus gorgoni* Parl. - X?
47. *Lathyrus inconspicuus* L. - X?
48. *Lathyrus setifolius* L. - X?
49. *Ononis pendula* Desfontaines - X?
50. *Trifolium lappaceum* L. - X?
51. *Trifolium subterraneum* L. - X?
52. *Trigonella maritima* Poir. - X?
53. *Vicia peregrina* L. - X?

Family: LINACEAE

54. *Linum decumbens* Desfontaines - X?

Family: GERANIACEAE

55. *Erodium acaule* (L.) Becherer & Thellung - X?
56. *Erodium alnifolium* Gussone - X?

Family: APIACEAE

- 57. *Bifora testiculata* (L.) DC. - X?
- 58. *Capnophyllum peregrinum* (L.) Lange - X?
- 59. *Torilis arvensis* (Hudson) Link ssp. *purpurea* (Tenore) Hayek - X?

Family: RHAMNACEAE

- 60. *Paliurus spina-christi* Miller - X?

Family: RUBIACEAE

- 61. *Valantia hispida* L. - X?

Family: OLEACEAE

- 62. *Fraxinus* sp. - X

Family: VALERIANACEAE

- 63. *Valerianella microcarpa* Loiseleur - X?

Family: BORAGINACEAE

- 64. *Heliotropium supinum* L. - X?
- 65. *Symphytum officinale* L. - X?

Family: LAMIACEAE (= LABIATAE)

- 66. *Mentha aquatica* L. - X?

Family: SCROPHULARIACEAE

- 67. *Chaenorhinum minus* (L.) Lange - X?

Family: OROBANCHACEAE

- 68. *Orobanche clausonis* Pomel - X?

Family: PLANTAGINACEAE

- 69. *Plantago albicans* L. - X?

Family: CAMPANULACEAE

- 70. *Legousia hybrida* (L.) Delarbre var. *foliosa* (Sommier & Caruana Gatto) Lanfr. - X?

Family: ASTERACEAE (= COMPOSITAE)

- 71. *Anthemis praecox* Link - X?
- 72. *Centaurea solistitialis* L. - X?
- 73. *Echinops sicalus* Strobl - X?
- 74. *Hypochoeris cretensis* (L.) Chaubard & Bory - X?
- 75. *Launaea resedifolia* (L.) Kuntze - X?
- 76. *Matricaria aurea* (L.) Schultz Bip. - X?
- 77. *Pulicaria odora* (L.) Reichenbach - X?

Family: HYACINTHACEAE

- 78. *Ornithogalum divergens* Boreau - X?
- 79. *Scilla clusii* Parlatores - X?
- 80. *Scilla hyacinthoides* L. - X?

Family: AMARYLLIDACEAE

- 81. *Pancratium* sp. indet. - X?

82. *Narcissus elegans* (Haworth) Spach - X?

Family: IRIDACEAE

83. *Iris pseudacorus* L. - X?

Family: ORCHIDACEAE

84. *Neotinea maculata* (Desfontaines) Stearn - X?

85. *Ophrys bertolonii* Moretti - X?

86. *Ophrys tenthredinifera* Willdenow - X?

87. *Orchis longicornu* Poiret - X?

88. *Orchis morio* L. - X?

89. *Serapias lingua* L. - X?

Family: JUNCACEAE

90. *Juncus capitatus* Weigel - X?

91. *Juncus effusus* L. - X?

Family: CYPERACEAE

92. *Cyperus papyrus* L. - X?

93. *Isolepis cernua* (Vahl) Roemer & Schultz - X?

Family: POACEAE

94. *Aeluropus lagopoides* (L.) Trinius - X?

95. *Alopecurus pratensis* L. - X?

96. *Ammophila littoralis* (Beauvois) Rothmaler - X?

97. *Anthoxanthum odoratum* L. - X?

98. *Anthoxanthum ovatum* Lagasca - X?

99. *Avellinia michelii* (Savi) Parlato - X?

100. *Cornucopiae cucullatum* L. - X?

101. *Cynosurus cristatus* L. - X?

102. *Dichanthium ischaemum* (L.) Roberty - X?

103. *Echinaria capitata* (L.) Desfontaines - X?

104. *Festuca cinerea* Villars - X?

105. *Hordeum bulbosum* L. - X?

106. *Schismus arabicus* Nees - X?

Family: ARECACEAE

107. *Chamaerops humilis* L. - X?

Family: SPARGANIACEAE

108. *Sparganium erectum* L. - X?

Family: ARACEAE

109. *Dracunculus vulgaris* Schott - X?

Total Number of Native Taxa: 900

Total Number of Possibly Extinct Native Taxa: 109

12% of the native vascular flora is threatened or already extinct.

2. LIST OF ENDANGERED VASCULAR PLANTS IN THE MALTESE ISLANDS

Only native, possibly native and archaeophytic species are included below; alien species were excluded. Species listed in bold are taxa not included in Lanfranco (1989), which however fit into RDB criteria.

