**Supplementary Table 5.** **List of species and references used in the global dataset.** Full list of literature sources and databases used to compile the *global* species-level *dataset* for each ecophysiological trait.

(a) Net photosynthetic rate per unit area

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** | **Family** | **Order** | **Pathway** | **Reference** | **Database** |
| *Abelmoschus esculentus* | Malvaceae | Malvales | C3 | This study | N.A. |
| *Abutilon theophrasti* | Malvaceae | Malvales | C3 | 1,2 | TRY |
| *Acalypha virginica* | Euphorbiaceae | Malpighiales | C3 | 3 | TRY |
| *Aconitum gymnandrum* | Ranunculaceae | Ranunculales | C3 | 4 | TRY |
| 5 | BIEN |
| *Aegilops cylindrica* | Poaceae | Poales | C3 | 6 | TRY |
| *Aegilops geniculata* | Poaceae | Poales | C3 | 2 | TRY |
| *Aegilops triuncialis* | Poaceae | Poales | C3 | 7 | BIEN |
| *Aeluropus littoralis* | Poaceae | Poales | C4 | 6 | TRY |
| *Agriophyllum squarrosum* | Amaranthaceae | Caryophyllales | C4 | 2 | TRY |
| *Agrostis inaequiglumis* | Poaceae | Poales | C3 | 6 | TRY |
| *Agrostis lachnantha* | Poaceae | Poales | C3 | 6 | TRY |
| *Agrostis scabra* | Poaceae | Poales | C3 | 2,8,9 | TRY |
| *Aira caryophyllea* | Poaceae | Poales | C3 | 7 | BIEN |
| *Alopecurus carolinianus* | Poaceae | Poales | C3 | 6 | TRY |
| *Alopecurus myosuroides* | Poaceae | Poales | C3 | 6 | TRY |
| *Alopecurus utriculatus* | Poaceae | Poales | C3 | 6 | TRY |
| *Amaranthus blitoides* | Amaranthaceae | Caryophyllales | C4 | 2,10 | TRY |
| *Amaranthus cruentus* | Amaranthaceae | Caryophyllales | C4 | This study | N.A. |
| *Amaranthus retroflexus* | Amaranthaceae | Caryophyllales | C4 | 1,2,10 | TRY |
| *Anthyllis vulneraria* | Fabaceae | Fabales | C3 | 11 | TRY |
| *Apera spica-venti* | Poaceae | Poales | C3 | 12,13 | TRY |
| *Arabidopsis thaliana* | Brassicaceae | Brassicales | C3 | 14–16 | TRY |
|  |  |  |  | 17–21 | N.A. |
| *Arachis hypogaea* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Arachis monticola* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Aristida oligantha* | Poaceae | Poales | C4 | 10 | TRY |
| *Artemisia annua* | Asteraceae | Asterales | C3 | 2 | TRY |
| *Artemisia scoparia* | Asteraceae | Asterales | C3 | 2 | TRY |
| *Arthraxon hispidus* | Poaceae | Poales | C4 | 2 | TRY |
| *Atriplex hortensis* | Amaranthaceae | Caryophyllales | C4 | 16 | TRY |
| *Atriplex laevis* | Amaranthaceae | Caryophyllales | C4 | 2 | TRY |
| *Atriplex oblongifolia* | Amaranthaceae | Caryophyllales | C4 | 2 | TRY |
| *Avena barbata* | Poaceae | Poales | C3 | 1 | TRY |
|  |  |  |  | 7 | BIEN |
| *Avena fatua* | Poaceae | Poales | C3 | 12,13,22 | TRY |
|  |  |  |  | 7 | BIEN |
| *Avena sativa* | Poaceae | Poales | C3 | This study | N.A. |
|  |  |  |  | 7 | BIEN |
| *Avena sterilis* | Poaceae | Poales | C3 | This study | N.A. |
| *Axyris amaranthoides* | Amaranthaceae | Caryophyllales | C4 | 23 | TRY |
| *Beckmannia syzigachne* | Poaceae | Poales | C3 | 6 | TRY |
| *Beta vulgaris* | Amaranthaceae | Caryophyllales | C3 | 24,25 | N.A. |
|  |  |  |  | 2,16 | TRY |
| *Bidens cernua* | Asteraceae | Asterales | C3 | 26 | TRY |
| *Bidens frondosa* | Asteraceae | Asterales | C3 | 26 | TRY |
| *Borago officinalis* | Boraginaceae | Boraginales | C3 | This study | N.A. |
| *Bothriochloa pertusa* | Poaceae | Poales | C4 | 27 | China Plant Trait |
| *Brachiaria eruciformis* | Poaceae | Poales | C4 | 6 | TRY |
| *Brachiaria mollis* | Poaceae | Poales | C3 | 6 | TRY |
| *Brachiaria platyphylla* | Poaceae | Poales | C4 | 6 | TRY |
| *Brachiaria ruziziensis* | Poaceae | Poales | C4 | 6 | TRY |
| *Brachypodium distachyon* | Poaceae | Poales | C3 | 1,2 | TRY |
| *Brassica napus* | Brassicaceae | Brassicales | C3 | 28–31 | N.A. |
|  |  |  |  | 32 | TRY |
| *Brassica oleracea* | Brassicaceae | Brassicales | C3 | 32 | TRY |
|  |  |  |  | 25 | N.A. |
|  |  |  |  | This study | N.A. |
| *Brassica rapa* | Brassicaceae | Brassicales | C3 | 1 | TRY |
| *Briza maxima* | Poaceae | Poales | C3 | 33 | AusTraits |
|  |  |  |  | 7 | BIEN |
| *Bromus alopecuros* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus carinatus* | Poaceae | Poales | C3 | 6 | TRY |
|  |  |  |  | 7 | BIEN |
| *Bromus danthoniae* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus diandrus* | Poaceae | Poales | C3 | 7 | BIEN |
| *Bromus hordeaceus* | Poaceae | Poales | C3 | 1,12,13 | TRY |
|  |  |  |  | 7 | BIEN |
| *Bromus intermedius* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus japonicus* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus lanceolatus* | Poaceae | Poales | C3 | 2,6 | TRY |
| *Bromus madritensis* | Poaceae | Poales | C3 | 1 | TRY |
| *Bromus pectinatus* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus sterilis* | Poaceae | Poales | C3 | 12,13 | TRY |
| *Campanula americana* | Campanulaceae | Asterales | C3 | 34 | TRY |
| *Capsicum annuum* | Solanaceae | Solanales | C3 | 16 | TRY |
|  |  |  |  | 35 | N.A. |
| *Cenchrus echinatus* | Poaceae | Poales | C4 | 6 | TRY |
| *Centaurea cyanus* | Asteraceae | Asterales | C3 | 3,34 | TRY |
| *Cerastium glomeratum* | Caryophyllaceae | Caryophyllales | C3 | 13 | TRY |
| *Chamaecrista fasciculata* | Fabaceae | Fabales | C3 | 10 | TRY |
| *Chenopodium acuminatum* | Amaranthaceae | Caryophyllales | C3 | 2 | TRY |
| *Chloris radiata* | Poaceae | Poales | C4 | 6 | TRY |
| *Chloris virgata* | Poaceae | Poales | C4 | 2 | TRY |
| *Chylismia brevipes* | Onagraceae | Myrtales | C3 | 2 | TRY |
| *Chylismia claviformis* | Onagraceae | Myrtales | C3 | 2 | TRY |
| *Corispermum mongolicum* | Amaranthaceae | Caryophyllales | C3 | 2 | TRY |
| *Crassocephalum crepidioides* | Asteraceae | Asterales | C3 | 22 | TRY |
| *Crepis capillaris* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Cucumis sativus* | Cucurbitaceae | Cucurbitales | C3 | 36 | N.A. |
|  |  |  |  | 16 | TRY |
| *Cynosurus echinatus* | Poaceae | Poales | C3 | 7 | BIEN |
| *Cyperus diandrus* | Cyperaceae | Poales | C4 | 26 | TRY |
| *Cyperus flavidus* | Cyperaceae | Poales | C4 | 37 | TRY |
| *Cyperus reduncus* | Cyperaceae | Poales | C4 | 26 | TRY |
| *Dactyloctenium aegyptium* | Poaceae | Poales | C4 | 6 | TRY |
| *Dactyloctenium radulans* | Poaceae | Poales | C4 | 32 | TRY |
| *Danthoniopsis dinteri* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria bicornis* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria ciliaris* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria debilis* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria eriostachya* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria ischaemum* | Poaceae | Poales | C4 | 3,6,26 | TRY |
| *Digitaria setigera* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria ternata* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria violascens* | Poaceae | Poales | C4 | 6 | TRY |
| *Diplotaxis ibicensis* | Brassicaceae | Brassicales | C3 | 24 | N.A. |
|  |  |  |  | 16 | TRY |
| *Echinaria capitata* | Poaceae | Poales | C3 | 6 | TRY |
| *Echinochloa muricata* | Poaceae | Poales | C4 | 6 | TRY |
| *Echium plantagineum* | Boraginaceae | Boraginales | C3 | 16 | TRY |
| *Ehrharta longiflora* | Poaceae | Poales | C3 | 6 | TRY |
| *Eleocharis obtusa* | Cyperaceae | Poales | C3 | 26 | TRY |
| *Eleusine coracana* | Poaceae | Poales | C4 | 6 | TRY |
| *Eleusine indica* | Poaceae | Poales | C4 | 6,10 | TRY |
| *Eleusine tristachya* | Poaceae | Poales | C4 | 6 | TRY |
| *Enneapogon gracilis* | Poaceae | Poales | C4 | 6 | TRY |
| *Enneapogon lindleyanus* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis macilenta* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis minor* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis neesii* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis patentipilosa* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis pectinacea* | Poaceae | Poales | C4 | 6,10,26 | TRY |
| *Eragrostis pilosa* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis porosa* | Poaceae | Poales | C4 | 6 | TRY |
| *Eremopyrum triticeum* | Poaceae | Poales | C3 | 6 | TRY |
| *Erigeron annuus* | Asteraceae | Asterales | C3 | 10 | TRY |
| *Eriochloa contracta* | Poaceae | Poales | C3 | 6 | TRY |
| *Euphorbia helioscopia* | Euphorbiaceae | Malpighiales | C3 | 2 | TRY |
| *Euphorbia humifusa* | Euphorbiaceae | Malpighiales | C4 | 2 | TRY |
| *Euphorbia nutans* | Euphorbiaceae | Malpighiales | C4 | 10 | TRY |
| *Festuca incurva* | Poaceae | Poales | C3 | 6 | TRY |
| *Gastridium ventricosum* | Poaceae | Poales | C3 | 6 | TRY |
| *Glycine max* | Fabaceae | Fabales | C3 | 20,38 | N.A. |
|  |  |  |  | 1,16 | TRY |
| *Gnaphalium affine* | Asteraceae | Asterales | C3 | 2,4 | TRY |
| *Gnaphalium luteoalbum* | Asteraceae | Asterales | C3 | 5 | BIEN |
| *Grubovia dasyphylla* | Amaranthaceae | Caryophyllales | C4 | 2 | TRY |
| *Helianthus agrestis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus annuus* | Asteraceae | Asterales | C3 | 1,10,16 | TRY |
|  |  |  |  | 39 | BIEN |
|  |  |  |  | 25,35,40 | N.A. |
| *Helianthus argophyllus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus debilis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus neglectus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus praecox* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Hordeum murinum* | Poaceae | Poales | C3 | 1 | TRY |
| *Hordeum pusillum* | Poaceae | Poales | C3 | 6,10 | TRY |
| *Hordeum vulgare* | Poaceae | Poales | C3 | 1 | TRY |
| *Impatiens capensis* | Balsaminaceae | Ericales | C3 | 37 | TRY |
| *Impatiens noli-tangere* | Balsaminaceae | Ericales | C3 | 2 | TRY |
| *Impatiens rubrostriata* | Balsaminaceae | Ericales | C3 | 22 | TRY |
| *Iseilema macratherum* | Poaceae | Poales | C4 | 6 | TRY |
| *Jacobaea vulgaris* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Kali collinum* | Amaranthaceae | Caryophyllales | C4 | 2,23 | TRY |
| *Kalimeris altaica* | Asteraceae | Asterales | C3 | 2 | TRY |
| *Lactuca canadensis* | Asteraceae | Asterales | C3 | 10 | TRY |
| *Lactuca ludoviciana* | Asteraceae | Asterales | C3 | 2,10 | TRY |
| *Lactuca sativa* | Asteraceae | Asterales | C3 | This study | N.A. |
| *Lactuca serriola* | Asteraceae | Asterales | C3 | This study | N.A. |
| *Lapsana communis* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Lepidium densiflorum* | Brassicaceae | Brassicales | C3 | 10 | TRY |
| *Leptochloa fusca* | Poaceae | Poales | C4 | 6 | TRY |
| *Lipandra polysperma* | Amaranthaceae | Caryophyllales | C3 | 3,26,34 | TRY |
| *Lolium canariense* | Poaceae | Poales | C3 | 6 | TRY |
| *Lolium persicum* | Poaceae | Poales | C3 | 6 | TRY |
| *Lolium rigidum* | Poaceae | Poales | C3 | 1,6 | TRY |
| *Lotus corniculatus* | Fabaceae | Fabales | C3 | 11–13 | TRY |
| *Matricaria chamomilla* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Melanocenchris abyssinica* | Poaceae | Poales | C3 | 6 | TRY |
| *Melinis repens* | Poaceae | Poales | C4 | 2 | TRY |
| *Mentha spicata* | Lamiaceae | Lamiales | C3 | 16 | TRY |
| *Microstegium vimineum* | Poaceae | Poales | C4 | 6,37 | TRY |
| *Muhlenbergia microsperma* | Poaceae | Poales | C4 | 6 | TRY |
| *Myagrum perfoliatum* | Brassicaceae | Brassicales | C3 | 34 | TRY |
| *Nepeta tenuifolia* | Lamiaceae | Lamiales | C3 | 2 | TRY |
| *Nigella damascena* | Ranunculaceae | Ranunculales | C3 | 34 | TRY |
| *Ocimum basilicum* | Lamiaceae | Lamiales | C3 | 16 | TRY |
|  |  |  |  | 35 | N.A. |
| *Ophiuros exaltatus* | Poaceae | Poales | C4 | 6 | TRY |
| *Oryza barthii* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza brachyantha* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza latifolia* | Poaceae | Poales | C3 | 16 | TRY |
|  |  |  |  | 41 | N.A. |
| *Oryza minuta* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza officinalis* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza punctata* | Poaceae | Poales | C3 | 16 | TRY |
|  |  |  |  | 41 | N.A. |
| *Oryza rufipogon* | Poaceae | Poales | C3 | 16 | TRY |
|  |  |  |  | 41 | N.A. |
| *Oryza sativa* | Poaceae | Poales | C3 | 20,36,40–53 | N.A. |
|  |  |  |  | 1,16,54 | TRY |
| *Oxybasis glauca* | Amaranthaceae | Caryophyllales | C4 | 2,23 | TRY |
| *Panicum bisulcatum* | Poaceae | Poales | C3 | 6 | TRY |
| *Panicum capillare* | Poaceae | Poales | C4 | 2,3,10,26 | TRY |
| *Panicum dichotomiflorum* | Poaceae | Poales | C4 | 6 | TRY |
| *Panicum laevinode* | Poaceae | Poales | C4 | 6 | TRY |
| *Panicum schinzii* | Poaceae | Poales | C4 | 6 | TRY |
| *Papaver dubium* | Papaveraceae | Ranunculales | C3 | 12,13 | TRY |
| *Pennisetum glaucum* | Poaceae | Poales | C4 | 3,10 | TRY |
|  |  |  |  | This study | N.A. |
| *Perotis patens* | Poaceae | Poales | C4 | 6 | TRY |
| *Persicaria bungeana* | Polygonaceae | Caryophyllales | C3 | 2,26 | TRY |
| *Persicaria lapathifolia* | Polygonaceae | Caryophyllales | C3 | 2,26 | TRY |
| *Phalaris canariensis* | Poaceae | Poales | C3 | 6 | TRY |
| *Phaseolus vulgaris* | Fabaceae | Fabales | C3 | 35,55,56 | N.A. |
|  |  |  |  | 1,16 | TRY |
| *Phleum boissieri* | Poaceae | Poales | C3 | 6 | TRY |
| *Phoebanthus tenuifolius* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Pisum sativum* | Fabaceae | Fabales | C3 | 25 | N.A. |
| *Plantago major* | Plantaginaceae | Lamiales | C3 | 2,3,12,13,15,16,26,57 | TRY |
| *Poa annua* | Poaceae | Poales | C3 | 1,13,16,57 | TRY |
| *Polypogon monspeliensis* | Poaceae | Poales | C3 | 6 | TRY |
| *Raphanus raphanistrum* | Brassicaceae | Brassicales | C3 | 1,12,13,16 | TRY |
| *Rostraria cristata* | Poaceae | Poales | C3 | 2–4,23 | TRY |
|  |  |  |  | 5 | BIEN |
| *Rudbeckia hirta* | Asteraceae | Asterales | C3 | 10 | TRY |
| *Secale cereale* | Poaceae | Poales | C3 | 16 | TRY |
| *Sesamum indicum* | Pedaliaceae | Lamiales | C3 | This study | N.A. |
| *Setaria plicata* | Poaceae | Poales | C4 | 27 | China Plant Trait |
| *Setaria viridis* | Poaceae | Poales | C4 | 2,3,6 | TRY |
| *Sigesbeckia orientalis* | Asteraceae | Asterales | C3 | 58 | AusTraits |
| *Solanum lycopersicum* | Solanaceae | Solanales | C3 | 25,59 | N.A. |
|  |  |  |  | 1,16 | TRY |
|  |  |  |  | 60 | BIEN |
|  |  |  |  | This study | N.A. |
| *Solanum pimpinellifolium* | Solanaceae | Solanales | C3 | 25 | N.A. |
|  |  |  |  | 60 | BIEN |
|  |  |  |  | This study | N.A. |
| *Solanum rostratum* | Solanaceae | Solanales | C3 | 10 | TRY |
| *Sonchus asper* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Sphenopholis obtusata* | Poaceae | Poales | C3 | 6 | TRY |
| *Spinacia oleracea* | Amaranthaceae | Caryophyllales | C3 | 16 | TRY |
|  |  |  |  | 35,52 | N.A. |
| *Suaeda glauca* | Amaranthaceae | Caryophyllales | C4 | 2 | TRY |
| *Taeniatherum caputmedusae* | Poaceae | Poales | C3 | 7 | BIEN |