Family: HYPOLEPIDACEAE

110. *Pteridium aquilinum* (L.) Kuhn - E

Family: ASPLENIACEAE

111. *Asplenium ceterach* L. - E

Family: CUPRESSACEAE

112. *Tetraclinis articulata* (Vahl) Masters - E

Family: ARISTOLOCHIACEAE

113. *Aristolochia clusii* Lojacono - E

Family: RANUNCULACEAE

114. *Delphinium staphisagrium* L. - E

Family: ULMACEAE

115. *Ulmus canescens* Melville - E

Family: URTICACEAE

116. *Parietaria cretica* L. - E

Family: CARYOPHYLLACEAE

117. *Silene fruticosa* L. - E

Family: CHENOPODIACEAE

118. *Halimione portulacoides* (L.) Aellen - E

Family: POLYGONACEAE

119. *Persicaria lanigera* (R. Brown) Soják - E

120. *Persicaria lapathifolia* (L.) S.F. Gray - E

121. *Polygonum maritimum* L. - E

Family: CISTACEAE

122. *Cistus creticus* L. ssp. *creticus* - E

Family: BRASSICACEAE

123. *Hymenolobus revelierei* (Jordan) Brullo ssp. *sommieri* (Pampanini) Brullo - E

Family: SALICACEAE

124. *Salix alba* L. - E

125. *Salix pedicellata* Desfontaines - E

Family: EUPHORBIACEAE

126. *Euphorbia paralias* L. - E

127. *Euphorbia peplis* L. - E

Family: ROSACEAE

- 128. *Pyrus amygdaliformis* Villars - E
- 129. *Pyrus pyraeaster* Burgsdorff - E
- 130. *Sarcopoterium spinosum* (L.) Spach - E

Family: FABACEAE

- 131. *Lathyrus amphicarpos* L. - E
- 132. *Lotus halophilus* Boissier & Spruner - E
- 133. *Lotus preslii* Tenore - E
- 134. *Ononis oligophylla* Tenore - E
- 135. *Ononis variegata* L. - E
- 136. *Spartium junceum* L. - E
- 137. *Trifolium repens* L. - E
- 138. *Vicia bithynica* (L.) L. - E

Family: ANACARDIACEAE

- 139. *Rhus coriaria* L. - E

Family: APIACEAE

- 140. *Bupleurum semicompositum* L. - E
- 141. *Echinophora spinosa* L. - E
- 142. *Pseudorhiza pumila* (L.) Grande - E

Family: CYNOMORIACEAE

- 143. *Cynomorium coccineum* L. - E

Family: OLEACEAE

- 144. *Phillyrea latifolia* L. - E
- 145. *Phillyrea media* L. - E

Family: CAPRIFOLIACEAE

- 146. *Viburnum tinus* L. - E

Family: CONVULVULACEAE

- 147. *Calystegia sepium* (L.) R. Brown - E
- 148. *Calystegia soldanella* (L.) Roemer & Schultes - E
- 149. *Calystegia x lucana* (Tenore) G. Don - E

Family: BORAGINACEAE

- 150. *Echium plantagineum* L. - E
- 151. *Echium sabulicola* Pomel - E

Family: LAMIACEAE (= LABIATAE)

- 152. *Mentha suaveolens* Ehrhart - E
- 153. *Salvia fruticosa* Miller - E
- 154. *Teucrium scordium* L. ssp. *scordioides* (Schreber) Arcangeli - E

Family: SCROPHULARIACEAE

- 155. *Linaria pseudolaxiflora* Lojacono - E
- 156. *Misopates calycinum* (Ventenat) Rothmaler - E
- 157. *Scrophularia auriculata* L. - E

Family: ASTERACEAE (= COMPOSITAE)

- 158. *Chondrilla juncea* L. - E
- 159. *Crepis pusilla* (Sommier) Merxmüller - E
- 160. *Otanthus maritimus* (L.) Hoffmannsegg & Link - E
- 161. *Sonchus* sp. indet. - E

Family: RUPPIACEAE

- 162. *Ruppia drepanensis* Tineo - E
- 163. *Ruppia maritima* L. - E

Family: LILIACEAE

- 164. *Tulipa australis* Link - E

Family: HYACINTHACEAE

- 165. *Muscari commutatum* Gussone - E

Family: ORCHIDACEAE

- 166. *Barlia robertiana* (Loiseleur) Greuter - E
- 167. *Ophrys apifera* Hudson - E
- 168. *Ophrys lacaitae* Lojacono - E
- 169. *Ophrys lunulata* Parlato - E
- 170. *Ophrys oxyrrhynchos* Todaro - E
- 171. *Orchis italica* Poiret - E
- 172. *Serapias vomeracea* (Burm. fil.) Briquet - E

Family: CYPERACEAE

- 173. *Carex extensa* Goodenough - E
- 174. *Cyperus distachyos* Allioni - E
- 175. *Cyperus fuscus* L. - E

Family: POACEAE

- 176. *Ampelodesmos mauritanicus* (Poiret) Durand & Schinz - E
- 177. *Catabrosa aquatica* (L.) Beauvois - E
- 178. *Crypsis aculeata* (L.) Aiton - E
- 179. *Crypsis schoenoides* (L.) Lamarck - E
- 180. *Elytrigia atherica* (Link) Kerguelen ex Carreras - E
- 181. *Elymus flaccidifolius* (Boissier & Heldreich) Melderis - E
- 182. *Glyceria plicata* Fries - E
- 183. *Puccinellia fasciculata* (Torrey) Bicknell - E

Total Number of Native Taxa: 900

Total Number of Endangered Native Taxa: 74

8% of the native vascular flora is threatened or already extinct.

3. LIST OF VULNERABLE VASCULAR PLANTS IN THE MALTESE ISLANDS

Only native, possibly native and archaeophytic species are included below; alien species were excluded. Species listed in bold are taxa not included in Lanfranco (1989), which however fit into RDB criteria.

Family: RANUNCULACEAE

- 184. *Adonis microcarpa* DC. - V
- 185. *Ranunculus saniculaefolius* Viviani - V
- 186. *Ranunculus trichophyllus* Chaix - V

Family: CARYOPHYLLACEAE

- 187. *Polycarpon diphyllum* Cavanilles - V
- 188. *Pteranthus dichotomus* Forsskäl - V

Family: CHENOPODIACEAE

- 189. *Cremnophyton lanfrancoi* Brullo & Pavone - V

Family: ELATINACEAE

- 190. *Elatine gussonei* (Sommier) Brullo, Lanfranco, Pavone & Ronsisvalle - V

Family: MALVACEAE

- 191. *Althaea hirsuta* L. - V

Family: EUPHORBIACEAE

- 192. *Euphorbia terracina* L. - V

Family: ROSACEAE

- 193. *Rosa sempervirens* L. - V

Family: FABACEAE

- 194. *Hedysarum spinosissimum* L. - V
- 195. *Hymenocarpus circinnatus* (L.) Savi - V
- 196. *Medicago marina* L. - V

Family: MYRTACEAE

- 197. *Myrtus communis* L. s.str. - V

Family: LINACEAE

- 198. *Linum bienne* Miller - V

Family: GERANIACEAE

- 199. *Erodium laciniatum* (Cavanilles) Willdenow - V

Family: APIACEAE

- 200. *Eryngium maritimum* L. - V

Family: RUBIACEAE

- 201. *Putoria calabrica* (L.f.) Persoon - V

Family: LAMIACEAE (= LABIATAE)

202. *Satureja graeca* L. ssp. *tenuifolia* (Tenore) Arcangeli - V

Family: CALLITRICHACEAE

203. *Callitriche truncata* Gussone ssp. *occidentalis* (Rouy) Schotsman - V

204. *Helichrysum melitense* (Pignatti) Brullo, Lanfranco, Pavone & Ronsisvalle - V

205. *Palaeocyanus crassifolius* (Bertoloni) Dostàl - V

Family: ALISMATACEAE

206. *Damasonium bourgaei* Cosson - V

Family: POTAMOGETONACEAE

207. *Potamogeton pectinatus* L. - V

208. *Potamogeton* sp. indet. - V

Family: ZANNICHELLIACEAE

209. *Zannichellia palustris* L. ssp. *pedicellata* (Wahlenberg & Rosen) Hegi - V

Family: POSIDONIACEAE

210. *Posidonia oceanica* (L.) Delile - V

Family: HYACINTHACEAE

211. *Ornithogalum arabicum* L. - V

Family: AMARYLLIDACEAE

212. *Pancratium maritimum* L. - V

213. *Narcissus tazetta* L. - V

Family: ALOEACEAE

214. *Aloe vera* (L.) Burmann f. - V

Family: IRIDACEAE

215. *Iris foetidissima* L. - V

216. *Iris pseudopumila* Tineo - V

217. *Iris sicula* Todaro - V

Family: ORCHIDACEAE

218. *Anacamptis pyramidalis* (L.) Richards - V

Family: JUNCACEAE

219. *Juncus maritimus* Lamarck - V

220. *Juncus sorrentinii* Parlato - V

221. *Juncus subulatus* Forsskäl - V

Family: CYPERACEAE

222. *Carex hispida* Willdenow - V

223. *Cyperus capitatus* Vandelli non Burmann - V

Family: POACEAE

224. *Cutandia maritima* (L.) Richter - V

225. *Elytrigia juncea* (L.) Nevski - V

- 226. *Sphenopus divaricatus* (Gouan) Reichenbach - V
- 227. *Sporobolus pungens* (Schreber) Kunth - V

Total Number of Native Taxa: 900

Total Number of Vulnerable Native Taxa: 44

5% of the native vascular flora is threatened or already extinct.

4. LIST OF VERY RARE VASCULAR PLANTS IN THE MALTESE ISLANDS

Only native, possibly native and archaeophytic species are included below; alien species were excluded. Species listed in bold are taxa not included in Lanfranco (1989), which however fit into RDB criteria.