| *Tragus australianus* | Poaceae | Poales | C4 | 32 | TRY |
| *Tragus berteronianus* | Poaceae | Poales | C4 | 2 | TRY |
| *Tribulus terrestris* | Zygophyllaceae | Zygophyllales | C4 | 2 | TRY |
| *Trifolium repens* | Fabaceae | Fabales | C3 | 2,11–13 | TRY |
| *Trigonella alba* | Fabaceae | Fabales | C3 | 2,34 | TRY |
| *Trigonella officinalis* | Fabaceae | Fabales | C3 | 2,3 | TRY |
| *Tripleurospermum inodorum* | Asteraceae | Asterales | C4 | 12,13 | TRY |
| *Triticum aestivum* | Poaceae | Poales | C3 | 20,36,52,61–65 | N.A. |
|  |  |  |  | 1,16,32,66 | TRY |
| *Triticum dicoccoides* | Poaceae | Poales | C3 | 25 | N.A. |
| *Triticum turgidum* | Poaceae | Poales | C3 | 16,66 | TRY |
|  |  |  |  | 25 | N.A. |
| *Urochloa brachyura* | Poaceae | Poales | C4 | 6 | TRY |
| *Veronica arvensis* | Plantaginaceae | Lamiales | C3 | 12,13 | TRY |
| *Vicia faba* | Fabaceae | Fabales | C3 | 1,16 | TRY |
|  |  |  |  | This study | N.A. |
| *Vicia narbonensis* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Vulpia bromoides* | Poaceae | Poales | C3 | 12,13 | TRY |
| *Vulpia microstachys* | Poaceae | Poales | C3 | 7 | BIEN |
| *Vulpia myuros* | Poaceae | Poales | C3 | 7 | BIEN |
| *Vulpia octoflora* | Poaceae | Poales | C3 | 10 | TRY |
| *Whiteochloa capillipes* | Poaceae | Poales | C4 | 6 | TRY |
| *Xanthium orientale* | Asteraceae | Asterales | C3 | 16 | TRY |
| *Xanthium strumarium* | Asteraceae | Asterales | C3 | 2,10,16,26 | TRY |
| *Zea mays* | Poaceae | Poales | C4 | 16,66 | TRY |
| *Zingeria biebersteiniana* | Poaceae | Poales | C3 | 6 | TRY |
| *Zornia glochidiata* | Fabaceae | Fabales | C3 | 67 | TRY |

(b) Stomatal conductance to water

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** | **Family** | **Order** | **Type** | **Reference** | **Database** |
| *Abelmoschus esculentus* | Malvaceae | Malvales | C3 | This study | N.A. |
| *Aegilops cylindrica* | Poaceae | Poales | C3 | 6 | TRY |
| *Aeluropus littoralis* | Poaceae | Poales | C4 | 6 | TRY |
| *Agrostis inaequiglumis* | Poaceae | Poales | C3 | 6 | TRY |
| *Agrostis lachnantha* | Poaceae | Poales | C3 | 6 | TRY |
| *Agrostis scabra* | Poaceae | Poales | C3 | 2 | TRY |
| *Alopecurus carolinianus* | Poaceae | Poales | C3 | 6 | TRY |
| *Alopecurus myosuroides* | Poaceae | Poales | C3 | 6 | TRY |
| *Alopecurus utriculatus* | Poaceae | Poales | C3 | 6 | TRY |
| *Amaranthus blitoides* | Amaranthaceae | Caryophyllales | C4 | 2,10 | TRY |
| *Amaranthus cruentus* | Amaranthaceae | Caryophyllales | C4 | This study | N.A. |
| *Amaranthus retroflexus* | Amaranthaceae | Caryophyllales | C4 | 2,10,16 | TRY |
| *Apera spica-venti* | Poaceae | Poales | C3 | 12,13 | TRY |
| *Arabidopsis thaliana* | Brassicaceae | Brassicales | C3 | 15,16 | TRY |
|  |  |  |  | 18,19,21,68,69 | N.A. |
| *Arachis hypogaea* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Arachis monticola* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Aristida oligantha* | Poaceae | Poales | C4 | 10 | TRY |
| *Avena fatua* | Poaceae | Poales | C3 | 12,13,22 | TRY |
| *Avena sativa* | Poaceae | Poales | C3 | This study | N.A. |
| *Avena sterilis* | Poaceae | Poales | C3 | This study | N.A. |
| *Axyris amaranthoides* | Amaranthaceae | Caryophyllales | C4 | 23 | TRY |
| *Beckmannia syzigachne* | Poaceae | Poales | C3 | 6 | TRY |
| *Beta vulgaris* | Amaranthaceae | Caryophyllales | C3 | 25,70 | N.A. |
|  |  |  |  | 2,16 | TRY |
| *Bidens cernua* | Asteraceae | Asterales | C3 | 26 | TRY |
| *Bidens frondosa* | Asteraceae | Asterales | C3 | 26 | TRY |
| *Borago officinalis* | Boraginaceae | Boraginales | C3 | This study | N.A. |
| *Bothriochloa pertusa* | Poaceae | Poales | C4 | 27 | China Plant Trait |
| *Brachiaria eruciformis* | Poaceae | Poales | C4 | 6 | TRY |
| *Brachiaria mollis* | Poaceae | Poales | C3 | 6 | TRY |
| *Brachiaria platyphylla* | Poaceae | Poales | C4 | 6 | TRY |
| *Brachiaria ruziziensis* | Poaceae | Poales | C4 | 6 | TRY |
| *Brassica napus* | Brassicaceae | Brassicales | C3 | 28,29,31,36 | N.A. |
|  |  |  |  | 32 | TRY |
| *Brassica oleracea* | Brassicaceae | Brassicales | C3 | 32 | TRY |
|  |  |  |  | 6,25 | N.A. |
|  |  |  |  | This study | N.A. |
| *Bromus alopecuros* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus carinatus* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus danthoniae* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus hordeaceus* | Poaceae | Poales | C3 | 12,13,71 | TRY |
| *Bromus intermedius* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus japonicus* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus lanceolatus* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus pectinatus* | Poaceae | Poales | C3 | 6 | TRY |
| *Bromus sterilis* | Poaceae | Poales | C3 | 12,13 | TRY |
| *Campanula americana* | Campanulaceae | Asterales | C3 | 34 | TRY |
| *Capsicum annuum* | Solanaceae | Solanales | C3 | 35,72 | N.A. |
|  |  |  |  | 16 | TRY |
| *Cenchrus echinatus* | Poaceae | Poales | C4 | 6 | TRY |
| *Centaurea cyanus* | Asteraceae | Asterales | C3 | 34 | TRY |
| *Cerastium glomeratum* | Caryophyllaceae | Caryophyllales | C3 | 13 | TRY |
| *Chamaecrista fasciculata* | Fabaceae | Fabales | C3 | 10 | TRY |
| *Chloris radiata* | Poaceae | Poales | C4 | 6 | TRY |
| *Chylismia claviformis* | Onagraceae | Myrtales | C3 | 16 | TRY |
| *Crassocephalum crepidioides* | Asteraceae | Asterales | C3 | 22 | TRY |
| *Crepis biennis* | Asteraceae | Asterales | C3 | 71 | TRY |
| *Crepis capillaris* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Cucumis sativus* | Cucurbitaceae | Cucurbitales | C3 | 36,73 | N.A. |
|  |  |  |  | 16 | TRY |
| *Cyperus diandrus* | Cyperaceae | Poales | C4 | 26 | TRY |
| *Cyperus flavidus* | Cyperaceae | Poales | C4 | 37 | TRY |
| *Cyperus reduncus* | Cyperaceae | Poales | C4 | 26 | TRY |
| *Dactyloctenium aegyptium* | Poaceae | Poales | C4 | 6 | TRY |
| *Dactyloctenium radulans* | Poaceae | Poales | C4 | 32 | TRY |
| *Danthoniopsis dinteri* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria bicornis* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria ciliaris* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria debilis* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria eriostachya* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria ischaemum* | Poaceae | Poales | C4 | 6,26 | TRY |
| *Digitaria setigera* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria ternata* | Poaceae | Poales | C4 | 6 | TRY |
| *Digitaria violascens* | Poaceae | Poales | C4 | 6 | TRY |
| *Diplotaxis ibicensis* | Brassicaceae | Brassicales | C3 | 70 | N.A. |
|  |  |  |  | 16 | TRY |
| *Echinaria capitata* | Poaceae | Poales | C3 | 6 | TRY |
| *Echinochloa muricata* | Poaceae | Poales | C4 | 6 | TRY |
| *Ehrharta longiflora* | Poaceae | Poales | C3 | 6 | TRY |
| *Eleocharis obtusa* | Cyperaceae | Poales | C3 | 26 | TRY |
| *Eleusine coracana* | Poaceae | Poales | C4 | 6 | TRY |
| *Eleusine indica* | Poaceae | Poales | C4 | 6,10 | TRY |
| *Eleusine tristachya* | Poaceae | Poales | C4 | 6 | TRY |
| *Enneapogon gracilis* | Poaceae | Poales | C4 | 6 | TRY |
| *Enneapogon lindleyanus* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis macilenta* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis minor* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis neesii* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis patentipilosa* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis pectinacea* | Poaceae | Poales | C4 | 6,10,26 | TRY |
| *Eragrostis pilosa* | Poaceae | Poales | C4 | 6 | TRY |
| *Eragrostis porosa* | Poaceae | Poales | C4 | 6 | TRY |
| *Eremopyrum triticeum* | Poaceae | Poales | C3 | 6 | TRY |
| *Erigeron annuus* | Asteraceae | Asterales | C3 | 10 | TRY |
| *Eriochloa contracta* | Poaceae | Poales | C3 | 6 | TRY |
| *Euphorbia nutans* | Euphorbiaceae | Malpighiales | C4 | 10 | TRY |
| *Festuca incurva* | Poaceae | Poales | C3 | 6 | TRY |
| *Gastridium ventricosum* | Poaceae | Poales | C3 | 6 | TRY |
| *Gentianella amarella* | Gentianaceae | Gentianales | C3 | 74 | TRY |
| *Glycine max* | Fabaceae | Fabales | C3 | 38,75 | N.A. |
|  |  |  |  | 16,76 | TRY |
| *Helianthus agrestis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus annuus* | Asteraceae | Asterales | C3 | 39 | BIEN |
|  |  |  |  | 25,35,40 | N.A. |
|  |  |  |  | 10,16 | TRY |
| *Helianthus argophyllus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus debilis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus neglectus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus praecox* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Hordeum pusillum* | Poaceae | Poales | C3 | 6,10 | TRY |
| *Hordeum vulgare* | Poaceae | Poales | C3 | 77 | N.A. |
| *Impatiens capensis* | Balsaminaceae | Ericales | C3 | 37 | TRY |
| *Impatiens noei* | Balsaminaceae | Ericales | C3 | 78 | N.A. |
| *Impatiens rubrostriata* | Balsaminaceae | Ericales | C3 | 22 | TRY |
| *Iseilema macratherum* | Poaceae | Poales | C4 | 6 | TRY |
| *Jacobaea vulgaris* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Kali collinum* | Amaranthaceae | Caryophyllales | C4 | 23 | TRY |
| *Lactuca canadensis* | Asteraceae | Asterales | C3 | 10 | TRY |
| *Lactuca ludoviciana* | Asteraceae | Asterales | C3 | 10 | TRY |
| *Lactuca sativa* | Asteraceae | Asterales | C3 | This study | N.A. |
| *Lactuca serriola* | Asteraceae | Asterales | C3 | This study | N.A. |
| *Lapsana communis* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Lepidium densiflorum* | Brassicaceae | Brassicales | C3 | 10 | TRY |
| *Leptochloa fusca* | Poaceae | Poales | C4 | 6 | TRY |
| *Lipandra polysperma* | Amaranthaceae | Caryophyllales | C3 | 26,34 | TRY |
| *Lolium canariense* | Poaceae | Poales | C3 | 6 | TRY |
| *Lolium persicum* | Poaceae | Poales | C3 | 6 | TRY |
| *Lolium rigidum* | Poaceae | Poales | C3 | 6 | TRY |
| *Lotus corniculatus* | Fabaceae | Fabales | C3 | 12,13,71 | TRY |
| *Matricaria chamomilla* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Melanocenchris abyssinica* | Poaceae | Poales | C3 | 6 | TRY |
| *Mentha spicata* | Lamiaceae | Lamiales | C3 | 79 | N.A. |
|  |  |  |  | 16 | TRY |
| *Mercurialis annua* | Euphorbiaceae | Malpighiales | C3 | 78 | N.A. |
| *Micropyrum tenellum* | Poaceae | Poales | C3 | 80 | N.A. |
| *Microstegium vimineum* | Poaceae | Poales | C4 | 6,37 | TRY |
| *Muhlenbergia microsperma* | Poaceae | Poales | C4 | 6 | TRY |
| *Myagrum perfoliatum* | Brassicaceae | Brassicales | C3 | 34 | TRY |
| *Nicotiana plumbaginifolia* | Solanaceae | Solanales | C3 | 81 | N.A. |
| *Nigella damascena* | Ranunculaceae | Ranunculales | C3 | 34 | TRY |
| *Ocimum basilicum* | Lamiaceae | Lamiales | C3 | 16 | TRY |
|  |  |  |  | 35 | N.A. |
| *Ophiuros exaltatus* | Poaceae | Poales | C4 | 6 | TRY |
| *Oryza barthii* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza brachyantha* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza latifolia* | Poaceae | Poales | C3 | 16 | TRY |
|  |  |  |  | 41 | N.A. |
| *Oryza minuta* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza officinalis* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza punctata* | Poaceae | Poales | C3 | 16 | TRY |
| *Oryza punctata* | Poaceae | Poales | C3 | 41 | N.A. |
| *Oryza rufipogon* | Poaceae | Poales | C3 | 16 | TRY |
|  |  |  |  | 41,82 | N.A. |
| *Oryza sativa* | Poaceae | Poales | C3 | 36,40–43,46,48,50,51,83,84 | N.A. |
|  |  |  |  | 16 | TRY |
| *Oxybasis glauca* | Amaranthaceae | Caryophyllales | C4 | 23 | TRY |
| *Panicum bisulcatum* | Poaceae | Poales | C3 | 6 | TRY |
| *Panicum capillare* | Poaceae | Poales | C4 | 2,10,26 | TRY |
| *Panicum dichotomiflorum* | Poaceae | Poales | C4 | 6 | TRY |
| *Panicum laevinode* | Poaceae | Poales | C4 | 6 | TRY |
| *Panicum schinzii* | Poaceae | Poales | C4 | 6 | TRY |
| *Papaver dubium* | Papaveraceae | Ranunculales | C3 | 12,13 | TRY |
| *Pennisetum glaucum* | Poaceae | Poales | C4 | This study | N.A. |
|  |  |  |  | 10 | TRY |
| *Perotis patens* | Poaceae | Poales | C4 | 6 | TRY |
| *Persicaria bungeana* | Polygonaceae | Caryophyllales | C3 | 26 | TRY |
| *Persicaria lapathifolia* | Polygonaceae | Caryophyllales | C3 | 26 | TRY |
| *Phalaris canariensis* | Poaceae | Poales | C3 | 6 | TRY |
| *Phaseolus vulgaris* | Fabaceae | Fabales | C3 | 35,55,56,85 | N.A. |
|  |  |  |  | 16,54 | TRY |
| *Phleum boissieri* | Poaceae | Poales | C3 | 6 | TRY |
| *Phoebanthus tenuifolius* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Pisum sativum* | Fabaceae | Fabales | C3 | 25 | N.A. |
| *Plantago major* | Plantaginaceae | Lamiales | C3 | 12,13,15,26 | TRY |
| *Poa annua* | Poaceae | Poales | C3 | 13 | TRY |
| *Polypogon monspeliensis* | Poaceae | Poales | C3 | 6 | TRY |
| *Raphanus raphanistrum* | Brassicaceae | Brassicales | C3 | 12,13 | TRY |
| *Rostraria cristata* | Poaceae | Poales | C3 | 2,23 | TRY |
| *Rudbeckia hirta* | Asteraceae | Asterales | C3 | 10 | TRY |
| *Rumex dentatus* | Polygonaceae | Caryophyllales | C3 | 86 | N.A. |
| *Secale cereale* | Poaceae | Poales | C3 | 16 | TRY |
| *Sesamum indicum* | Pedaliaceae | Lamiales | C3 | This study | N.A. |
| *Setaria plicata* | Poaceae | Poales | C4 | 27 | China Plant Trait |
| *Setaria viridis* | Poaceae | Poales | C4 | 6 | TRY |
| *Sigesbeckia orientalis* | Asteraceae | Asterales | C3 | 58 | AusTraits |
| *Solanum lycopersicum* | Solanaceae | Solanales | C3 | 25,59,87 | N.A. |
|  |  |  |  | 60 | BIEN |
|  |  |  |  | 16 | TRY |
|  |  |  |  | This study | N.A. |
| *Solanum pimpinellifolium* | Solanaceae | Solanales | C3 | 25 | N.A. |
|  |  |  |  | 60 | BIEN |
|  |  |  |  | This study | N.A. |
| *Solanum rostratum* | Solanaceae | Solanales | C3 | 10 | TRY |
| *Sonchus asper* | Asteraceae | Asterales | C3 | 12,13 | TRY |
| *Sorghum bicolor* | Poaceae | Poales | C4 | 16 | TRY |
| *Sphenopholis obtusata* | Poaceae | Poales | C3 | 6 | TRY |
| *Spinacia oleracea* | Amaranthaceae | Caryophyllales | C3 | 16 | TRY |
|  |  |  |  | 35 | N.A. |
| *Tragus australianus* | Poaceae | Poales | C4 | 32 | TRY |
| *Trifolium campestre* | Fabaceae | Fabales | C3 | 71 | TRY |
| *Trifolium repens* | Fabaceae | Fabales | C3 | 12,13,71 | TRY |
| *Trigonella alba* | Fabaceae | Fabales | C3 | 34 | TRY |
| *Tripleurospermum inodorum* | Asteraceae | Asterales | C4 | 12,13 | TRY |
| *Triticum aestivum* | Poaceae | Poales | C3 | 36,61,63–65,85 | N.A. |
|  |  |  |  | 32 | TRY |
| *Triticum dicoccoides* | Poaceae | Poales | C3 | 25 | N.A. |
| *Triticum turgidum* | Poaceae | Poales | C3 | 25,88 | N.A. |
|  |  |  |  | 16 | TRY |
| *Urochloa brachyura* | Poaceae | Poales | C4 | 6 | TRY |
| *Veronica arvensis* | Plantaginaceae | Lamiales | C3 | 12,13 | TRY |
| *Vicia faba* | Fabaceae | Fabales | C3 | 80 | N.A. |
|  |  |  |  | 16 | TRY |
|  |  |  |  | This study | N.A. |
| *Vicia narbonensis* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Vulpia bromoides* | Poaceae | Poales | C3 | 12,13 | TRY |
| *Vulpia octoflora* | Poaceae | Poales | C3 | 10 | TRY |
| *Whiteochloa capillipes* | Poaceae | Poales | C4 | 6 | TRY |
| *Xanthium orientale* | Asteraceae | Asterales | C3 | 16 | TRY |
| *Xanthium strumarium* | Asteraceae | Asterales | C3 | 80 | N.A. |
|  |  |  |  | 10,16,26 | TRY |
| *Zea mays* | Poaceae | Poales | C4 | 16,76 | TRY |
| *Zingeria biebersteiniana* | Poaceae | Poales | C3 | 6 | TRY |
| *Zornia glochidiata* | Fabaceae | Fabales | C3 | 67 | TRY |

(c) Mass-based leaf N concentration

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** | **Family** | **Order** | **Type** | **Reference** | **Database** |
| *Abelmoschus esculentus* | Malvaceae | Malvales | C3 | 89 | N.A. |
|  |  |  |  | This study | N.A. |
| *Abutilon theophrasti* | Malvaceae | Malvales | C3 | 2,90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Acalypha virginica* | Euphorbiaceae | Malpighiales | C3 | 3,90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Aconitum gymnandrum* | Ranunculaceae | Ranunculales | C3 | 4,5 | BIEN |
| *Adonis dentata* | Ranunculaceae | Ranunculales | C3 | 89 | N.A. |
|  |  |  |  | 91 | TRY |
| *Aegilops cylindrica* | Poaceae | Poales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Aegilops geniculata* | Poaceae | Poales | C3 | 2 | TRY |
|  |  |  |  | 89 | N.A. |
| *Aegilops neglecta* | Poaceae | Poales | C3 | 1,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Aegilops speltoides* | Poaceae | Poales | C3 | 93 | N.A. |
| *Aegilops triuncialis* | Poaceae | Poales | C3 | 94 | TRY |
|  |  |  |  | 7 | BIEN |
| *Aeluropus littoralis* | Poaceae | Poales | C4 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Agriophyllum squarrosum* | Amaranthaceae | Caryophyllales | C4 | 22,95 | TRY |
| *Agrostemma githago* | Caryophyllaceae | Caryophyllales | C3 | 89 | N.A. |
| *Agrostis pourretii* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Agrostis scabra* | Poaceae | Poales | C3 | 2,96 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Aira caryophyllea* | Poaceae | Poales | C3 | 89 | N.A. |
|  |  |  |  | 7 | BIEN |
| *Alloteropsis cimicina* | Poaceae | Poales | C4 | 93 | N.A. |
| *Alopecurus carolinianus* | Poaceae | Poales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Alopecurus utriculatus* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Alysicarpus schomburgkii* | Fabaceae | Fabales | C3 | 98 | AusTraits |
| *Amaranthus blitoides* | Amaranthaceae | Caryophyllales | C4 | 2 | TRY |
|  |  |  |  | 89 | N.A. |
| *Amaranthus cruentus* | Amaranthaceae | Caryophyllales | C4 | 89 | N.A. |
|  |  |  |  | This study | N.A. |
| *Amaranthus deflexus* | Amaranthaceae | Caryophyllales | C4 | 89 | N.A. |
| *Amaranthus hybridus* | Amaranthaceae | Caryophyllales | C4 | 89,99 | N.A. |
| *Amaranthus powellii* | Amaranthaceae | Caryophyllales | C4 | 89 | N.A. |
| *Amaranthus retroflexus* | Amaranthaceae | Caryophyllales | C4 | 4 | BIEN |
|  |  |  |  | 1,2 | TRY |
|  |  |  |  | 89 | N.A. |
| *Amaranthus tricolor* | Amaranthaceae | Caryophyllales | C4 | 89 | N.A. |
| *Amaranthus tuberculatus* | Amaranthaceae | Caryophyllales | C4 | 90 | TRY |
| *Amsinckia douglasiana* | Boraginaceae | Boraginales | C3 | 94 | TRY |
| *Anagallis arvensis* | Primulaceae | Ericales | C3 | 89 | N.A. |
| *Androsace septentrionalis* | Primulaceae | Ericales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Anthemis arvensis* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Anthemis cotula* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Anthyllis vulneraria* | Fabaceae | Fabales | C3 | 101–104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Aphanes arvensis* | Rosaceae | Rosales | C3 | 89 | N.A. |
| *Arabidopsis thaliana* | Brassicaceae | Brassicales | C3 | 14,15,91 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 18,21,89 | N.A. |
| *Arachis hypogaea* | Fabaceae | Fabales | C3 | 4 | BIEN |
|  |  |  |  | 91,104 | TRY |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | This study | N.A. |
| *Arachis monticola* | Fabaceae | Fabales | C3 | 89,99 | N.A. |
|  |  |  |  | This study | N.A. |
| *Arctotheca calendula* | Asteraceae | Asterales | C3 | 105 | AusTraits |
| *Arenaria serpyllifolia* | Caryophyllaceae | Caryophyllales | C3 | 89 | N.A. |
|  |  |  |  | 106 | TRY |
| *Argemone polyanthemos* | Papaveraceae | Ranunculales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Aristida funiculata* | Poaceae | Poales | C4 | 93 | N.A. |
| *Aristida oligantha* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Artemisia apiacea* | Asteraceae | Asterales | C3 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Artemisia scoparia* | Asteraceae | Asterales | C3 | 4,107 | BIEN |
|  |  |  |  | 22,91,95,106 | TRY |
| *Aster subulatus* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Astragalus pelecinus* | Fabaceae | Fabales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Atriplex hortensis* | Amaranthaceae | Caryophyllales | C4 | 16 | TRY |
| *Atriplex laevis* | Amaranthaceae | Caryophyllales | C4 | 91 | TRY |
|  |  |  |  | 4 | BIEN |
| *Atriplex littoralis* | Amaranthaceae | Caryophyllales | C4 | 89 | N.A. |
| *Atriplex patens* | Amaranthaceae | Caryophyllales | C3 | 4 | BIEN |
| *Atriplex sibirica* | Amaranthaceae | Caryophyllales | C4 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Avena barbata* | Poaceae | Poales | C3 | 1,92,108 | TRY |
|  |  |  |  | 105 | AusTraits |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 7 | BIEN |
| *Avena fatua* | Poaceae | Poales | C3 | 22 | TRY |
|  |  |  |  | 4,7,97 | BIEN |
|  |  |  |  | 89,93 | N.A. |
| *Avena sativa* | Poaceae | Poales | C3 | 89,93 | N.A. |
|  |  |  |  | 109,110 | TRY |
|  |  |  |  | This study | N.A. |
|  |  |  |  | 7 | BIEN |
| *Avena sterilis* | Poaceae | Poales | C3 | 89,99 | N.A. |
|  |  |  |  | 92 | TRY |
|  |  |  |  | This study | N.A. |
| *Avena strigosa* | Poaceae | Poales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Axyris amaranthoides* | Amaranthaceae | Caryophyllales | C4 | 22,23,111 | TRY |
| *Beta vulgaris* | Amaranthaceae | Caryophyllales | C3 | 89,99 | N.A. |
|  |  |  |  | 2 | TRY |
| *Bidens bipinnata* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 98 | AusTraits |
| *Bidens cernua* | Asteraceae | Asterales | C3 | 89 | N.A. |
|  |  |  |  | 26 | TRY |
| *Bidens frondosa* | Asteraceae | Asterales | C3 | 89 | N.A. |
|  |  |  |  | 26 | TRY |
| *Bidens tinctoria* | Asteraceae | Asterales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Bidens tripartita* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Borago officinalis* | Boraginaceae | Boraginales | C3 | 89 | N.A. |
|  |  |  |  | This study | N.A. |
| *Bouteloua aristidoides* | Poaceae | Poales | C4 | 94 | TRY |
| *Brachiaria deflexa* | Poaceae | Poales | C4 | 96 | TRY |
| *Brachiaria gilesii* | Poaceae | Poales | C4 | 112 | AusTraits |
| *Brachiaria lata* | Poaceae | Poales | C4 | 93 | N.A. |
| *Brachiaria plantaginea* | Poaceae | Poales | C4 | 96 | TRY |
| *Brachiaria pubigera* | Poaceae | Poales | C4 | 96,113 | TRY |
| *Brachyachne convergens* | Poaceae | Poales | C4 | 114 | AusTraits |
| *Brachypodium distachyon* | Poaceae | Poales | C3 | 1,2,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Brachyscome iberidifolia* | Asteraceae | Asterales | C3 | Firn 2019 | AusTraits |
| *Brassica carinata* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Brassica juncea* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Brassica napus* | Brassicaceae | Brassicales | C3 | 28,31,89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Brassica oleracea* | Brassicaceae | Brassicales | C3 | 89,99 | N.A. |
|  |  |  |  | This study | N.A. |
| *Brassica rapa* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Brassica tournefortii* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
| *Briza maxima* | Poaceae | Poales | C3 | 33 | AusTraits |
|  |  |  |  | 91,104 | TRY |
|  |  |  |  | 89,93 | N.A. |
|  |  |  |  | 7 | BIEN |
| *Bromus carinatus* | Poaceae | Poales | C3 | 7 | BIEN |
| *Bromus diandrus* | Poaceae | Poales | C3 | 7 | BIEN |
| *Bromus hordeaceus* | Poaceae | Poales | C3 | 1,71,92,94,96,113 | TRY |
|  |  |  |  | 7,97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Bromus lanceolatus* | Poaceae | Poales | C3 | 1,2,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Bromus madritensis* | Poaceae | Poales | C3 | 1,92,94,106,108 | TRY |
|  |  |  |  | 89 | N.A. |
| *Bromus pumilio* | Poaceae | Poales | C3 | 93 | N.A. |
| *Bromus rigidus* | Poaceae | Poales | C3 | 89 | N.A. |
| *Bromus rubens* | Poaceae | Poales | C3 | 105 | AusTraits |
| *Bromus sterilis* | Poaceae | Poales | C3 | 91,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Bromus tectorum* | Poaceae | Poales | C3 | 90,92,100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Buglossoides arvensis* | Boraginaceae | Boraginales | C3 | 89 | N.A. |
| *Calystegia sepium* | Convolvulaceae | Solanales | C3 | 89 | N.A. |
| *Calystegia soldanella* | Convolvulaceae | Solanales | C3 | 89 | N.A. |
| *Calystegia sylvatica* | Convolvulaceae | Solanales | C3 | 89 | N.A. |
| *Camelina microcarpa* | Brassicaceae | Brassicales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Camelina sativa* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Campanula americana* | Campanulaceae | Asterales | C3 | 90,115 | TRY |
| *Capsicum annuum* | Solanaceae | Solanales | C3 | 89,99,116 | N.A. |
| *Carduus pycnocephalus* | Asteraceae | Asterales | C3 | 91,104,117 | TRY |
|  |  |  |  | 89 | N.A. |
| *Carthamus glaucus* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Carthamus persicus* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Carthamus tinctorius* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Catapodium rigidum* | Poaceae | Poales | C3 | 1,91 | TRY |
|  |  |  |  | 89 | N.A. |
| *Cenchrus brownii* | Poaceae | Poales | C4 | 93 | N.A. |
| *Cenchrus echinatus* | Poaceae | Poales | C4 | 93 | N.A. |
| *Cenchrus longispinus* | Poaceae | Poales | C3 | 90 | TRY |
| *Cenchrus pilosus* | Poaceae | Poales | C4 | 93 | N.A. |
| *Centaurea cyanus* | Asteraceae | Asterales | C3 | 3,115 | TRY |
|  |  |  |  | 89 | N.A. |
| *Centaurea solstitialis* | Asteraceae | Asterales | C3 | 117 | TRY |
| *Cerastium glomeratum* | Caryophyllaceae | Caryophyllales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Cerastium semidecandrum* | Caryophyllaceae | Caryophyllales | C3 | 89 | N.A. |
| *Chaerophyllum procumbens* | Apiaceae | Apiales | C3 | 90 | TRY |
| *Chamaecrista fasciculata* | Fabaceae | Fabales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Chamaecrista mimosoides* | Fabaceae | Fabales | C3 | 96 | TRY |
| *Chenopodiastrum murale* | Amaranthaceae | Caryophyllales | C3 | 89 | N.A. |
| *Chenopodiastrum simplex* | Amaranthaceae | Caryophyllales | C3 | 90 | TRY |
| *Chenopodium acuminatum* | Amaranthaceae | Caryophyllales | C3 | 4 | BIEN |
|  |  |  |  | 22,91,95 | TRY |
| *Chenopodium fremontii* | Amaranthaceae | Caryophyllales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Chenopodium hircinum* | Amaranthaceae | Caryophyllales | C3 | 89 | N.A. |
| *Chenopodium vulvaria* | Amaranthaceae | Caryophyllales | C3 | 22,95,100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Chloris virgata* | Poaceae | Poales | C4 | 22,91,95,96 | TRY |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Chylismia brevipes* | Onagraceae | Myrtales | C3 | 2 | TRY |
| *Chylismia claviformis* | Onagraceae | Myrtales | C3 | 2 | TRY |
| *Cicer arietinum* | Fabaceae | Fabales | C3 | 89 | N.A. |
| *Cicer reticulatum* | Fabaceae | Fabales | C3 | 89 | N.A. |
| *Citrullus lanatus* | Cucurbitaceae | Cucurbitales | C3 | 89 | N.A. |
| *Cladanthus mixtus* | Asteraceae | Asterales | C3 | 92 | TRY |
| *Coix lacryma-jobi* | Poaceae | Poales | C4 | 93 | N.A. |
| *Coldenia procumbens* | Boraginaceae | Boraginales | C3 | 98 | AusTraits |
| *Commelina communis* | Commelinaceae | Commelinales | C3 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Conium maculatum* | Apiaceae | Apiales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Conobea multifida* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Corchorus aestuans* | Malvaceae | Malvales | C3 | 89 | N.A. |
| *Corispermum heptapotamicum* | Amaranthaceae | Caryophyllales | C4 | 22 | TRY |
| *Corispermum hyssopifolium* | Amaranthaceae | Caryophyllales | C3 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Corispermum mongolicum* | Amaranthaceae | Caryophyllales | C3 | 22 | TRY |
| *Corispermum orientale* | Amaranthaceae | Caryophyllales | C3 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Cosmos parviflorus* | Asteraceae | Asterales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Crassocephalum crepidioides* | Asteraceae | Asterales | C3 | 22 | TRY |
| *Crepis biennis* | Asteraceae | Asterales | C3 | 71,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Crepis capillaris* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Crepis foetida* | Asteraceae | Asterales | C3 | 92,94,106,108 | TRY |
|  |  |  |  | 89 | N.A. |
| *Crepis nicaeensis* | Asteraceae | Asterales | C3 | 95 | TRY |
| *Crepis sancta* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Crepis vesicaria* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Croton capitatus* | Euphorbiaceae | Malpighiales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Croton monanthogynus* | Euphorbiaceae | Malpighiales | C3 | 90 | TRY |
| *Cucumis sativus* | Cucurbitaceae | Cucurbitales | C3 | 89 | N.A. |
| *Cutandia dichotoma* | Poaceae | Poales | C3 | 91 | TRY |
| *Cynosurus echinatus* | Poaceae | Poales | C3 | 7 | BIEN |
| *Cyperus acuminatus* | Cyperaceae | Poales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Cyperus aquatilis* | Cyperaceae | Poales | C3 | 98 | AusTraits |
| *Cyperus diandrus* | Cyperaceae | Poales | C4 | 26 | TRY |
| *Cyperus flavidus* | Cyperaceae | Poales | C4 | 89 | N.A. |
|  |  |  |  | 37 | TRY |
| *Cyperus reduncus* | Cyperaceae | Poales | C4 | 26 | TRY |
| *Dactyloctenium aegyptium* | Poaceae | Poales | C4 | 96 | TRY |
|  |  |  |  | 89,93 | N.A. |
| *Dactyloctenium giganteum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Dactyloctenium radulans* | Poaceae | Poales | C4 | 92 | AusTraits |
|  |  |  |  | 93 | N.A. |
| *Dalea polygonoides* | Fabaceae | Fabales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Danthoniopsis dinteri* | Poaceae | Poales | C4 | 93 | N.A. |
| *Dasypyrum villosum* | Poaceae | Poales | C3 | 93 | N.A. |
| *Delphinium consolida* | Ranunculaceae | Ranunculales | C3 | 89 | N.A. |