Family: AIZOOACEAE

228. *Mesembryanthemum crystallinum* L. - RR

Family: CARYOPHYLLACEAE

229. *Arenaria leptoclados* (Reichenbach) Gussone - RR

Family: POLYGONACEAE

230. *Persicaria salicifolia* (Willdenow) Asenov - RR

231. *Polygonum bellardi* Allioni - RR

232. *Rumex cristatus* DC. - RR

Family: PLUMBAGINACEAE

233. *Limonium virgatum* x *zeraphae* - RR

Family: CISTACEAE

234. *Cistus monspeliensis* L. - RR

Family: BRASSICACEAE

235. *Cardaria draba* (L.) Desvaux ssp. *draba* - RR

Family: EUPHORBIACEAE

236. *Euphorbia characias* L. - RR

Family: CRASSULACEAE

237. *Sedum album* L. - RR

238. *Sedum caespitosum* (Cavanilles) DC. - RR

239. *Sedum stellatum* L. - RR

Family: ROSACEAE

240. *Rubus caesius* L. - RR

Family: FABACEAE

241. *Anagyris foetida* L. - RR

242. *Lathyrus annuus* L. - RR

243. *Lathyrus sphaericus* Retzius - RR

244. *Medicago arabica* (L.) Hudson - RR

245. *Ononis biflora* Desfontaines - RR

246. *Trifolium squamosum* L. - RR

247. *Trifolium squarrosum* L. - RR

Family: ONAGRACEAE

248. *Epilobium parviflorum* Schreber - RR

Family: ZYGOPHYLLACEAE

249. *Fagonia cretica* L. - RR

Family: ANACARDIACEAE

250. *Pistacia x saportae* Burnat. - RR
251. *Pistacia terebinthus* L. - RR

Family: GERANIACEAE

252. *Erodium chium* (L.) Willdenow - RR
253. *Geranium robertianum* L. - RR

Family: CAPRIFOLIACEAE

254. *Sambucus nigra* L. - RR

Family: VALERIANACEAE

255. *Centranthus ruber* (L.) DC. - RR
256. *Valerianella muricata* (Stevens) Baxter - RR

Family: CONVULVULACEAE

257. *Convolvulus cantabrica* L. - RR
258. *Convolvulus tricolor* L. ssp. *cupanianus* (Todaro) Cavara & Grande - RR

Family: BORAGINACEAE

259. *Neotostema apulum* (L.) I.M. Johnston - RR

Family: SOLANACEAE

260. *Lycium intricatum* Boissier - RR

Family: SCROPHULARIACEAE

261. *Kickxia elatine* (L.) Dumortier s.str. - RR
262. *Verbascum creticum* (L.) Cavanilles - RR

Family: OROBANCHACEAE

263. *Orobanche cernua* Loefling - RR
264. *Orobanche densiflora* Salzmann forma *melitensis* Beck - RR
265. *Orobanche picridis* F.W. Schultz - RR

Family: PLANTAGINACEAE

266. *Plantago bellardi* Allioni - RR

Family: ASTERACEAE (= COMPOSITAE)

267. *Atractylis cancellata* L. - RR
268. *Chrysanthemum segetum* L. - RR
269. *Lactuca saligna* L. - RR
270. *Rhagadiolus stellatus* (L.) Willdenow - RR
271. *Scolymus grandiflorus* Desfontaines - RR
272. *Senecio pygmaeus* DC. - RR

Family: ALLIACEAE

273. *Allium arvense* Gussone - RR
274. *Allium triquetrum* L. - RR
275. *Allium* sp. nov. - RR

Family: ASPHODELACEAE

276. *Asphodelus fistulosus* L. - RR

Family: ASPARAGACEAE

277. *Ruscus hypophyllum* L. - RR

Family: IRIDACEAE

278. *Crocus longiflorus* Rafinesque - RR279. *Gynandrisis sisyrinchium* (L.) Parlatores var. "aegyptica" - RR

Family: ORCHIDACEAE

280. *Ophrys lutea* Cavanilles - RR

Family: JUNCACEAE

281. *Juncus articulatus* L. - RR

Family: CYPERACEAE

282. *Bolboschoenus maritimus* (L.) Pallas - RR283. *Cyperus esculentus* L. - RR284. *Eleocharis ovata* (Roth) Roemer & Schultz - RR285. *Schoenus nigricans* L. - RR

Family: POACEAE

286. *Bromus neglectus* (Parlatore) Nyman - RR287. *Hordeum geniculatum* Allioni - RR288. *Phalaris truncata* Gussone - RR289. *Piptatherum coerulescens* (Desfontaines) Beauvois - RR290. *Piptatherum miliaceum* (L.) Cosson ssp. *thomasii* (Duby) Boissier - RR

Total Number of Native Taxa: 900

Total Number of Very Rare Native Taxa: 63

7% of the native vascular flora is threatened or already extinct.

5. LIST OF RARE VASCULAR PLANTS IN THE MALTESE ISLANDS

Only native, possibly native and archaeophytic species are included below; alien species were excluded. Species listed in bold are taxa not included in Lanfranco (1989), which however fit into RDB criteria.