| *Descurainia sophia* | Brassicaceae | Brassicales | C3 | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 91 | TRY |
| *Descurainia titicacensis* | Brassicaceae | Brassicales | C3 | 104 | TRY |
| *Desmodium brownii* | Fabaceae | Fabales | C3 | 98 | AusTraits |
| *Diarthron linifolium* | Thymelaeaceae | Malvales | C3 | 4 | BIEN |
| *Digitaria bicornis* | Poaceae | Poales | C4 | 96,113 | TRY |
| *Digitaria ciliaris* | Poaceae | Poales | C4 | 93 | N.A. |
| *Digitaria ischaemum* | Poaceae | Poales | C4 | 89 | N.A. |
|  |  |  |  | 3,26 | TRY |
| *Digitaria sanguinalis* | Poaceae | Poales | C4 | 90,96,118 | TRY |
|  |  |  |  | 89,93 | N.A. |
| *Digitaria setigera* | Poaceae | Poales | C4 | 93 | N.A. |
| *Digitaria velutina* | Poaceae | Poales | C4 | 96 | TRY |
| *Diheteropogon hagerupii* | Poaceae | Poales | C4 | 93 | N.A. |
| *Dontostemon micranthus* | Brassicaceae | Brassicales | C3 | 23 | TRY |
|  |  |  |  | 107 | BIEN |
| *Dracocephalum moldavica* | Lamiaceae | Lamiales | C3 | 119 | BIEN |
| *Dysphania aristata* | Amaranthaceae | Caryophyllales | C3 | 22,95 | TRY |
| *Dysphania kalpari* | Amaranthaceae | Caryophyllales | C3 | 112 | AusTraits |
| *Echinochloa cruspavonis* | Poaceae | Poales | C4 | 93 | N.A. |
| *Echinochloa frumentacea* | Poaceae | Poales | C4 | 89,93 | N.A. |
| *Echinochloa muricata* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 93 | N.A. |
| *Echinochloa oryzoides* | Poaceae | Poales | C4 | 93 | N.A. |
| *Echinochloa stagnina* | Poaceae | Poales | C4 | 93 | N.A. |
| *Echium plantagineum* | Boraginaceae | Boraginales | C3 | 89 | N.A. |
|  |  |  |  | 16,92 | TRY |
| *Ectrosia leporina* | Poaceae | Poales | C4 | 98 | AusTraits |
| *Eleocharis obtusa* | Cyperaceae | Poales | C3 | 89 | N.A. |
|  |  |  |  | 26 | TRY |
| *Eleusine coracana* | Poaceae | Poales | C4 | 93 | N.A. |
| *Eleusine indica* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 89,93 | N.A. |
| *Ellisia nyctelea* | Boraginaceae | Boraginales | C3 | 90 | TRY |
| *Enneapogon polyphyllus* | Poaceae | Poales | C4 | 96,113 | TRY |
|  |  |  |  | 112 | AusTraits |
|  |  |  |  | 89 | N.A. |
| *Enteropogon prieurii* | Poaceae | Poales | C4 | 93 | N.A. |
| *Epaltes australis* | Asteraceae | Asterales | C3 | 105 | AusTraits |
| *Eragrostis cilianensis* | Poaceae | Poales | C4 | 89,93 | N.A. |
|  |  |  |  | 22,90,95 | TRY |
|  |  |  |  | 4 | BIEN |
| *Eragrostis cummingii* | Poaceae | Poales | C4 | 96,113 | TRY |
| *Eragrostis mexicana* | Poaceae | Poales | C4 | 100 | TRY |
|  |  |  |  | 89,93 | N.A. |
| *Eragrostis minor* | Poaceae | Poales | C4 | 22,95 | TRY |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 4 | BIEN |
| *Eragrostis pectinacea* | Poaceae | Poales | C4 | 89,93 | N.A. |
|  |  |  |  | 26,90 | TRY |
| *Eragrostis pilosa* | Poaceae | Poales | C4 | 89,93 | N.A. |
| *Eragrostis tef* | Poaceae | Poales | C4 | 89 | N.A. |
| *Eragrostis unioloides* | Poaceae | Poales | C4 | 93 | N.A. |
| *Eremopyrum triticeum* | Poaceae | Poales | C3 | 91 | TRY |
|  |  |  |  | 93 | N.A. |
| *Eriachne aristidea* | Poaceae | Poales | C4 | 96,113 | TRY |
|  |  |  |  | 93 | N.A. |
| *Eriachne avenacea* | Poaceae | Poales | C4 | 98 | AusTraits |
| *Eriachne burkittii* | Poaceae | Poales | C4 | 98 | AusTraits |
| *Eriachne ciliata* | Poaceae | Poales | C4 | 96,113 | TRY |
| *Erigeron annuus* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Erigeron floribundus* | Asteraceae | Asterales | C3 | 92,94,108 | TRY |
|  |  |  |  | 89 | N.A. |
| *Erigeron philadelphicus* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Erigeron strigosus* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Eriochloa contracta* | Poaceae | Poales | C3 | 90 | TRY |
| *Eriogonum pharnaceoides* | Polygonaceae | Caryophyllales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Erodium botrys* | Geraniaceae | Geraniales | C3 | 94,104 | TRY |
|  |  |  |  | 105 | AusTraits |
|  |  |  |  | 89 | N.A. |
| *Erodium ciconium* | Geraniaceae | Geraniales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Eruca vesicaria* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
|  |  |  |  | 110,120 | TRY |
| *Erythranthe glabrata* | Phrymaceae | Lamiales | C3 | 90 | TRY |
| *Euclidium syriacum* | Brassicaceae | Brassicales | C3 | 91 | TRY |
| *Euphorbia falcata* | Euphorbiaceae | Malpighiales | C3 | 89 | N.A. |
| *Euphorbia glyptosperma* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
| *Euphorbia helioscopia* | Euphorbiaceae | Malpighiales | C3 | 89 | N.A. |
|  |  |  |  | 91,104 | TRY |
| *Euphorbia humifusa* | Euphorbiaceae | Malpighiales | C4 | 22 | TRY |
| *Euphorbia maculata* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Euphorbia missurica* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
| *Euphorbia nutans* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Euphorbia peplus* | Euphorbiaceae | Malpighiales | C4 | 89 | N.A. |
| *Euphorbia serpyllifolia* | Euphorbiaceae | Malpighiales | C4 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Euphorbia spathulata* | Euphorbiaceae | Malpighiales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Fagopyrum esculentum* | Polygonaceae | Caryophyllales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Fagopyrum homotropicum* | Polygonaceae | Caryophyllales | C3 | 89 | N.A. |
| *Filago desertorum* | Asteraceae | Asterales | C3 | 120 | TRY |
|  |  |  |  | 89 | N.A. |
| *Filago gallica* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Galactites tomentosa* | Asteraceae | Asterales | C3 | 92 | TRY |
| *Galeopsis ladanum* | Lamiaceae | Lamiales | C3 | 104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Galeopsis segetum* | Lamiaceae | Lamiales | C3 | 89 | N.A. |
| *Galeopsis speciosa* | Lamiaceae | Lamiales | C3 | 104,121 | TRY |
|  |  |  |  | 89 | N.A. |
| *Gentiana parvula* | Gentianaceae | Gentianales | C3 | 122 | BIEN |
| *Gentianella amarella* | Gentianaceae | Gentianales | C3 | 89 | N.A. |
|  |  |  |  | 74,91 | TRY |
| *Gentianopsis paludosa* | Gentianaceae | Gentianales | C3 | 122 | BIEN |
| *Geranium carolinianum* | Geraniaceae | Geraniales | C3 | 90 | TRY |
|  |  |  | C3 | 89 | N.A. |
| *Glycine max* | Fabaceae | Fabales | C3 | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 1,76 | TRY |
| *Gnaphalium affine* | Asteraceae | Asterales | C3 | 2 | TRY |
|  |  |  |  | 4 | BIEN |
| *Gnaphalium luteoalbum* | Asteraceae | Asterales | C3 | 5 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Grubovia dasyphylla* | Amaranthaceae | Caryophyllales | C4 | 22,95 | TRY |
| *Guizotia abyssinica* | Asteraceae | Asterales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Gutierrezia dracunculoides* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Halenia elliptica* | Gentianaceae | Gentianales | C3 | 122 | BIEN |
| *Hedeoma hispida* | Lamiaceae | Lamiales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Helianthus agrestis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus annuus* | Asteraceae | Asterales | C3 | 1,90,96,106,110 | TRY |
|  |  |  |  | 89,99 | N.A. |
|  |  |  |  | 39 | BIEN |
| *Helianthus argophyllus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus debilis* | Asteraceae | Asterales | C3 | 39 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Helianthus neglectus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus praecox* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Hibiscus trionum* | Malvaceae | Malvales | C3 | 90,91 | TRY |
|  |  |  | C3 | 4 | BIEN |
|  |  |  | C3 | 89 | N.A. |
| *Hordeum murinum* | Poaceae | Poales | C3 | 1 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Hordeum pusillum* | Poaceae | Poales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Hordeum spontaneum* | Poaceae | Poales | C3 | 93,99 | N.A. |
| *Hordeum vulgare* | Poaceae | Poales | C3 | 89,93 | N.A. |
| *Hyparrhenia confinis* | Poaceae | Poales | C4 | 96 | TRY |
| *Hypecoum leptocarpum* | Papaveraceae | Ranunculales | C3 | 122 | BIEN |
| *Hypericum gramineum* | Hypericaceae | Malpighiales | C3 | 123 | AusTraits |
| *Hypochaeris glabra* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Ifloga spicata* | Asteraceae | Asterales | C3 | 89 | N.A. |
|  |  |  |  | 91 | TRY |
| *Impatiens balfourii* | Balsaminaceae | Ericales | C3 | 89 | N.A. |
| *Impatiens capensis* | Balsaminaceae | Ericales | C3 | 89 | N.A. |
|  |  |  |  | 37,91 | TRY |
| *Impatiens furcillata* | Balsaminaceae | Ericales | C3 | 22,95 | TRY |
| *Impatiens noli-tangere* | Balsaminaceae | Ericales | C3 | 89 | N.A. |
| *Impatiens pallida* | Balsaminaceae | Ericales | C3 | 89 | N.A. |
|  |  |  |  | 91 | TRY |
| *Impatiens rubrostriata* | Balsaminaceae | Ericales | C3 | 22 | TRY |
| *Incarvillea sinensis* | Bignoniaceae | Lamiales | C3 | 119 | BIEN |
| *Ischaemum rugosum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Iseilema membranaceum* | Poaceae | Poales | C4 | 124 | AusTraits |
| *Iva annua* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Ixeridium gracile* | Asteraceae | Asterales | C3 | 22 | TRY |
| *Ixeris chinensis* | Asteraceae | Asterales | C3 | 95 | TRY |
| *Ixeris polycephala* | Asteraceae | Asterales | C3 | 119 | BIEN |
| *Jacobaea vulgaris* | Asteraceae | Asterales | C3 | 92,104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Kali collinum* | Amaranthaceae | Caryophyllales | C4 | 22,23,91,95 | TRY |
|  |  |  | C4 | 4,119,125 | BIEN |
| *Kalimeris altaica* | Asteraceae | Asterales | C3 | 4,119 | BIEN |
|  |  |  |  | 22,91,95 | TRY |
| *Kickxia spuria* | Plantaginaceae | Lamiales | C3 | 89 | N.A. |
| *Koelpinia linearis* | Asteraceae | Asterales | C3 | 120 | TRY |
|  |  |  |  | 89 | N.A. |
| *Krigia caespitosa* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Kummerowia striata* | Fabaceae | Fabales | C3 | 89 | N.A. |
|  |  |  |  | 22,95 | TRY |
| *Lactuca canadensis* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Lactuca ludoviciana* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Lactuca saligna* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lactuca sativa* | Asteraceae | Asterales | C3 | 89 | N.A. |
|  |  |  |  | This study | N.A. |
| *Lactuca serriola* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 89,99 | N.A. |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | This study | N.A. |
| *Laennecia schiedeana* | Asteraceae | Asterales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lagurus ovatus* | Poaceae | Poales | C3 | 91,104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lamium amplexicaule* | Lamiaceae | Lamiales | C3 | 89 | N.A. |
| *Lamium purpureum* | Lamiaceae | Lamiales | C3 | 89 | N.A. |
| *Laportea canadensis* | Urticaceae | Rosales | C3 | 90,91 | TRY |
| *Lappula marginata* | Boraginaceae | Boraginales | C3 | 91 | TRY |
|  |  |  |  | 4 | BIEN |
| *Lappula semiglabra* | Boraginaceae | Boraginales | C3 | 4 | BIEN |
| *Lapsana communis* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Lapsanastrum humile* | Asteraceae | Asterales | C3 | 126 | TRY |
| *Lathyrus cicera* | Fabaceae | Fabales | C3 | 89 | N.A. |
| *Lathyrus hirsutus* | Fabaceae | Fabales | C3 | 89 | N.A. |
| *Lathyrus sativus* | Fabaceae | Fabales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Legousia speculum-veneris* | Campanulaceae | Asterales | C3 | 89 | N.A. |
| *Lens culinaris* | Fabaceae | Fabales | C3 | 89 | N.A. |
| *Leonurus sibiricus* | Lamiaceae | Lamiales | C3 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Lepidium densiflorum* | Brassicaceae | Brassicales | C3 | 90,96,100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lepidium ruderale* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
| *Lepidium sativum* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
| *Leptochloa fusca* | Poaceae | Poales | C4 | 90,96,113 | TRY |
|  |  |  |  | 89 | N.A. |
| *Leptochloa panicoides* | Poaceae | Poales | C4 | 93 | N.A. |
| *Leptochloa virgata* | Poaceae | Poales | C4 | 93 | N.A. |
| *Linaria supina* | Plantaginaceae | Lamiales | C3 | 127 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lindernia dubia* | Linderniaceae | Lamiales | C3 | 89 | N.A. |
| *Linum australe* | Linaceae | Malpighiales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Linum stelleroides* | Linaceae | Malpighiales | C3 | 119 | BIEN |
| *Linum sulcatum* | Linaceae | Malpighiales | C3 | 90 | TRY |
| *Linum usitatissimum* | Linaceae | Malpighiales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lipandra polysperma* | Amaranthaceae | Caryophyllales | C3 | 3,26,115 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lolium rigidum* | Poaceae | Poales | C3 | 1,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lolium X* | Poaceae | Poales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Lotus angustissimus* | Fabaceae | Fabales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Lotus corniculatus* | Fabaceae | Fabales | C3 | 11,71,91,92,94,103,104,127–131 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Loudetiopsis kerstingii* | Poaceae | Poales | C4 | 93 | N.A. |
| *Luffa acutangula* | Cucurbitaceae | Cucurbitales | C3 | 89 | N.A. |
| *Luffa aegyptiaca* | Cucurbitaceae | Cucurbitales | C3 | 98 | AusTraits |
| *Lupinus bicolor* | Fabaceae | Fabales | C3 | 94 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Lupinus kingii* | Fabaceae | Fabales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Malvastrum hispidum* | Malvaceae | Malvales | C3 | 90 | TRY |
| *Medicago orbicularis* | Fabaceae | Fabales | C3 | 91,104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Medicago polyceratia* | Fabaceae | Fabales | C3 | 120 | TRY |
| *Melinis repens* | Poaceae | Poales | C4 | 96 | TRY |
|  |  |  |  | 89,93 | N.A. |
| *Mentha spicata* | Lamiaceae | Lamiales | C3 | 89 | N.A. |
| *Mercurialis annua* | Euphorbiaceae | Malpighiales | C3 | 89 | N.A. |
| *Microstegium vimineum* | Poaceae | Poales | C4 | 37 | TRY |
| *Mitreola sessilifolia* | Loganiaceae | Gentianales | C3 | 91 | TRY |
| *Moehringia trinervia* | Caryophyllaceae | Caryophyllales | C3 | 89 | N.A. |
| *Mollugo verticillata* | Molluginaceae | Caryophyllales | C4 | 90,96 | TRY |
| *Mosla dianthera* | Lamiaceae | Lamiales | C3 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Muhlenbergia minutissima* | Poaceae | Poales | C4 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Muhlenbergia peruviana* | Poaceae | Poales | C4 | 94 | TRY |
| *Muhlenbergia ramulosa* | Poaceae | Poales | C4 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Munroa squarrosa* | Poaceae | Poales | C4 | 89 | N.A. |
| *Myagrum perfoliatum* | Brassicaceae | Brassicales | C3 | 115 | TRY |
| *Myosotis verna* | Boraginaceae | Boraginales | C3 | 90 | TRY |
| *Nama dichotoma* | Boraginaceae | Boraginales | C3 | 100 | TRY |
| *Nigella damascena* | Ranunculaceae | Ranunculales | C3 | 115 | TRY |
| *Nigella sativa* | Ranunculaceae | Ranunculales | C3 | 89 | N.A. |
| *Notoceras bicorne* | Brassicaceae | Brassicales | C3 | 120 | TRY |
|  |  |  |  | 89 | N.A. |
| *Nototriche pusilla* | Malvaceae | Malvales | C3 | 104 | TRY |
| *Oenothera curtiflora* | Onagraceae | Myrtales | C3 | 90 | TRY |
| *Oenothera filiformis* | Onagraceae | Myrtales | C3 | 90 | TRY |
| *Oenothera nana* | Onagraceae | Myrtales | C3 | 104 | TRY |
| *Orlaya grandiflora* | Apiaceae | Apiales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Ornithopus compressus* | Fabaceae | Fabales | C3 | 92,109 | TRY |
|  |  |  |  | 89 | N.A. |
| *Ornithopus perpusillus* | Fabaceae | Fabales | C3 | 89 | N.A. |
| *Oryza barthii* | Poaceae | Poales | C3 | 93 | N.A. |
| *Oryza eichingeri* | Poaceae | Poales | C3 | 93 | N.A. |
| *Oryza glaberrima* | Poaceae | Poales | C3 | 93 | N.A. |
| *Oryza grandiglumis* | Poaceae | Poales | C3 | 93 | N.A. |
| *Oryza latifolia* | Poaceae | Poales | C3 | 41 | N.A. |
| *Oryza punctata* | Poaceae | Poales | C3 | 41,89 | N.A. |
| *Oryza rufipogon* | Poaceae | Poales | C3 | 41,89 | N.A. |
|  |  |  |  | 16 | TRY |
| *Oryza sativa* | Poaceae | Poales | C3 | 41,43,49–51,53,89 | N.A. |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 1,16,91,104 | TRY |
| *Oxybasis glauca* | Amaranthaceae | Caryophyllales | C4 | 22,23,91,95,111 | TRY |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Oxychloris scariosa* | Poaceae | Poales | C4 | 93 | N.A. |
| *Panicum bisulcatum* | Poaceae | Poales | C3 | 93 | N.A. |
| *Panicum capillare* | Poaceae | Poales | C4 | 2,3,26,90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Panicum dichotomiflorum* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 89,93 | N.A. |
| *Panicum flexuosum* | Poaceae | Poales | C4 | 93 | N.A. |
|  |  |  |  | 22 | TRY |
| *Panicum laetum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Panicum miliaceum* | Poaceae | Poales | C4 | 89,93 | N.A. |
| *Panicum trichoides* | Poaceae | Poales | C3 | 96 | TRY |
|  |  |  |  | 89 | N.A. |
| *Papaver rhoeas* | Papaveraceae | Ranunculales | C3 | 89 | N.A. |
| *Papaver somniferum* | Papaveraceae | Ranunculales | C3 | 89 | N.A. |
| *Parahyparrhenia annua* | Poaceae | Poales | C4 | 110 | TRY |
| *Parakeelya corrigioloides* | Montiaceae | Caryophyllales | C3 | 91 | TRY |
| *Parietaria pensylvanica* | Urticaceae | Rosales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Paronychia arabica* | Caryophyllaceae | Caryophyllales | C3 | 120 | TRY |
| *Paspalidium clementei* | Poaceae | Poales | C4 | 124 | AusTraits |
| *Pelargonium columbinum* | Geraniaceae | Geraniales | C3 | 96 | TRY |
| *Pelargonium senecioides* | Geraniaceae | Geraniales | C3 | 96 | TRY |
| *Pennisetum basedowii* | Poaceae | Poales | C4 | 114 | AusTraits |
| *Pennisetum glaucum* | Poaceae | Poales | C4 | 89,99 | N.A. |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 3,91 | TRY |
|  |  |  |  | This study | N.A. |
| *Pennisetum sieberianum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Pennisetum violaceum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Pentameris airoides* | Poaceae | Poales | C3 | 105 | AusTraits |
| *Perotis patens* | Poaceae | Poales | C4 | 113 | TRY |
|  |  |  |  | 89 | N.A. |
| *Persicaria bungeana* | Polygonaceae | Caryophyllales | C3 | 2,26,90 | TRY |
| *Persicaria lapathifolia* | Polygonaceae | Caryophyllales | C3 | 89 | N.A. |
|  |  |  |  | 26 | TRY |
| *Persicaria maculosa* | Polygonaceae | Caryophyllales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Persicaria mitis* | Polygonaceae | Caryophyllales | C3 | 89 | N.A. |
| *Persicaria sagittata* | Polygonaceae | Caryophyllales | C3 | 89 | N.A. |
| *Phalaris paradoxa* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Phaseolus lunatus* | Fabaceae | Fabales | C3 | 89 | N.A. |
| *Phaseolus vulgaris* | Fabaceae | Fabales | C3 | 56,89 | N.A. |
|  |  |  |  | 1,132 | TRY |
| *Phoebanthus tenuifolius* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Pilea pumila* | Urticaceae | Rosales | C3 | 90 | TRY |
| *Pimpinella cretica* | Apiaceae | Apiales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Pisum sativum* | Fabaceae | Fabales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Plantago argyrea* | Plantaginaceae | Lamiales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Plantago aristata* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Plantago ciliata* | Plantaginaceae | Lamiales | C3 | 120 | TRY |
|  |  |  |  | 89 | N.A. |
| *Plantago major* | Plantaginaceae | Lamiales | C3 | 3,15,16,26,104,121,133 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Plantago minuta* | Plantaginaceae | Lamiales | C3 | 4 | BIEN |
| *Plantago ovata* | Plantaginaceae | Lamiales | C3 | 120 | TRY |
|  |  |  |  | 89 | N.A. |
| *Plantago patagonica* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Plantago rhodosperma* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Plantago virginica* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Poa annua* | Poaceae | Poales | C3 | 1,16,22,57,91,92,94,128,130 | TRY |
|  |  |  |  | 4,97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Podolepis lessonii* | Asteraceae | Asterales | C3 | 105 | AusTraits |
| *Polycnemum arvense* | Amaranthaceae | Caryophyllales | C3 | 89 | N.A. |
|  |  |  |  | 22,95 | TRY |
| *Polygala myrtifolia* | Polygalaceae | Fabales | C3 | 134 | BIEN |
| *Polygonum aviculare* | Polygonaceae | Caryophyllales | C4 | 22,90,91,95,100,121 | TRY |
|  |  |  |  | 4,97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Polygonum douglasii* | Polygonaceae | Caryophyllales | C3 | 89 | N.A. |
| *Polygonum ramosissimum* | Polygonaceae | Caryophyllales | C3 | 90 | TRY |
| *Polygonum tenue* | Polygonaceae | Caryophyllales | C3 | 90 | TRY |
| *Polytoca hubbardiana* | Poaceae | Poales | C4 | 114 | AusTraits |
| *Portulaca bicolor* | Portulacaceae | Caryophyllales | C3 | 98 | AusTraits |
| *Potentilla norvegica* | Rosaceae | Rosales | C3 | 121 | TRY |
|  |  |  |  | 89 | N.A. |
| *Pseudognaphalium obtusifolium* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Ptilotus aervoides* | Amaranthaceae | Caryophyllales | C3 | 112 | AusTraits |
| *Ptilotus macrocephalus* | Amaranthaceae | Caryophyllales | C4 | 112 | AusTraits |
| *Pulicaria arabica* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Ranunculus arvensis* | Ranunculaceae | Ranunculales | C3 | 89 | N.A. |
| *Ranunculus sceleratus* | Ranunculaceae | Ranunculales | C3 | 89 | N.A. |
| *Raphanus raphanistrum* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
|  |  |  |  | 16,110 | TRY |
| *Rapistrum rugosum* | Brassicaceae | Brassicales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Reseda phyteuma* | Resedaceae | Brassicales | C3 | 127 | TRY |
|  |  |  |  | 89 | N.A. |
| *Rostraria cristata* | Poaceae | Poales | C3 | 2,3,23,91,111,113,118,135 | TRY |
|  |  |  |  | 4,5,122 | BIEN |
|  |  |  |  | 93 | N.A. |
| *Rudbeckia amplexicaulis* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Rudbeckia hirta* | Asteraceae | Asterales | C3 | 89 | N.A. |
| *Rumex pictus* | Polygonaceae | Caryophyllales | C3 | 91 | TRY |
| *Salicornia europaea* | Amaranthaceae | Caryophyllales | C3 | 22,91,95,129,136 | TRY |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Schismus barbatus* | Poaceae | Poales | C3 | 120 | TRY |
|  |  |  |  | 89 | N.A. |
| *Schizachyrium crinizonatum* | Poaceae | Poales | C4 | 113,135 | TRY |
| *Schizachyrium fragile* | Poaceae | Poales | C4 | 98 | AusTraits |
| *Schmidtia kalahariensis* | Poaceae | Poales | C4 | 135 | TRY |
|  |  |  |  | 89 | N.A. |
| *Scolymus maculatus* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Secale cereale* | Poaceae | Poales | C3 | 89,93,99 | N.A. |
|  |  |  |  | 91,110 | TRY |
| *Sesamum indicum* | Pedaliaceae | Lamiales | C3 | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 91 | TRY |
|  |  |  |  | This study | N.A. |
| *Setaria helvola* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Setaria italica* | Poaceae | Poales | C4 | 4 | BIEN |
|  |  |  |  | 89,93 | N.A. |
|  |  |  |  | 91,110 | TRY |
| *Setaria verticillata* | Poaceae | Poales | C4 | 93 | N.A. |
| *Setaria viridis* | Poaceae | Poales | C4 | 3,22,90,95 | TRY |
|  |  |  |  | 89,93 | N.A. |
|  |  |  |  | 4,119 | BIEN |
| *Sicyos angulatus* | Cucurbitaceae | Cucurbitales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Sigesbeckia orientalis* | Asteraceae | Asterales | C3 | 58 | AusTraits |
| *Silene antirrhina* | Caryophyllaceae | Caryophyllales | C3 | 90 | TRY |
| *Sinapis alba* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
|  |  |  |  | 110 | TRY |
| *Siphonostegia chinensis* | Orobanchaceae | Lamiales | C3 | 119 | BIEN |
| *Solanum aethiopicum* | Solanaceae | Solanales | C3 | 89 | N.A. |
| *Solanum lycopersicum* | Solanaceae | Solanales | C3 | 89 | N.A. |
|  |  |  |  | This study | N.A. |
| *Solanum pimpinellifolium* | Solanaceae | Solanales | C3 | 89,99 | N.A. |
|  |  |  |  | This study | N.A. |
| *Solanum ptychanthum* | Solanaceae | Solanales | C3 | 90 | TRY |
| *Solanum rostratum* | Solanaceae | Solanales | C3 | 90 | TRY |
| *Sonchus asper* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Sonchus oleraceus* | Asteraceae | Asterales | C3 | 105 | AusTraits |
|  |  |  |  | 4,97,119 | BIEN |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 22,91,95 | TRY |
| *Sorghum amplum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Sorghum angustum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Sorghum arundinaceum* | Poaceae | Poales | C4 | 89,93 | N.A. |
| *Sorghum bicolor* | Poaceae | Poales | C4 | 4 | BIEN |
|  |  |  |  | 89,93 | N.A. |
|  |  |  |  | 91 | TRY |
|  |  |  |  | 137 | AusTraits |
| *Sorghum brachypodum* | Poaceae | Poales | C4 | 98 | AusTraits |
| *Sorghum ecarinatum* | Poaceae | Poales | C4 | 93 | N.A. |
| *Sorghum intrans* | Poaceae | Poales | C4 | 113,135 | TRY |
| *Sorghum timorense* | Poaceae | Poales | C4 | 114 | AusTraits |
|  |  |  |  | 93 | N.A. |
| *Spergularia diandra* | Caryophyllaceae | Caryophyllales | C3 | 120 | TRY |
|  |  |  |  | 89 | N.A. |
| *Spergularia media* | Caryophyllaceae | Caryophyllales | C3 | 136 | TRY |
| *Spergularia rubra* | Caryophyllaceae | Caryophyllales | C3 | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Sphenopholis obtusata* | Poaceae | Poales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Spinacia oleracea* | Amaranthaceae | Caryophyllales | C3 | 89 | N.A. |
| *Spinacia turkestanica* | Amaranthaceae | Caryophyllales | C3 | 89 | N.A. |
| *Sporobolus australasicus* | Poaceae | Poales | C4 | 114 | AusTraits |
| *Sporobolus panicoides* | Poaceae | Poales | C4 | 135 | TRY |
|  |  |  |  | 89 | N.A. |
| *Stellaria neglecta* | Caryophyllaceae | Caryophyllales | C3 | 89 | N.A. |
| *Stellaria pallida* | Caryophyllaceae | Caryophyllales | C3 | 89 | N.A. |
| *Stipa capensis* | Poaceae | Poales | C3 | 106,120,138 | TRY |
|  |  |  |  | 89,93 | N.A. |
| *Streptoglossa cylindriceps* | Asteraceae | Asterales | C3 | 123 | AusTraits |
| *Strigosella africana* | Brassicaceae | Brassicales | C3 | 91,104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Suaeda glauca* | Amaranthaceae | Caryophyllales | C4 | 4 | BIEN |
|  |  |  |  | 22,91 | TRY |
| *Suaeda heterophylla* | Amaranthaceae | Caryophyllales | C4 | 22,95 | TRY |
| *Suaeda salsa* | Amaranthaceae | Caryophyllales | C3 | 4 | BIEN |
| *Taeniatherum caputmedusae* | Poaceae | Poales | C3 | 92,94 | TRY |
|  |  |  |  | 7,97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Teesdalia nudicaulis* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
| *Tetracme quadricornis* | Brassicaceae | Brassicales | C3 | 4 | BIEN |
|  |  |  |  | 91 | TRY |
| *Teucrium canadense* | Lamiaceae | Lamiales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Thlaspi arvense* | Brassicaceae | Brassicales | C3 | 89 | N.A. |
| *Tolpis barbata* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Tordylium apulum* | Apiaceae | Apiales | C3 | 91,104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Torilis arvensis* | Apiaceae | Apiales | C3 | 90 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trachymene pilosa* | Araliaceae | Apiales | C3 | 91 | TRY |
| *Tragus berteronianus* | Poaceae | Poales | C4 | 1,104,139 | TRY |
|  |  |  |  | 89 | N.A. |
| *Tragus racemosus* | Poaceae | Poales | C4 | 89,93 | N.A. |
|  |  |  |  | 22,95 | TRY |
| *Tribolium echinatum* | Poaceae | Poales | C3 | 93 | N.A. |
| *Tribulus terrestris* | Zygophyllaceae | Zygophyllales | C4 | 22,90,91,95,104 | TRY |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Trifolium angustifolium* | Fabaceae | Fabales | C3 | 92,106 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trifolium arvense* | Fabaceae | Fabales | C3 | 105 | AusTraits |
|  |  |  |  | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trifolium bocconei* | Fabaceae | Fabales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trifolium campestre* | Fabaceae | Fabales | C3 | 71,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trifolium cherleri* | Fabaceae | Fabales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trifolium microcephalum* | Fabaceae | Fabales | C3 | 94 | TRY |
|  |  |  |  | 97 | BIEN |
| *Trifolium purpureum* | Fabaceae | Fabales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trifolium repens* | Fabaceae | Fabales | C3 | 1,2,11,71,90,92,103,104,121,126,128,135,140 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Trifolium stellatum* | Fabaceae | Fabales | C3 | 91,104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Trigonella alba* | Fabaceae | Fabales | C3 | 2,22,115,121 | TRY |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Trigonella foenum-graecum* | Fabaceae | Fabales | C3 | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
|  |  |  |  | 91,110 | TRY |
| *Trigonella officinalis* | Fabaceae | Fabales | C3 | 3,90,91,110 | TRY |
|  |  |  |  | 4,119 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Triodanis leptocarpa* | Campanulaceae | Asterales | C3 | 90 | TRY |
| *Tripleurospermum inodorum* | Asteraceae | Asterales | C4 | 121 | TRY |
| *Tripleurospermum maritimum* | Asteraceae | Asterales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Triticum aestivum* | Poaceae | Poales | C3 | 61,64,65,89,93 | N.A. |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 1,66,91 | TRY |
| *Triticum dicoccoides* | Poaceae | Poales | C3 | 89,99 | N.A. |
|  |  |  |  | 92 | TRY |
| *Triticum monococcum* | Poaceae | Poales | C3 | 89,93 | N.A. |
| *Triticum timopheevii* | Poaceae | Poales | C3 | 93 | N.A. |