Family: SELAGINELLACEAE

291. *Selaginella denticulata* (L.) Spring - R

Family: PAPAVERACEAE

292. *Fumaria bicolor* Nicotra - R

293. *Fumaria densiflora* DC. - R

294. *Hypocoum procumbens* L. - R

Family: URTICACEAE

295. *Parietaria lusitanica* L. - R

Family: FAGACEAE

296. *Quercus ilex* L. s.str. - R

Family: POLYGONACEAE

297. *Rumex pulcher* L. ssp. *pulcher* - R

Family: PLUMBAGINACEAE

298. *Limonium dubium* (Gussone) Litardière - R¹

299. *Limonium virgatum* (Willdenow) Fourreau - R

300. *Limonium zeraphae* Brullo - R

Family: CISTACEAE

301. *Cistus creticus* L. ssp. *eriocephalus* (Viviani) Greuter & Burdet - R

Family: CAPPARACEAE

302. *Capparis spinosa* L. s.str. - R

Family: BRASSICACEAE

303. *Brassica nigra* (L.) Koch in Röhling - R

304. *Cardamine flexuosa* Withering - R

305. *Cardamine hirsuta* L. - R

306. *Matthiola incana* (L.) R. Brown ssp. *melitensis* Brullo, Lanfranco, Pavone & Ronsisvalle - R

307. *Neslia apiculata* Fischer, Mayer & Avè-Lallemont - R

308. *Raphanus landra* Moretti - R

309. *Raphanus maritimus* Smith - R

Family: TAMARICACEAE

310. *Tamarix africana* Poiret - R

Family: SALICACEAE

311. *Populus alba* L. - R

¹ Included as *Limonium virgatum* subsp. *majus* in Lanfranco (1989).

Family: EUPHORBIACEAE

- 312.
- Euphorbia aleppica*
- L. - R

Family: CRASSULACEAE

- 313.
- Crassula tillaea*
- Lester-Garland - R
-
- 314.
- Sedum litoreum*
- Gussone - R

Family: ROSACEAE

- 315.
- Crataegus azarolus*
- L. - R

Family: FABACEAE

- 316.
- Coronilla valentina*
- L. - R
-
- 317.
- Medicago italica*
- (Miller) Fiori s.str. - R
-
- 318.
- Medicago murex*
- Willdenow - R
-
- 319.
- Medicago tomata*
- (L.) Miller - R
-
- 320.
- Medicago tuberculata*
- (Retzius) Willdenow - R
-
- 321.
- Vicia sativa*
- L. ssp.
- amphicarpa*
- (L.) Battandier - R

Family: APIACEAE

- 322.
- Apium graveolens*
- L. - R

Family: SANTALACEAE

- 323.
- Thesium humile*
- Vahl - R

Family: CAPRIFOLIACEAE

- 324.
- Sambucus ebulus*
- L. - R

Family: CONVULVULACEAE

- 325.
- Cressa cretica*
- L. - R

Family: VERBENACEAE

- 326.
- Vitex agnus-castus*
- L. - R

Family: LAMIACEAE (= LABIATAE)

- 327.
- Ballota nigra*
- L. ssp.
- uncinata*
- (Fiori & Beguinot) Patzak - R
-
- 328.
- Marrubium vulgare*
- L. - R
-
- 329.
- Melissa officinalis*
- L. - R
-
- 330.
- Rosmarinus officinalis*
- L. - R
-
- 331.
- Stachys ocymastrum*
- (L.) Briquet - R

Family: SCROPHULARIACEAE

- 332.
- Cymbalaria muralis*
- Gaertner - R
-
- 333.
- Linaria chalepensis*
- (L.) Miller - R
-
- 334.
- Veronica agrestis*
- L. - R

Family: OROBANCHACEAE

- 335.
- Orobanche hederæ*
- Duby - R
-
- 336.
- Orobanche minor*
- Smith - R

Family: ASTERACEAE (= COMPOSITAE)

- 337.
- Carduncellus coeruleus*
- (L.) DC. - R
-
- 338.
- Catananche lutea*
- L. - R

339. *Centaurea melitensis* L. - R
 340. *Cynara scolymus x cardunculus* - R
 341. *Onopordum argolicum* Boissier - R
 342. *Pulicaria dysenterica* (L.) Bernhardt - R
 343. *Senecio leucanthemifolius* Poiré - R
 344. *Sonchus asper* (L.) Hill ssp. *nymani* (Tineo ex Gussone) Hegi - R

Family: JUNCAGINACEAE

345. *Triglochin barrelieri* Loisel - R

Family: HYACINTHACEAE

346. *Bellevalia romana* (L.) Sweet - R
 347. *Muscari neglectum* Gussone - R
 348. *Scilla sicula* Tineo - R

Family: ALLIACEAE

349. *Allium amethystinum* Tausch - R

Family: DIOSCOREACEAE

350. *Tamus communis* L. - R

Family: ORCHIDACEAE

351. *Anacamptis urvilleana* Sommier & Caruana Gatto - R
 352. *Ophrys sicula* Tineo - R²
 353. *Ophrys speculum* Link - R
 354. *Spiranthes spiralis* (L.) Chevallier - R

Family: JUNCACEAE

355. *Juncus acutus* L. - R

Family: CYPERACEAE

356. *Carex divulsa* Stokes - R
 357. *Carex hallerana* Asso - R

Family: POACEAE

358. *Bromus alopecuroides* Poiré - R
 359. *Gastridium scabrum* Presl - R
 360. *Lolium multiflorum* Lamarck ssp. *gaudinii* (Parlatore) Schinz & Thellung - R
 361. *Melica magnolii* Grenier & Godron - R
 362. *Phalaris aquatica* L. - R
 363. *Triplachne nitens* (Gussone) Link - R

Family: LEMNACEAE

364. *Lemna minor* L. - R

Total Number of Native Taxa: 900

Total Number of Rare Native Taxa: 74

8% of the native vascular flora is threatened or already extinct.