| *Triticum turgidum* | Poaceae | Poales | C3 | 66 | TRY |
|  |  |  |  | 89 | N.A. |
| *Urochloa trichopus* | Poaceae | Poales | C4 | 135 | TRY |
| *Valerianella locusta* | Caprifoliaceae | Dipsacales | C3 | 89 | N.A. |
| *Valerianella rimosa* | Caprifoliaceae | Dipsacales | C3 | 89 | N.A. |
| *Veronica arvensis* | Plantaginaceae | Lamiales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Veronica hederifolia* | Plantaginaceae | Lamiales | C3 | 89 | N.A. |
| *Veronica persica* | Plantaginaceae | Lamiales | C3 | 11,92,106 | TRY |
|  |  |  |  | 89 | N.A. |
| *Vicia faba* | Fabaceae | Fabales | C3 | 89 | N.A. |
|  |  |  |  | This study | N.A. |
|  |  |  |  | 110 | TRY |
| *Vicia narbonensis* | Fabaceae | Fabales | C3 | 89,99 | N.A. |
|  |  |  |  | This study | N.A. |
| *Vicia peregrina* | Fabaceae | Fabales | C3 | 104 | TRY |
|  |  |  |  | 89 | N.A. |
| *Vigna unguiculata* | Fabaceae | Fabales | C3 | 89,91,135 | TRY |
|  |  |  |  | 99 | N.A. |
|  |  |  |  | 4 | BIEN |
| *Viola arvensis* | Violaceae | Malpighiales | C3 | 89 | N.A. |
| *Vulpia bromoides* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Vulpia ciliata* | Poaceae | Poales | C3 | 1,92 | TRY |
|  |  |  |  | 89 | N.A. |
| *Vulpia microstachys* | Poaceae | Poales | C3 | 7 | BIEN |
| *Vulpia myuros* | Poaceae | Poales | C3 | 105 | AusTraits |
|  |  |  |  | 89,93 | N.A. |
|  |  |  |  | 7 | BIEN |
| *Waitzia acuminata* | Asteraceae | Asterales | C3 | 105 | AusTraits |
| *Whiteochloa multiciliata* | Poaceae | Poales | C4 | 113,135 | TRY |
| *Xanthisma gracile* | Asteraceae | Asterales | C3 | 100 | TRY |
|  |  |  |  | 89 | N.A. |
| *Xanthium orientale* | Asteraceae | Asterales | C3 | 89 | N.A. |
|  |  |  |  | 16 | TRY |
| *Xanthium strumarium* | Asteraceae | Asterales | C3 | 22,26,90,91,95 | TRY |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 89 | N.A. |
| *Zea mays* | Poaceae | Poales | C4 | 1,66,76,91,135 | TRY |
|  |  |  |  | 4 | BIEN |
|  |  |  |  | 89,93 | N.A. |
| *Zornia glochidiata* | Fabaceae | Fabales | C3 | 67 | TRY |
|  |  |  |  | 89 | N.A. |

(d) Specific leaf area

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** | **Family** | **Order** | **Type** | **Reference** | **Database** |
| *Abelmoschus esculentus* | Malvaceae | Malvales | C3 | 141 | N.A. |
|  |  |  |  | This study | N.A. |
| *Abutilon theophrasti* | Malvaceae | Malvales | C3 | 2 | TRY |
| *Achyrachaena mollis* | Asteraceae | Asterales | C3 | 142 | BIEN |
| *Acmispon brachycarpus* | Fabaceae | Fabales | C3 | 142,143 | BIEN |
| *Aconitum gymnandrum* | Ranunculaceae | Ranunculales | C3 | 5 | BIEN |
|  |  |  |  | 144 | TRY |
| *Actinobole uliginosum* | Asteraceae | Asterales | C3 | 105,145,146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Aegilops geniculata* | Poaceae | Poales | C3 | 147,148 | LEDA |
|  |  |  |  | 2 | TRY |
| *Aegilops neglecta* | Poaceae | Poales | C3 | 1,144 | TRY |
| *Aegilops speltoides* | Poaceae | Poales | C3 | 149,150 | N.A. |
| *Aegilops tauschii* | Poaceae | Poales | C3 | 149 | N.A. |
| *Aegilops triuncialis* | Poaceae | Poales | C3 | 7 | BIEN |
| *Agoseris heterophylla* | Asteraceae | Asterales | C3 | 143 | BIEN |
| *Agriophyllum squarrosum* | Amaranthaceae | Caryophyllales | C4 | 95 | TRY |
| *Agrostis muelleriana* | Poaceae | Poales | C3 | 151 | AusTraits |
| *Agrostis scabra* | Poaceae | Poales | C3 | 2,152 | TRY |
|  |  |  |  | 97 | BIEN |
| *Aira caryophyllea* | Poaceae | Poales | C3 | 7,97 | BIEN |
| *Aira cupaniana* | Poaceae | Poales | C3 | 145 | AusTraits |
| *Aira elegantissima* | Poaceae | Poales | C3 | 153 | AusTraits |
| *Aira praecox* | Poaceae | Poales | C3 | 97 | BIEN |
| *Alloteropsis cimicina* | Poaceae | Poales | C4 | 150 | N.A. |
| *Alopecurus myosuroides* | Poaceae | Poales | C3 | 154 | LEDA |
| *Alopecurus utriculatus* | Poaceae | Poales | C3 | 92 | TRY |
| *Alyssum alyssoides* | Brassicaceae | Brassicales | C3 | 155 | BIEN |
| *Alyssum linifolium* | Brassicaceae | Brassicales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Amaranthus blitoides* | Amaranthaceae | Caryophyllales | C4 | 156 | LEDA |
|  |  |  |  | 2 | TRY |
| *Amaranthus cruentus* | Amaranthaceae | Caryophyllales | C4 | 141 | N.A. |
|  |  |  |  | This study | N.A. |
| *Amaranthus hybridus* | Amaranthaceae | Caryophyllales | C4 | 141 | N.A. |
| *Amaranthus retroflexus* | Amaranthaceae | Caryophyllales | C4 | 156 | LEDA |
|  |  |  |  | 1,2 | TRY |
| *Amsinckia menziesii* | Boraginaceae | Boraginales | C3 | 97,143 | BIEN |
| *Anacyclus clavatus* | Asteraceae | Asterales | C3 | 157 | BIEN |
| *Androsace septentrionalis* | Primulaceae | Ericales | C3 | 152 | TRY |
| *Anthemis arvensis* | Asteraceae | Asterales | C3 | 97,157 | BIEN |
| *Anthriscus caucalis* | Apiaceae | Apiales | C3 | 97 | BIEN |
| *Anthyllis vulneraria* | Fabaceae | Fabales | C3 | 101 | TRY |
|  |  |  |  | 158 | BIEN |
| *Arabidopsis thaliana* | Brassicaceae | Brassicales | C3 | 97 | BIEN |
|  |  |  |  | 18–21 | N.A. |
| *Arachis hypogaea* | Fabaceae | Fabales | C3 | 141 | N.A. |
|  |  |  |  | This study | N.A. |
| *Arachis monticola* | Fabaceae | Fabales | C3 | 141 | N.A. |
|  |  |  |  | This study | N.A. |
| *Arctotheca calendula* | Asteraceae | Asterales | C3 | 145,153 | AusTraits |
| *Arenaria serpyllifolia* | Caryophyllaceae | Caryophyllales | C3 | 97 | BIEN |
|  |  |  |  | 106 | TRY |
| *Aristida funiculata* | Poaceae | Poales | C4 | 150 | N.A. |
| *Artemisia scoparia* | Asteraceae | Asterales | C3 | 107 | BIEN |
|  |  |  |  | 95,144 | TRY |
| *Aster subulatus* | Asteraceae | Asterales | C3 | 159 | AusTraits |
| *Astragalus gambelianus* | Fabaceae | Fabales | C3 | 143 | BIEN |
| *Astragalus pelecinus* | Fabaceae | Fabales | C3 | 157 | BIEN |
| *Athysanus pusillus* | Brassicaceae | Brassicales | C3 | 142 | BIEN |
| *Atriplex angulata* | Amaranthaceae | Caryophyllales | C4 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Avena barbata* | Poaceae | Poales | C3 | 7,157 | BIEN |
|  |  |  |  | 105,145,153,160 | AusTraits |
|  |  |  |  | 147,148,161 | LEDA |
|  |  |  |  | 1,144 | TRY |
| *Avena fatua* | Poaceae | Poales | C3 | 159 | AusTraits |
|  |  |  |  | 7,97 | BIEN |
|  |  |  |  | 149,150 | N.A. |
|  |  |  |  | 154 | LEDA |
| *Avena sativa* | Poaceae | Poales | C3 | 159 | AusTraits |
|  |  |  |  | 141,149,150,162 | N.A. |
|  |  |  |  | 156 | LEDA |
|  |  |  |  | This study | N.A. |
|  |  |  |  | 163 | TRY |
|  |  |  |  | 7 | BIEN |
| *Avena sterilis* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 141,149,162 | N.A. |
|  |  |  |  | This study | N.A. |
| *Avena strigosa* | Poaceae | Poales | C3 | 163 | TRY |
| *Axyris amaranthoides* | Amaranthaceae | Caryophyllales | C4 | 23 | TRY |
| *Bellardia trixago* | Orobanchaceae | Lamiales | C3 | 157 | BIEN |
| *Bellida graminea* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Beta vulgaris* | Amaranthaceae | Caryophyllales | C3 | 25,70,162 | N.A. |
|  |  |  |  | 156 | LEDA |
|  |  |  |  | 2,16 | TRY |
| *Blennospora drummondii* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Borago officinalis* | Boraginaceae | Boraginales | C3 | 141 | N.A. |
|  |  |  |  | This study | N.A. |
| *Bouteloua aristidoides* | Poaceae | Poales | C4 | 144 | TRY |
| *Brachiaria lata* | Poaceae | Poales | C4 | 150 | N.A. |
| *Brachypodium distachyon* | Poaceae | Poales | C3 | 1,2,92,144 | TRY |
| *Brachyscome curvicarpa* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Brachyscome iberidifolia* | Asteraceae | Asterales | C3 | 105,145 | AusTraits |
| *Brachyscome perpusilla* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Brassica carinata* | Brassicaceae | Brassicales | C3 | 163 | TRY |
| *Brassica juncea* | Brassicaceae | Brassicales | C3 | 163 | TRY |
| *Brassica napus* | Brassicaceae | Brassicales | C3 | 154,156 | LEDA |
|  |  |  |  | 28,29,31,36 | N.A. |
|  |  |  |  | 144,163 | TRY |
| *Brassica oleracea* | Brassicaceae | Brassicales | C3 | 25,141,162 | N.A. |
|  |  |  |  | 156,164 | LEDA |
|  |  |  |  | This study | N.A. |
| *Brassica rapa* | Brassicaceae | Brassicales | C3 | 97 | BIEN |
|  |  |  |  | 165 | LEDA |
|  |  |  |  | 163 | TRY |
| *Brassica tournefortii* | Brassicaceae | Brassicales | C3 | 145,146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Briza maxima* | Poaceae | Poales | C3 | 33,145,153 | AusTraits |
|  |  |  |  | 150 | N.A. |
|  |  |  |  | 7 | BIEN |
| *Briza minor* | Poaceae | Poales | C3 | 153 | AusTraits |
| *Bromus brachystachys* | Poaceae | Poales | C3 | 149 | N.A. |
| *Bromus carinatus* | Poaceae | Poales | C3 | 7,97,142 | BIEN |
| *Bromus commutatus* | Poaceae | Poales | C3 | 97 | BIEN |
| *Bromus diandrus* | Poaceae | Poales | C3 | 7,142,143 | BIEN |
| *Bromus hordeaceus* | Poaceae | Poales | C3 | 7,97,142,143,157 | BIEN |
|  |  |  |  | 161,166 | LEDA |
|  |  |  |  | 1,71,144 | TRY |
|  |  |  |  | 153 | AusTraits |
| *Bromus lanceolatus* | Poaceae | Poales | C3 | 147,161 | LEDA |
|  |  |  |  | 1,2,92,144 | TRY |
| *Bromus madritensis* | Poaceae | Poales | C3 | 161 | LEDA |
|  |  |  |  | 1,106,144 | TRY |
|  |  |  |  | 143 | BIEN |
| *Bromus pumilio* | Poaceae | Poales | C3 | 150 | N.A. |
| *Bromus rigidus* | Poaceae | Poales | C3 | 157 | BIEN |
| *Bromus rubens* | Poaceae | Poales | C3 | 157 | BIEN |
|  |  |  |  | 105,145 | AusTraits |
| *Bromus sterilis* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 154 | LEDA |
| *Bromus tectorum* | Poaceae | Poales | C3 | 97,157 | BIEN |
| *Buglossoides arvensis* | Boraginaceae | Boraginales | C3 | 97 | BIEN |
| *Bulbine semibarbata* | Asphodelaceae | Asparagales | C3 | 145,146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Calotis hispidula* | Asteraceae | Asterales | C3 | 145,146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Calotis inermis* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Calotis plumulifera* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Calystegia sepium* | Convolvulaceae | Solanales | C3 | 167 | LEDA |
| *Camelina sativa* | Brassicaceae | Brassicales | C3 | 163 | TRY |
| *Capsicum annuum* | Solanaceae | Solanales | C3 | 156 | LEDA |
|  |  |  |  | 35,116,162 | N.A. |
|  |  |  |  | 16 | TRY |
| *Cardamine flexuosa* | Brassicaceae | Brassicales | C3 | 97 | BIEN |
| *Carduus pycnocephalus* | Asteraceae | Asterales | C3 | 143 | BIEN |
| *Carthamus glaucus* | Asteraceae | Asterales | C3 | 92 | TRY |
| *Catapodium rigidum* | Poaceae | Poales | C3 | 1,144 | TRY |
| *Cenchrus brownii* | Poaceae | Poales | C4 | 150 | N.A. |
| *Cenchrus echinatus* | Poaceae | Poales | C4 | 150 | N.A. |
| *Cenchrus pilosus* | Poaceae | Poales | C4 | 150 | N.A. |
| *Centaurea melitensis* | Asteraceae | Asterales | C3 | 143 | BIEN |
| *Centaurea solstitialis* | Asteraceae | Asterales | C3 | 155 | BIEN |
| *Centrolepis aristata* | Restionaceae | Poales | C3 | 145,168,169 | AusTraits |
| *Centrolepis strigosa* | Restionaceae | Poales | C3 | 168 | AusTraits |
| *Cephalipterum drummondii* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Cerastium glomeratum* | Caryophyllaceae | Caryophyllales | C3 | 97 | BIEN |
| *Cerastium pumilum* | Caryophyllaceae | Caryophyllales | C3 | 97 | BIEN |
| *Cerastium semidecandrum* | Caryophyllaceae | Caryophyllales | C3 | 97 | BIEN |
| *Ceratogyne obionoides* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Chenopodium acuminatum* | Amaranthaceae | Caryophyllales | C3 | 95,144 | TRY |
| *Chenopodium ficifolium* | Amaranthaceae | Caryophyllales | C3 | 158 | BIEN |
| *Chenopodium vulvaria* | Amaranthaceae | Caryophyllales | C3 | 155 | BIEN |
|  |  |  |  | 95 | TRY |
| *Chloris pectinata* | Poaceae | Poales | C4 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Chloris virgata* | Poaceae | Poales | C4 | 146 | AusTraits |
|  |  |  |  | 95,144 | TRY |
| *Chthonocephalus pseudevax* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Chylismia brevipes* | Onagraceae | Myrtales | C3 | 2 | TRY |
| *Chylismia claviformis* | Onagraceae | Myrtales | C3 | 2 | TRY |
| *Cicer arietinum* | Fabaceae | Fabales | C3 | 149,162 | N.A. |
| *Cicer judaicum* | Fabaceae | Fabales | C3 | 149 | N.A. |
| *Cicer reticulatum* | Fabaceae | Fabales | C3 | 149,162 | N.A. |
| *Cladanthus mixtus* | Asteraceae | Asterales | C3 | 157 | BIEN |
| *Clarkia purpurea* | Onagraceae | Myrtales | C3 | 142,143 | BIEN |
| *Claytonia parviflora* | Montiaceae | Caryophyllales | C3 | 142 | BIEN |
| *Claytonia perfoliata* | Montiaceae | Caryophyllales | C3 | 97,142 | BIEN |
| *Coix lacryma-jobi* | Poaceae | Poales | C4 | 150 | N.A. |
| *Collomia heterophylla* | Polemoniaceae | Ericales | C3 | 142 | BIEN |
| *Conringia orientalis* | Brassicaceae | Brassicales | C3 | 97 | BIEN |
| *Conyza canadensis* | Asteraceae | Asterales | C3 | 170 | LEDA |
|  |  |  |  | 158,171 | BIEN |
| *Cordylanthus tenuis* | Orobanchaceae | Lamiales | C3 | 142 | BIEN |
| *Craspedia variabilis* | Asteraceae | Asterales | C3 | 168,169 | AusTraits |
| *Crepis biennis* | Asteraceae | Asterales | C3 | 71 | TRY |
|  |  |  |  | 172 | BIEN |
| *Crepis capillaris* | Asteraceae | Asterales | C3 | 97,157 | BIEN |
| *Crepis foetida* | Asteraceae | Asterales | C3 | 106 | TRY |
| *Crepis nicaeensis* | Asteraceae | Asterales | C3 | 95 | TRY |
| *Crepis occidentalis* | Asteraceae | Asterales | C3 | 173 | BIEN |
| *Crepis sancta* | Asteraceae | Asterales | C3 | 147 | LEDA |
| *Crepis vesicaria* | Asteraceae | Asterales | C3 | 157 | BIEN |
|  |  |  |  | 147 | LEDA |
| *Cucumis sativus* | Cucurbitaceae | Cucurbitales | C3 | 36 | N.A. |
|  |  |  |  | 16 | TRY |
| *Cymbonotus lawsonianus* | Asteraceae | Asterales | C3 | 153 | AusTraits |
| *Cynosurus echinatus* | Poaceae | Poales | C3 | 153 | AusTraits |
|  |  |  |  | 7 | BIEN |
| *Cyperus flavidus* | Cyperaceae | Poales | C4 | 37 | TRY |
| *Dactyloctenium aegyptium* | Poaceae | Poales | C4 | 150 | N.A. |
| *Dactyloctenium giganteum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Dactyloctenium radulans* | Poaceae | Poales | C4 | 174 | AusTraits |
|  |  |  |  | 150 | N.A. |
| *Danthoniopsis dinteri* | Poaceae | Poales | C4 | 150 | N.A. |
| *Dasypyrum villosum* | Poaceae | Poales | C3 | 150 | N.A. |
| *Daucus glochidiatus* | Apiaceae | Apiales | C3 | 145,146,153,168,169 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Digitaria ciliaris* | Poaceae | Poales | C4 | 150 | N.A. |
| *Digitaria sanguinalis* | Poaceae | Poales | C4 | 159 | AusTraits |
|  |  |  |  | 144 | TRY |
|  |  |  |  | 150 | N.A. |
| *Digitaria setigera* | Poaceae | Poales | C4 | 150 | N.A. |
| *Diheteropogon hagerupii* | Poaceae | Poales | C4 | 150 | N.A. |
| *Diplotaxis erucoides* | Brassicaceae | Brassicales | C3 | 175 | LEDA |
| *Diplotaxis ibicensis* | Brassicaceae | Brassicales | C3 | 70 | N.A. |
|  |  |  |  | 16 | TRY |
| *Dontostemon micranthus* | Brassicaceae | Brassicales | C3 | 107 | BIEN |
| *Draba verna* | Brassicaceae | Brassicales | C3 | 97 | BIEN |
| *Dysphania aristata* | Amaranthaceae | Caryophyllales | C3 | 95 | TRY |
| *Dysphania melanocarpa* | Amaranthaceae | Caryophyllales | C3 | 174 | AusTraits |
| *Echinochloa cruspavonis* | Poaceae | Poales | C4 | 150 | N.A. |
| *Echinochloa frumentacea* | Poaceae | Poales | C4 | 150 | N.A. |
| *Echinochloa muricata* | Poaceae | Poales | C4 | 150 | N.A. |
| *Echinochloa oryzoides* | Poaceae | Poales | C4 | 150 | N.A. |
| *Echinochloa stagnina* | Poaceae | Poales | C4 | 150 | N.A. |
| *Echium plantagineum* | Boraginaceae | Boraginales | C3 | 157 | BIEN |
|  |  |  |  | 145,159 | AusTraits |
|  |  |  |  | 16 | TRY |
|  |  |  |  | 176 | LEDA |
| *Ehrharta longiflora* | Poaceae | Poales | C3 | 145 | AusTraits |
| *Eleusine coracana* | Poaceae | Poales | C4 | 150 | N.A. |
| *Eleusine indica* | Poaceae | Poales | C4 | 144 | TRY |
|  |  |  |  | 150 | N.A. |
| *Enneapogon avenaceus* | Poaceae | Poales | C4 | 177 | AusTraits |
| *Enneapogon polyphyllus* | Poaceae | Poales | C4 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Enteropogon prieurii* | Poaceae | Poales | C4 | 150 | N.A. |
| *Epaltes australis* | Asteraceae | Asterales | C3 | 105 | AusTraits |
| *Epilobium minutum* | Onagraceae | Myrtales | C3 | 142 | BIEN |
| *Eragrostis cilianensis* | Poaceae | Poales | C4 | 95 | TRY |
|  |  |  |  | 150 | N.A. |
|  |  |  |  | 177 | AusTraits |
| *Eragrostis mexicana* | Poaceae | Poales | C4 | 150 | N.A. |
| *Eragrostis minor* | Poaceae | Poales | C4 | 95 | TRY |
| *Eragrostis pectinacea* | Poaceae | Poales | C4 | 150 | N.A. |
| *Eragrostis pilosa* | Poaceae | Poales | C4 | 150 | N.A. |
| *Eragrostis unioloides* | Poaceae | Poales | C4 | 150 | N.A. |
| *Eremopyrum bonaepartis* | Poaceae | Poales | C3 | 149 | N.A. |
| *Eremopyrum orientale* | Poaceae | Poales | C3 | 149 | N.A. |
| *Eremopyrum triticeum* | Poaceae | Poales | C3 | 150 | N.A. |
| *Eriachne aristidea* | Poaceae | Poales | C4 | 150 | N.A. |
| *Erigeron annuus* | Asteraceae | Asterales | C3 | 164 | LEDA |
| *Erodium aureum* | Geraniaceae | Geraniales | C3 | 145 | AusTraits |
| *Erodium botrys* | Geraniaceae | Geraniales | C3 | 105 | AusTraits |
| *Erodium ciconium* | Geraniaceae | Geraniales | C3 | 92 | TRY |
| *Erodium crinitum* | Geraniaceae | Geraniales | C3 | 174 | AusTraits |
| *Erodium cygnorum* | Geraniaceae | Geraniales | C3 | 145,177 | AusTraits |
| *Erodium moschatum* | Geraniaceae | Geraniales | C3 | 143 | BIEN |
| *Erodium stephanianum* | Geraniaceae | Geraniales | C3 | 95,144 | TRY |
| *Eruca vesicaria* | Brassicaceae | Brassicales | C3 | 162 | N.A. |
|  |  |  |  | 163 | TRY |
| *Erymophyllum ramosum* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Erymophyllum tenellum* | Asteraceae | Asterales | C3 | 105 | AusTraits |
| *Euchiton sphaericus* | Asteraceae | Asterales | C3 | 159 | AusTraits |
| *Euphorbia drummondii* | Euphorbiaceae | Malpighiales | C4 | 146,174 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Euphorbia humifusa* | Euphorbiaceae | Malpighiales | C4 | 2,95,144 | TRY |
| *Euphorbia maculata* | Euphorbiaceae | Malpighiales | C4 | 178 | TRY |
| *Fagopyrum esculentum* | Polygonaceae | Caryophyllales | C3 | 163 | TRY |
| *Festuca incurva* | Poaceae | Poales | C3 | 157 | BIEN |
| *Filago gallica* | Asteraceae | Asterales | C3 | 143 | BIEN |
| *Filago pyramidata* | Asteraceae | Asterales | C3 | 157 | BIEN |
| *Galium divaricatum* | Rubiaceae | Gentianales | C3 | 153 | AusTraits |
| *Galium parisiense* | Rubiaceae | Gentianales | C3 | 142 | BIEN |
| *Gentiana parvula* | Gentianaceae | Gentianales | C3 | 122 | BIEN |
| *Gentianella amarella* | Gentianaceae | Gentianales | C3 | 74 | TRY |
| *Gentianopsis paludosa* | Gentianaceae | Gentianales | C3 | 122 | BIEN |
| *Gilberta tenuifolia* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Gilia capitata* | Polemoniaceae | Ericales | C3 | 142 | BIEN |
| *Gilia clivorum* | Polemoniaceae | Ericales | C3 | 143 | BIEN |
| *Glycine max* | Fabaceae | Fabales | C3 | 1 | TRY |
|  |  |  |  | 20,162 | N.A. |
| *Gnaphalium affine* | Asteraceae | Asterales | C3 | 2,144 | TRY |
| *Gnaphalium luteoalbum* | Asteraceae | Asterales | C3 | 159,169 | AusTraits |
|  |  |  |  | 5 | BIEN |
| *Gnephosis tenuissima* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Gonocarpus nodulosus* | Haloragaceae | Saxifragales | C3 | 145 | AusTraits |
| *Goodenia berardiana* | Goodeniaceae | Asterales | C3 | 145 | AusTraits |
| *Goodenia cycloptera* | Goodeniaceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Goodenia havilandi* | Goodeniaceae | Asterales | C3 | 174 | AusTraits |
| *Grubovia dasyphylla* | Amaranthaceae | Caryophyllales | C4 | 95 | TRY |
| *Guizotia abyssinica* | Asteraceae | Asterales | C3 | 163 | TRY |
| *Halenia elliptica* | Gentianaceae | Gentianales | C3 | 122 | BIEN |
| *Harmsiodoxa blennodioides* | Brassicaceae | Brassicales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Harmsiodoxa brevipes* | Brassicaceae | Brassicales | C3 | 174 | AusTraits |
| *Harmsiodoxa puberula* | Brassicaceae | Brassicales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Helianthus agrestis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus annuus* | Asteraceae | Asterales | C3 | 156 | LEDA |
|  |  |  |  | 1,16,144,163 | TRY |
|  |  |  |  | 39 | BIEN |
|  |  |  |  | 25,35,40,162 | N.A. |
| *Helianthus argophyllus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus debilis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus neglectus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus praecox* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Heliotropium europaeum* | Boraginaceae | Boraginales | C3 | 174 | AusTraits |
| *Hesperolinon micranthum* | Linaceae | Malpighiales | C3 | 142 | BIEN |
| *Hordeum marinum* | Poaceae | Poales | C3 | 149 | N.A. |
| *Hordeum murinum* | Poaceae | Poales | C3 | 97,143,157 | BIEN |
|  |  |  |  | 105,145,146,177 | AusTraits |
|  |  |  |  | 161 | LEDA |
|  |  |  |  | 1,144 | TRY |
| *Hordeum spontaneum* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 141,149,150,162 | N.A. |
| *Hordeum vulgare* | Poaceae | Poales | C3 | 141,149,150,162 | N.A. |
|  |  |  |  | 179 | LEDA |
| *Hyalosperma demissum* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Hyalosperma glutinosum* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Hyalosperma semisterile* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Hydrocotyle callicarpa* | Araliaceae | Apiales | C3 | 169 | AusTraits |
| *Hydrocotyle foveolata* | Araliaceae | Apiales | C3 | 168,169 | AusTraits |
| *Hydrocotyle pilifera* | Araliaceae | Apiales | C3 | 145 | AusTraits |
| *Hypecoum leptocarpum* | Papaveraceae | Ranunculales | C3 | 122 | BIEN |
| *Hypericum gramineum* | Hypericaceae | Malpighiales | C3 | 123,153,169,180 | AusTraits |
| *Hypochaeris glabra* | Asteraceae | Asterales | C3 | 145,153,159 | AusTraits |
|  |  |  |  | 97,143 | BIEN |
| *Impatiens capensis* | Balsaminaceae | Ericales | C3 | 37,178 | TRY |
|  |  |  |  | 164 | LEDA |
| *Impatiens furcillata* | Balsaminaceae | Ericales | C3 | 95 | TRY |
| *Ipomoea purpurea* | Convolvulaceae | Solanales | C3 | 144 | TRY |
| *Isatis lusitanica* | Brassicaceae | Brassicales | C3 | 92 | TRY |
| *Ischaemum rugosum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Isoetopsis graminifolia* | Asteraceae | Asterales | C3 | 145,146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Ixeris chinensis* | Asteraceae | Asterales | C3 | 95 | TRY |
| *Jacobaea vulgaris* | Asteraceae | Asterales | C3 | 97 | BIEN |
|  |  |  |  | 144 | TRY |
| *Kali collinum* | Amaranthaceae | Caryophyllales | C4 | 23,95,144 | TRY |
|  |  |  |  | 107 | BIEN |
| *Kalimeris altaica* | Asteraceae | Asterales | C3 | 95,144 | TRY |
| *Kickxia spuria* | Plantaginaceae | Lamiales | C3 | 147 | LEDA |
| *Kummerowia striata* | Fabaceae | Fabales | C3 | 95 | TRY |
| *Lachnagrostis filiformis* | Poaceae | Poales | C3 | 159,169,180 | AusTraits |
| *Lachnagrostis meionectes* | Poaceae | Poales | C3 | 151 | AusTraits |
| *Lactuca indica* | Asteraceae | Asterales | C3 | 144 | TRY |
| *Lactuca ludoviciana* | Asteraceae | Asterales | C3 | 2,144 | TRY |
| *Lactuca saligna* | Asteraceae | Asterales | C3 | 159 | AusTraits |
| *Lactuca sativa* | Asteraceae | Asterales | C3 | 141 | N.A. |
|  |  |  |  | 156 | LEDA |
|  |  |  |  | This study | N.A. |
| *Lactuca serriola* | Asteraceae | Asterales | C3 | 159 | AusTraits |
|  |  |  |  | 97,142,143,155,158 | BIEN |
|  |  |  |  | 141 | N.A. |
|  |  |  |  | This study | N.A. |
| *Lamarckia aurea* | Poaceae | Poales | C3 | 157 | BIEN |
| *Lamium purpureum* | Lamiaceae | Lamiales | C3 | 97 | BIEN |
| *Lapsana communis* | Asteraceae | Asterales | C3 | 97,158 | BIEN |
| *Lapsanastrum humile* | Asteraceae | Asterales | C3 | 126 | TRY |
| *Lasthenia californica* | Asteraceae | Asterales | C3 | 143 | BIEN |
| *Lathyrus aphaca* | Fabaceae | Fabales | C3 | 92 | TRY |
| *Lathyrus cicera* | Fabaceae | Fabales | C3 | 141,162 | N.A. |
| *Lathyrus sativus* | Fabaceae | Fabales | C3 | 141,162 | N.A. |
|  |  |  |  | 163 | TRY |
| *Lawrencella rosea* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Lens culinaris* | Fabaceae | Fabales | C3 | 141,149 | N.A. |
| *Lepidium nitidum* | Brassicaceae | Brassicales | C3 | 143 | BIEN |
| *Leptochloa fusca* | Poaceae | Poales | C4 | 159 | AusTraits |
| *Leptochloa panicoides* | Poaceae | Poales | C4 | 150 | N.A. |
| *Leptochloa virgata* | Poaceae | Poales | C4 | 150 | N.A. |
| *Leptosiphon ciliatus* | Polemoniaceae | Ericales | C3 | 142 | BIEN |
| *Levenhookia dubia* | Stylidiaceae | Asterales | C3 | 145 | AusTraits |
| *Linaria pelisseriana* | Plantaginaceae | Lamiales | C3 | 153 | AusTraits |
| *Linum stelleroides* | Linaceae | Malpighiales | C3 | 95,144 | TRY |
| *Linum usitatissimum* | Linaceae | Malpighiales | C3 | 141 | N.A. |
| *Lipandra polysperma* | Amaranthaceae | Caryophyllales | C3 | 155 | BIEN |
| *Lobelia gibbosa* | Campanulaceae | Asterales | C3 | 145 | AusTraits |
| *Lolium rigidum* | Poaceae | Poales | C3 | 157 | BIEN |
|  |  |  |  | 161 | LEDA |
|  |  |  |  | 1,92,144 | TRY |
|  |  |  |  | 153 | AusTraits |
| *Lolium X* | Poaceae | Poales | C3 | 163 | TRY |
| *Lotus angustissimus* | Fabaceae | Fabales | C3 | 159 | AusTraits |
| *Lotus corniculatus* | Fabaceae | Fabales | C3 | 97,158,181 | BIEN |
|  |  |  |  | 147,148 | LEDA |
|  |  |  |  | 71 | TRY |
| *Loudetiopsis kerstingii* | Poaceae | Poales | C4 | 150 | N.A. |
| *Lupinus bicolor* | Fabaceae | Fabales | C3 | 143 | BIEN |
| *Lupinus nanus* | Fabaceae | Fabales | C3 | 143 | BIEN |
| *Lythrum hyssopifolia* | Lythraceae | Myrtales | C3 | 159,180 | AusTraits |
| *Madia elegans* | Asteraceae | Asterales | C3 | 142 | BIEN |
| *Malva pusilla* | Malvaceae | Malvales | C3 | 182 | LEDA |
| *Medicago polymorpha* | Fabaceae | Fabales | C3 | 145 | AusTraits |
|  |  |  |  | 92 | TRY |
|  |  |  |  | 143 | BIEN |
| *Melinis repens* | Poaceae | Poales | C4 | 146 | AusTraits |
|  |  |  |  | 2,144 | TRY |
|  |  |  |  | 150 | N.A. |
| *Mentzelia dispersa* | Loasaceae | Cornales | C3 | 142 | BIEN |
| *Micropus californicus* | Asteraceae | Asterales | C3 | 143 | BIEN |
| *Microstegium vimineum* | Poaceae | Poales | C4 | 37 | TRY |
| *Millotia myosotidifolia* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Moenchia erecta* | Caryophyllaceae | Caryophyllales | C3 | 153 | AusTraits |
| *Mollugo verticillata* | Molluginaceae | Caryophyllales | C4 | 159 | AusTraits |
| *Montia fontana* | Montiaceae | Caryophyllales | C3 | 97 | BIEN |
| *Muhlenbergia peruviana* | Poaceae | Poales | C4 | 144 | TRY |
| *Myosotis discolor* | Boraginaceae | Boraginales | C3 | 97 | BIEN |
|  |  |  |  | 153 | AusTraits |
| *Myosurus minimus* | Ranunculaceae | Ranunculales | C3 | 97 | BIEN |
| *Myriocephalus rhizocephalus* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Navarretia jaredii* | Polemoniaceae | Ericales | C3 | 143 | BIEN |
| *Neatostema apulum* | Boraginaceae | Boraginales | C3 | 157 | BIEN |
| *Nemophila heterophylla* | Boraginaceae | Boraginales | C3 | 142 | BIEN |
| *Nicotiana rotundifolia* | Solanaceae | Solanales | C3 | 145 | AusTraits |
| *Ochthodium aegyptiacum* | Brassicaceae | Brassicales | C3 | 92 | TRY |
| *Ocimum basilicum* | Lamiaceae | Lamiales | C3 | 16 | TRY |
|  |  |  |  | 35 | N.A. |
| *Omphalolappula concava* | Boraginaceae | Boraginales | C3 | 145,146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Ornithopus compressus* | Fabaceae | Fabales | C3 | 157 | BIEN |
| *Oryza barthii* | Poaceae | Poales | C3 | 150 | N.A. |
| *Oryza eichingeri* | Poaceae | Poales | C3 | 150 | N.A. |
| *Oryza glaberrima* | Poaceae | Poales | C3 | 150 | N.A. |
| *Oryza grandiglumis* | Poaceae | Poales | C3 | 150 | N.A. |
| *Oryza latifolia* | Poaceae | Poales | C3 | 41 | N.A. |
| *Oryza punctata* | Poaceae | Poales | C3 | 41 | N.A. |
| *Oryza rufipogon* | Poaceae | Poales | C3 | 41,162 | N.A. |
| *Oryza sativa* | Poaceae | Poales | C3 | 20,36,40,41,43,44,46,49–51,53,162 | N.A. |
|  |  |  |  | 1 | TRY |
| *Osteospermum monstrosum* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Oxybasis glauca* | Amaranthaceae | Caryophyllales | C4 | 23,95 | TRY |
| *Oxychloris scariosa* | Poaceae | Poales | C4 | 150 | N.A. |
| *Panicum bisulcatum* | Poaceae | Poales | C3 | 150 | N.A. |
| *Panicum capillare* | Poaceae | Poales | C4 | 170,183 | LEDA |
|  |  |  |  | 2 | TRY |
| *Panicum dichotomiflorum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Panicum flexuosum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Panicum hirticaule* | Poaceae | Poales | C4 | 150 | N.A. |
| *Panicum laetum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Panicum miliaceum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Papaver rhoeas* | Papaveraceae | Ranunculales | C3 | 154 | LEDA |
| *Parahyparrhenia annua* | Poaceae | Poales | C4 | 163 | TRY |
| *Parakeelya corrigioloides* | Montiaceae | Caryophyllales | C3 | 145 | AusTraits |
| *Parakeelya eremaea* | Montiaceae | Caryophyllales | C3 | 145,146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Parakeelya nana* | Montiaceae | Caryophyllales | C3 | 145 | AusTraits |
| *Parakeelya ptychosperma* | Montiaceae | Caryophyllales | C3 | 174 | AusTraits |
| *Parentucellia latifolia* | Orobanchaceae | Lamiales | C3 | 145,153 | AusTraits |
| *Pennisetum glaucum* | Poaceae | Poales | C4 | 141,162 | N.A. |
|  |  |  |  | 144 | TRY |
|  |  |  |  | This study | N.A. |
| *Pennisetum sieberianum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Pennisetum violaceum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Pentameris airoides* | Poaceae | Poales | C3 | 105,145 | AusTraits |