² Included as *Ophrys lutea* subsp. *murbeckii* in Lanfranco (1989).

6. LIST OF VASCULAR PLANTS OF INDETERMINATE STATUS IN THE MALTESE ISLANDS

Only native, possibly native and archaeophytic species are included below; alien species were excluded. Species listed in bold are taxa not included in Lanfranco (1989), which however fit into RDB criteria.

Family: CARYOPHYLLACEAE

365. *Sagina apetala* ssp. *erecta* F. Hermann - I
366. *Silene vulgaris* ssp. *commutata* (Gussone) Hayek - I
367. *Silene vulgaris* ssp. *macrocarpa* Turrill - I

Family: CHENOPODIACEAE

368. *Sarcocornia fruticosa* (L.) A. J. Scott - I

Family: POLYGONACEAE

369. *Polygonum arenastrum* Boreau - I

Family: BRASSICACEAE

370. *Diplotaxis fruticulosa* Parlatore ex Caruel - I

Family: FABACEAE

371. *Medicago rigidula* (L.) Allioni - I

Family: APIACEAE

372. *Daucus gingidium* L. - I
373. *Daucus lopadusanus* Tineo - I

Family: VITACEAE

374. *Vitis vinifera* L. ssp. *sylvestris* (Gmelin) Hegi - I

Family: OLEACEAE

375. *Olea oleaster* Hoffmannsegg & Link - I

Family: BORAGINACEAE

376. *Cerithe major* L. ssp. *gymnandra* (Gasparini) Rouy - I

Family: PLANTAGINACEAE

377. *Plantago crypsoides* Boissier - I

Family: ASTERACEAE (= COMPOSITAE)

378. *Anthemis arvensis* L. ssp. *incrassata* (Loiseleur) Nyman - I
379. *Calendula sicula* Gussone - I
380. *Carduus tenuiflorus* Curtis - I
381. *Cichorium pumilum* Jacquin - I
382. *Filago pyramidata* L. - I
383. *Reichardia intermedia* (Schultz Bip.) Coutinho - I

Family: IRIDACEAE

384. *Gladiolus byzantinus* Miller - I
385. *Gladiolus dubius* Gussone - I
386. *Romulea melitensis* Bèguinot - I

Family: ORCHIDACEAE

- 387. *Ophrys attaviria* Rockbrot & Wenker - I
- 388. *Ophrys bilunulata* Risso - I
- 389. *Ophrys fusca* Link s.str. - I
- 390. *Ophrys mesaritica* Paulus & Alibertis - I

Family: CYPERACEAE

- 391. *Cyperus badius* Desfontaines - I

Family: POACEAE

- 392. *Avena atherantha* C. Presl - I
- 393. *Catapodium rigidum* (L.) Hubbard ssp. *majus* (C.Presl) Perring & Sell - I
- 394. *Hordeum murinum* L. - I
- 395. *Hyparrhenia hirta* (L.) Stapf ssp. *pubescens* (Visiani) Paunero - I
- 396. *Melica ciliata* L. - I
- 397. *Phalaris brachystachys* Link - I
- 398. *Poa annua* L. - I

Total Number of Native Taxa: 900

Total Number of Native Taxa with an Indeterminate status: 34

4% of the native vascular flora is threatened or already extinct.

CONCLUSION:

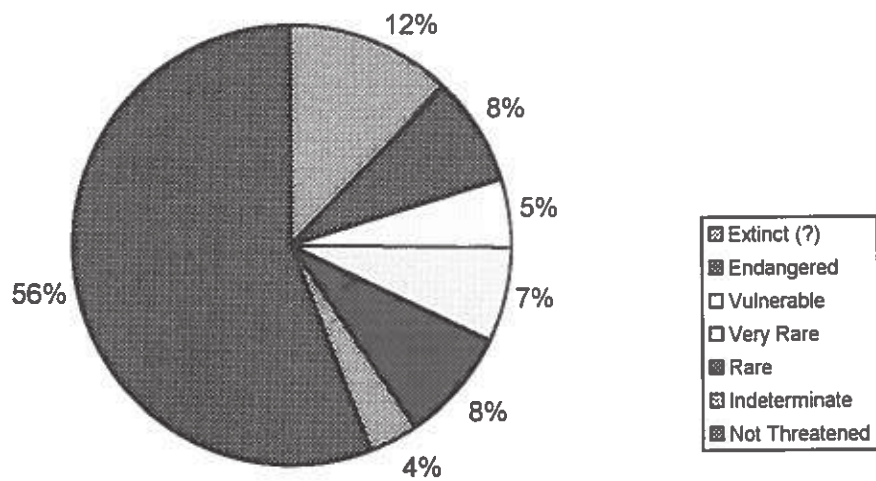
Total Number of Native Taxa: 900

Total Number of Threatened Native Taxa: 398

These are subdivided as:

109	Possibly Extinct
74	Endangered
44	Vulnerable
63	Very Rare
74	Rare
34	Indeterminate

44% of the native vascular flora is threatened or already extinct.



**SPECIES NOT LISTED HERE
BUT LISTED IN THE RED DATA BOOK**

Of the species given as threatened in Lanfranco (1989), the following are not listed in Appendix I for the reasons explained below:

***Polygonum mite* Schrank [RDB 11: E, Rest (MI)]**

Misidentification for *Persicaria senegalensis* (Meissner) Soják, which is alien.

***Laurus nobilis* L. [RDB 15: R, Rest (MI)]**

On the increase following reduction in grazing.

***Enarthrocarpus pterocarpus* (Persoon) DC. [RDB 15: E, Rest (MI)]**

Alien. Still seriously endangered. Currently, Manoel Island is the known European locality for this species. Legally protected through Legal Notice 49 of 1993.

***Sorbus aucuparia* L. [RDB 18: X?]**

Records never confirmed.

***Olea europaea* L. [RDB 27: Rest (MI)]**

Not threatened. Its wild variety, *Olea oleaster*, included under this taxon in Lanfranco (1989) is of indeterminate status, and is hence included above.

***Typha domingensis* (Persoon) Steudel [RDB 46: R, Rest (MI)]**

On the increase. Is now almost ubiquitous in water-catchment areas.

***Halophila stipulacea* (Forsskål) Ascherson [RDB 50: R, Rest (Med + MI)]**

Alien, but naturally colonising the Mediterranean from the Suez Canal. Native to the Red Sea and Indian Ocean.

***Zostera marina* L. [RDB 50: X?, Rest (Med)]**

Records never confirmed.

***Zostera noltii* Hornemann [RDB 50: X?, Rest (Med)]**

Records never confirmed.

SPECIES NOT PREVIOUSLY INCLUDED IN THE RED DATA BOOK

1. *Adonis aestivalis* L. ssp. *squarrosa* (Steven) Nyman - X?
2. *Adonis microcarpa* DC. - V
3. *Allium* sp. nov. - RR
4. *Anacamptis pyramidalis* (L.) Richards - V
5. *Anthemis arvensis* L. ssp. *incrassata* (Loiseleur) Nyman - I
6. *Apium graveolens* L. - R
7. *Arenaria leptoclados* (Reichenbach) Gussone - RR
8. *Avena atherantha* C. Presl - I
9. *Ballota nigra* L. ssp. *uncinata* (Fiori & Beguinot) Patzak - R
10. *Brassica nigra* (L.) Koch in Röhling - R
11. *Calystegia sepium* (L.) R. Brown - E
12. *Capparis spinosa* L. s.str. - R
13. *Cardamine flexuosa* Withering - R
14. *Cardamine hirsuta* L. - R
15. *Cardaria draba* (L.) Desvaux ssp. *draba* - RR
16. *Carduus tenuiflorus* Curtis - I
17. *Carex divulsa* Stokes - R
18. *Catapodium rigidum* (L.) Hubbard ssp. *majus* (C.Presl) Perring & Sell - I
19. *Centaurea solistitialis* L. - X?
20. *Cercis siliquastrum* L. - X
21. *Cerinth major* L. ssp. *gymnandra* (Gasparrini) Rouy - I
22. *Chaenorhinum minus* (L.) Lange - X?
23. *Cichorium pumilum* Jacquin - I
24. *Coronilla valentina* L. - R
25. *Crypsis schoenoides* (L.) Lamarck - E
26. *Cymbalaria muralis* Gaertner - R
27. *Cynara scolymus* x *cardunculus* - R
28. *Cyperus badius* Desfontaines - I
29. *Cyperus esculentus* L. - RR
30. *Cyperus papyrus* L. - X?
31. *Daucus gingidium* L. - I
32. *Dichanthium ischaemum* (L.) Roberty - X?
33. *Diplotaxis fruticulosa* Parlatores ex Caruel - I
34. *Echinops sicalus* Strobl - X?
35. *Echium sabulicola* Pomel - E
36. *Elytrigia juncea* (L.) Nevski - V
37. *Epilobium parviflorum* Schreber - RR
38. *Erodium acaule* (L.) Becherer & Thellung - X?
39. *Euphorbia aleppica* L. - R
40. *Euphorbia biumbellata* Poirer - X?
41. *Filago pyramidata* L. - I
42. *Fraxinus* sp. - X
43. *Fumaria bicolor* Nicotra - R
44. *Fumaria densiflora* DC. - R
45. *Geranium robertianum* L. - RR
46. *Gladiolus byzantinus* Miller - I
47. *Halocnemum strobiliaceum* (Pallas) M. Bieberstein - X?
48. *Hibiscus trionum* L. - X?
49. *Hordeum murinum* L. - I
50. *Hyparrhenia hirta* (L.) Stapf ssp. *pubescens* (Visiani) Paunero - I

51. *Hypocoum procumbens* L. - R
52. *Hypochoeris cretensis* (L.) Chaubard & Bory - X?
53. *Juncus acutus* L. - R
54. *Juncus articulatus* L. - RR
55. *Juncus sorrentinii* Parlatores - V
56. *Juncus subulatus* Forsskäl - V
57. *Lactuca saligna* L. - RR
58. *Launaea resedifolia* (L.) Kuntze - X?
59. *Lemna minor* L. - R
60. *Limonium dubium* (Gussone) Litardière - R³
61. *Limonium virgatum* x *zeraphae* - RR
62. *Linaria chalepensis* (L.) Miller - R
63. *Lolium multiflorum* Lamarck ssp. *gaudinii* (Parlatores) Schinz & Thellung - R
64. *Lotus halophilus* Boissier & Spruner - E
65. *Malcolmia maritima* (L.) R. Brown - X?
66. *Malope stipulacea* Cavanilles - X?
67. *Marrubium vulgare* L. - R
68. *Medicago italica* (Miller) Fiori s.str. - R
69. *Medicago rigidula* (L.) Allioni - I
70. *Medicago tornata* (L.) Miller - R
71. *Medicago tuberculata* (Retzius) Willdenow - R
72. *Melica ciliata* L. - I
73. *Melica magnolii* Grenier & Godron - R
74. *Melissa officinalis* L. - R
75. *Misopates calycinum* (Ventenat) Rothmaler - E
76. *Narcissus tazetta* L. - V
77. *Olea oleaster* Hoffmannsegg & Link - I
78. *Ononis pendula* Desfontaines - X?
79. *Ophrys attaviria* Rockbrot & Wenker - I
80. *Ophrys bilunulata* Risso - I
81. *Ophrys fusca* Link s.str. - I
82. *Ophrys lacaitae* Lojacono - E
83. *Ophrys lunulata* Parlatores - E
84. *Ophrys mesaritica* Paulus & Alibertis - I
85. *Ophrys sicula* Tineo - R⁴
86. *Ophrys speculum* Link - R
87. *Orchis longicornu* Poirer - X?
88. *Ornithogalum arabicum* L. - V
89. *Orobanche hederæ* Duby - R
90. *Orobanche minor* Smith - R
91. *Orobanche picridis* F.W. Schultz - RR
92. *Otanthus maritimus* (L.) Hoffmannsegg & Link - E
93. *Pancratium* sp. indet. - X?
94. *Persicaria lanigera* (R. Brown) Soják - E
95. *Persicaria lapathifolia* (L.) S.F. Gray - E
96. *Persicaria maculosa* S.F. Gray - X?
97. *Phalaris aquatica* L. - R
98. *Phalaris brachystachys* Link - I
99. *Phillyrea latifolia* L. - E
100. *Phillyrea media* L. - E

³ Included as *Limonium virgatum* subsp. *majus* in Lanfranco (1989).

⁴ Included as *Ophrys lutea* subsp. *murbeckii* in Lanfranco (1989).

101. *Pinus halepensis* Miller - X?
102. *Piptatherum miliaceum* (L.) Cosson ssp. *thomasii* (Duby) Boissier - RR
103. *Pistacia terebinthus* L. - RR
104. *Pistacia x saportae* Burnat. - RR
105. *Poa annua* L. - I
106. *Polygonum arenastrum* Boreau - I
107. *Polygonum bellardi* Allioni - RR
108. *Potamogeton* sp. indet. - V
109. *Prunus spinosa* L. - X?
110. *Pyrus pyraaster* Burgsdorff - E
111. *Ranunculus saniculaefolius* Viviani - V
112. *Ranunculus trichophyllus* Chaix - V
113. *Raphanus landra* Moretti - R
114. *Raphanus maritimus* Smith - R
115. *Reichardia intermedia* (Schultz Bip.) Coutinho - I
116. *Rumex cristatus* DC. - RR
117. *Rumex pulcher* L. ssp. *pulcher* - R
118. *Sagina apetala* ssp. *erecta* F. Hermann - I
119. *Sambucus nigra* L. - RR
120. *Sarcocornia fruticosa* (L.) A. J. Scott - I
121. *Scilla clusii* Parlato - X?
122. *Scilla hyacinthoides* L. - X?
123. *Silene pendula* L. - X?
124. *Silene vulgaris* ssp. *commutata* (Gussone) Hayek - I
125. *Silene vulgaris* ssp. *macrocarpa* Turrill - I
126. *Sonchus asper* (L.) Hill ssp. *nymani* (Tineo ex Gussone) Hegi - R
127. *Sonchus* sp. indet. - E
128. *Spergularia purpurea* (Persoon) G. Don fil. - X?
129. *Sporobolus pungens* (Schreber) Kunth - V
130. *Symphytum officinale* L. - X?
131. *Torilis arvensis* (Hudson) Link ssp. *purpurea* (Tenore) Hayek - X?
132. *Trifolium repens* L. - E
133. *Trigonella maritima* Poir. - X?
134. *Veronica agrestis* L. - R
135. *Viburnum tinus* L. - E
136. *Vicia peregrina* L. - X?
137. *Vicia sativa* L. ssp. *amphicarpa* (L.) Battandier - R
138. *Vitis vinifera* L. ssp. *sylvestris* (Gmelin) Hegi - I