| *Persicaria bungeana* | Polygonaceae | Caryophyllales | C3 | 2 | TRY |
| *Persicaria lapathifolia* | Polygonaceae | Caryophyllales | C3 | 159 | AusTraits |
|  |  |  |  | 183,184 | LEDA |
| *Persicaria maculosa* | Polygonaceae | Caryophyllales | C3 | 155 | BIEN |
|  |  |  |  | 164,166 | LEDA |
|  |  |  |  | 144 | TRY |
| *Persicaria posumbu* | Polygonaceae | Caryophyllales | C3 | 178 | TRY |
| *Petrorhagia dubia* | Caryophyllaceae | Caryophyllales | C3 | 145 | AusTraits |
| *Petrorhagia nanteuilii* | Caryophyllaceae | Caryophyllales | C3 | 157 | BIEN |
|  |  |  |  | 153 | AusTraits |
| *Phalaris minor* | Poaceae | Poales | C3 | 159 | AusTraits |
| *Phalaris paradoxa* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 149 | N.A. |
| *Phaseolus vulgaris* | Fabaceae | Fabales | C3 | 35,55,56 | N.A. |
|  |  |  |  | 1,16,132 | TRY |
| *Phlegmatospermum cochlearinum* | Brassicaceae | Brassicales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Phlox gracilis* | Polemoniaceae | Ericales | C3 | 142 | BIEN |
| *Phoebanthus tenuifolius* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Phyllangium sulcatum* | Loganiaceae | Gentianales | C3 | 145 | AusTraits |
| *Pimelea simplex* | Thymelaeaceae | Malvales | C3 | 174 | AusTraits |
| *Pimpinella cretica* | Apiaceae | Apiales | C3 | 92 | TRY |
| *Pisum fulvum* | Fabaceae | Fabales | C3 | 149 | N.A. |
| *Pisum sativum* | Fabaceae | Fabales | C3 | 156 | LEDA |
|  |  |  |  | 25,149,162 | N.A. |
|  |  |  |  | 163 | TRY |
| *Plagiobothrys nothofulvus* | Boraginaceae | Boraginales | C3 | 143 | BIEN |
| *Plantago debilis* | Plantaginaceae | Lamiales | C3 | 145,169,174 | AusTraits |
| *Plantago erecta* | Plantaginaceae | Lamiales | C3 | 143 | BIEN |
| *Plantago lagopus* | Plantaginaceae | Lamiales | C3 | 157 | BIEN |
| *Plantago major* | Plantaginaceae | Lamiales | C3 | 97,158 | BIEN |
|  |  |  |  | 164,166,176,183–185 | LEDA |
|  |  |  |  | 16,144 | TRY |
| *Poa annua* | Poaceae | Poales | C3 | 97,158 | BIEN |
|  |  |  |  | 1,144 | TRY |
|  |  |  |  | 154 | LEDA |
| *Podolepis canescens* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Podolepis lessonii* | Asteraceae | Asterales | C3 | 105,145 | AusTraits |
| *Podotheca angustifolia* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Podotheca gnaphalioides* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Pogonolepis muelleriana* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Polycnemum arvense* | Amaranthaceae | Caryophyllales | C3 | 95 | TRY |
| *Polygonum aviculare* | Polygonaceae | Caryophyllales | C4 | 159 | AusTraits |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 95 | TRY |
|  |  |  |  | 154 | LEDA |
| *Poranthera microphylla* | Phyllanthaceae | Malpighiales | C3 | 145,168,169,186 | AusTraits |
| *Ptilotus gaudichaudii* | Amaranthaceae | Caryophyllales | C3 | 145,146,174 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Ranunculus sceleratus* | Ranunculaceae | Ranunculales | C3 | 159 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Raphanus raphanistrum* | Brassicaceae | Brassicales | C3 | 16,92,163 | TRY |
| *Raphanus sativus* | Brassicaceae | Brassicales | C3 | 176 | LEDA |
| *Rapistrum rugosum* | Brassicaceae | Brassicales | C3 | 92 | TRY |
| *Reseda phyteuma* | Resedaceae | Brassicales | C3 | 148 | LEDA |
| *Rhodanthe chlorocephala* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Rhodanthe citrina* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Rhodanthe laevis* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Rhodanthe manglesii* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Rhodanthe microglossa* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Rhodanthe polycephala* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Rhodanthe polygalifolia* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Rhodanthe pygmaea* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Rhodanthe spicata* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Rhodanthe stricta* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Roepera iodocarpa* | Zygophyllaceae | Zygophyllales | C3 | 145,146,174 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Rorippa palustris* | Brassicaceae | Brassicales | C3 | 159 | AusTraits |
| *Rostraria cristata* | Poaceae | Poales | C3 | 2,23,144 | TRY |
|  |  |  |  | 5,122 | BIEN |
|  |  |  |  | 150 | N.A. |
| *Rostraria pumila* | Poaceae | Poales | C3 | 145 | AusTraits |
| *Rudbeckia hirta* | Asteraceae | Asterales | C3 | 171 | BIEN |
|  |  |  |  | 164,185 | LEDA |
| *Sabulina douglasii* | Caryophyllaceae | Caryophyllales | C3 | 142 | BIEN |
| *Salicornia europaea* | Amaranthaceae | Caryophyllales | C3 | 95 | TRY |
| *Scandix iberica* | Apiaceae | Apiales | C3 | 92 | TRY |
| *Schoenia cassiniana* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Schoenus apogon* | Cyperaceae | Poales | C3 | 168,180 | AusTraits |
| *Scolymus maculatus* | Asteraceae | Asterales | C3 | 92 | TRY |
| *Secale cereale* | Poaceae | Poales | C3 | 149,150,162 | N.A. |
|  |  |  |  | 163 | TRY |
| *Secale vavilovii* | Poaceae | Poales | C3 | 149 | N.A. |
| *Senecio biserratus* | Asteraceae | Asterales | C3 | 168 | AusTraits |
| *Senecio glomeratus* | Asteraceae | Asterales | C3 | 168 | AusTraits |
| *Senecio glossanthus* | Asteraceae | Asterales | C3 | 146 | AusTraits |
|  |  |  |  | 144 | TRY |
| *Senecio sylvaticus* | Asteraceae | Asterales | C3 | 97,155 | BIEN |
| *Sesamum indicum* | Pedaliaceae | Lamiales | C3 | 141,162 | N.A. |
|  |  |  |  | This study | N.A. |
| *Setaria faberi* | Poaceae | Poales | C4 | 150 | N.A. |
| *Setaria helvola* | Poaceae | Poales | C4 | 170 | LEDA |
| *Setaria italica* | Poaceae | Poales | C4 | 150 | N.A. |
|  |  |  |  | 163 | TRY |
| *Setaria verticillata* | Poaceae | Poales | C4 | 150 | N.A. |
| *Setaria viridis* | Poaceae | Poales | C4 | 95,144 | TRY |
|  |  |  |  | 150 | N.A. |
| *Sigesbeckia orientalis* | Asteraceae | Asterales | C3 | 58,186 | AusTraits |
| *Silene nocturna* | Caryophyllaceae | Caryophyllales | C3 | 145 | AusTraits |
| *Sinapis alba* | Brassicaceae | Brassicales | C3 | 163 | TRY |
| *Sinapis arvensis* | Brassicaceae | Brassicales | C3 | 97 | BIEN |
|  |  |  |  | 154,187 | LEDA |
| *Siphonostegia chinensis* | Orobanchaceae | Lamiales | C3 | 95 | TRY |
| *Sisymbrium cavanillesianum* | Brassicaceae | Brassicales | C3 | 157 | BIEN |
| *Solanum lycopersicum* | Solanaceae | Solanales | C3 | 25,59,141,162 | N.A. |
|  |  |  |  | 60 | BIEN |
|  |  |  |  | This study | N.A. |
| *Solanum physalifolium* | Solanaceae | Solanales | C3 | 159 | AusTraits |
| *Solanum pimpinellifolium* | Solanaceae | Solanales | C3 | 25,141,162 | N.A. |
|  |  |  |  | 60 | BIEN |
|  |  |  |  | This study | N.A. |
| *Sonchus asper* | Asteraceae | Asterales | C3 | 97,158 | BIEN |
| *Sonchus oleraceus* | Asteraceae | Asterales | C3 | 105,145,159 | AusTraits |
|  |  |  |  | 97 | BIEN |
|  |  |  |  | 95,144 | TRY |
| *Sorghum amplum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Sorghum angustum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Sorghum arundinaceum* | Poaceae | Poales | C4 | 141,150 | N.A. |
| *Sorghum bicolor* | Poaceae | Poales | C4 | 141,150,162 | N.A. |
|  |  |  |  | 156 | LEDA |
| *Sorghum ecarinatum* | Poaceae | Poales | C4 | 150 | N.A. |
| *Sorghum timorense* | Poaceae | Poales | C4 | 150 | N.A. |
| *Spergularia purpurea* | Caryophyllaceae | Caryophyllales | C3 | 157 | BIEN |
| *Spergularia rubra* | Caryophyllaceae | Caryophyllales | C3 | 97 | BIEN |
| *Spinacia oleracea* | Amaranthaceae | Caryophyllales | C3 | 35 | N.A. |
| *Stephanomeria virgata* | Asteraceae | Asterales | C3 | 142 | BIEN |
| *Stipa capensis* | Poaceae | Poales | C3 | 150 | N.A. |
|  |  |  |  | 106 | TRY |
| *Streptoglossa cylindriceps* | Asteraceae | Asterales | C3 | 123 | AusTraits |
| *Stuartina muelleri* | Asteraceae | Asterales | C3 | 169 | AusTraits |
| *Suaeda glauca* | Amaranthaceae | Caryophyllales | C4 | 95 | TRY |
| *Suaeda heterophylla* | Amaranthaceae | Caryophyllales | C4 | 95 | TRY |
| *Taeniatherum caputmedusae* | Poaceae | Poales | C3 | 149 | N.A. |
|  |  |  |  | 7 | BIEN |
| *Teesdalia nudicaulis* | Brassicaceae | Brassicales | C3 | 97 | BIEN |
| *Thysanocarpus curvipes* | Brassicaceae | Brassicales | C3 | 142 | BIEN |
| *Tolpis barbata* | Asteraceae | Asterales | C3 | 157 | BIEN |
|  |  |  |  | 153 | AusTraits |
| *Trachymene cyanopetala* | Araliaceae | Apiales | C3 | 145 | AusTraits |
| *Trachymene ornata* | Araliaceae | Apiales | C3 | 145 | AusTraits |
| *Trachymene pilosa* | Araliaceae | Apiales | C3 | 145 | AusTraits |
| *Tragus racemosus* | Poaceae | Poales | C4 | 95 | TRY |
|  |  |  |  | 150 | N.A. |
| *Tribolium echinatum* | Poaceae | Poales | C3 | 150 | N.A. |
| *Tribulus terrestris* | Zygophyllaceae | Zygophyllales | C4 | 95 | TRY |
| *Trichostema lanceolatum* | Lamiaceae | Lamiales | C3 | 143 | BIEN |
| *Trifolium albopurpureum* | Fabaceae | Fabales | C3 | 143 | BIEN |
| *Trifolium angustifolium* | Fabaceae | Fabales | C3 | 159 | AusTraits |
|  |  |  |  | 147,148 | LEDA |
|  |  |  |  | 106 | TRY |
| *Trifolium arvense* | Fabaceae | Fabales | C3 | 105,153,159 | AusTraits |
| *Trifolium campestre* | Fabaceae | Fabales | C3 | 159 | AusTraits |
|  |  |  |  | 71 | TRY |
| *Trifolium cherleri* | Fabaceae | Fabales | C3 | 157 | BIEN |
| *Trifolium ciliolatum* | Fabaceae | Fabales | C3 | 143 | BIEN |
| *Trifolium glomeratum* | Fabaceae | Fabales | C3 | 157 | BIEN |
|  |  |  |  | 145,153,159 | AusTraits |
| *Trifolium gracilentum* | Fabaceae | Fabales | C3 | 143 | BIEN |
| *Trifolium microcephalum* | Fabaceae | Fabales | C3 | 143 | BIEN |
| *Trifolium pilulare* | Fabaceae | Fabales | C3 | 92 | TRY |
| *Trifolium purpureum* | Fabaceae | Fabales | C3 | 92 | TRY |
| *Trifolium repens* | Fabaceae | Fabales | C3 | 97,158,172,173,181 | BIEN |
|  |  |  |  | 159 | AusTraits |
|  |  |  |  | 141,162 | N.A. |
|  |  |  |  | 1,2,71,126,144,178 | TRY |
|  |  |  |  | 166 | LEDA |
| *Trifolium striatum* | Fabaceae | Fabales | C3 | 157 | BIEN |
|  |  |  |  | 153,159 | AusTraits |
| *Trigonella alba* | Fabaceae | Fabales | C3 | 2,144 | TRY |
| *Trigonella foenum-graecum* | Fabaceae | Fabales | C3 | 163 | TRY |
| *Trigonella officinalis* | Fabaceae | Fabales | C3 | 164,167,185 | LEDA |
|  |  |  |  | 163 | TRY |
| *Tripleurospermum inodorum* | Asteraceae | Asterales | C4 | 154 | LEDA |
| *Triptilodiscus pygmaeus* | Asteraceae | Asterales | C3 | 153,168 | AusTraits |
| *Trisetaria panicea* | Poaceae | Poales | C3 | 157 | BIEN |
| *Triticum aestivum* | Poaceae | Poales | C3 | 20,36,61,64,65,150 | N.A. |
|  |  |  |  | 159 | AusTraits |
|  |  |  |  | 188 | TRY |
|  |  |  |  | 154 | LEDA |
| *Triticum dicoccoides* | Poaceae | Poales | C3 | 92 | TRY |
|  |  |  |  | 25,141,162 | N.A. |
| *Triticum monococcum* | Poaceae | Poales | C3 | 149,150 | N.A. |
| *Triticum timopheevii* | Poaceae | Poales | C3 | 150 | N.A. |
| *Triticum turgidum* | Poaceae | Poales | C3 | 25,141,149,162 | N.A. |
|  |  |  |  | 188 | TRY |
| *Urospermum picroides* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Ursinia anthemoides* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Valerianella locusta* | Caprifoliaceae | Dipsacales | C3 | 97 | BIEN |
| *Velleia cycnopotamica* | Goodeniaceae | Asterales | C3 | 145 | AusTraits |
| *Velleia rosea* | Goodeniaceae | Asterales | C3 | 145 | AusTraits |
| *Veronica arvensis* | Plantaginaceae | Lamiales | C3 | 97 | BIEN |
| *Veronica hederifolia* | Plantaginaceae | Lamiales | C3 | 144 | TRY |
| *Veronica persica* | Plantaginaceae | Lamiales | C3 | 155,158 | BIEN |
|  |  |  |  | 154 | LEDA |
|  |  |  |  | 106 | TRY |
| *Vicia ervilia* | Fabaceae | Fabales | C3 | 149 | N.A. |
| *Vicia faba* | Fabaceae | Fabales | C3 | 141,149 | N.A. |
|  |  |  |  | 156 | LEDA |
|  |  |  |  | This study | N.A. |
|  |  |  |  | 163 | TRY |
| *Vicia narbonensis* | Fabaceae | Fabales | C3 | 141,149 | N.A. |
|  |  |  |  | This study | N.A. |
| *Vigna unguiculata* | Fabaceae | Fabales | C3 | 162 | N.A. |
| *Vulpia bromoides* | Poaceae | Poales | C3 | 145,153,177 | AusTraits |
|  |  |  |  | 97 | BIEN |
| *Vulpia ciliata* | Poaceae | Poales | C3 | 157 | BIEN |
|  |  |  |  | 161 | LEDA |
|  |  |  |  | 1,144 | TRY |
| *Vulpia microstachys* | Poaceae | Poales | C3 | 7,142 | BIEN |
| *Vulpia myuros* | Poaceae | Poales | C3 | 105,145 | AusTraits |
|  |  |  |  | 7,97,142,143 | BIEN |
|  |  |  |  | 150 | N.A. |
| *Vulpia octoflora* | Poaceae | Poales | C3 | 142 | BIEN |
| *Wahlenbergia gracilenta* | Campanulaceae | Asterales | C3 | 145,169 | AusTraits |
| *Waitzia acuminata* | Asteraceae | Asterales | C3 | 105,145 | AusTraits |
| *Waitzia nitida* | Asteraceae | Asterales | C3 | 145 | AusTraits |
| *Xanthium strumarium* | Asteraceae | Asterales | C3 | 95,178 | TRY |
| *Yabea microcarpa* | Apiaceae | Apiales | C3 | 143 | BIEN |
| *Zaluzianskya divaricata* | Scrophulariaceae | Lamiales | C3 | 145 | AusTraits |
| *Zea mays* | Poaceae | Poales | C4 | 156 | LEDA |
|  |  |  |  | 188 | TRY |
|  |  |  |  | 150,162 | N.A. |
| *Zornia glochidiata* | Fabaceae | Fabales | C3 | 67 | TRY |
| *Zygophyllum sonderi* | Zygophyllaceae | Zygophyllales | C3 | 144 | TRY |

(e) 13C isotopic composition

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Species** | **Family** | **Order** | **Type** | **Reference** | **Database** |
| *Abelmoschus esculentus* | Malvaceae | Malvales | C3 | This study | N.A. |
| *Abutilon theophrasti* | Malvaceae | Malvales | C3 | 90 | TRY |
| *Acalypha virginica* | Euphorbiaceae | Malpighiales | C3 | 90 | TRY |
| *Adenosma glutinosa* | Plantaginaceae | Lamiales | C3 | 189 | TRY |
| *Aegilops cylindrica* | Poaceae | Poales | C3 | 90 | TRY |
|  |  |  |  | 190 | N.A. |
| *Aeluropus littoralis* | Poaceae | Poales | C4 | 190 | N.A. |
| *Agrostis clavata* | Poaceae | Poales | C3 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Agrostis scabra* | Poaceae | Poales | C3 | 190 | N.A. |
| *Aira caryophyllea* | Poaceae | Poales | C3 | 190 | N.A. |
| *Aira elegantissima* | Poaceae | Poales | C3 | 190 | N.A. |
| *Alopecurus aequalis* | Poaceae | Poales | C3 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Alopecurus carolinianus* | Poaceae | Poales | C3 | 90 | TRY |
| *Alopecurus geniculatus* | Poaceae | Poales | C3 | 189 | TRY |
| *Alopecurus japonicus* | Poaceae | Poales | C3 | 190 | N.A. |
| *Alysicarpus heterophyllus* | Fabaceae | Fabales | C3 | 189 | TRY |
| *Alysicarpus schomburgkii* | Fabaceae | Fabales | C3 | 189 | TRY |
| *Amaranthus cruentus* | Amaranthaceae | Caryophyllales | C3 | This study | N.A. |
| *Amaranthus retroflexus* | Amaranthaceae | Caryophyllales | C4 | 189 | TRY |
| *Amaranthus tuberculatus* | Amaranthaceae | Caryophyllales | C4 | 90 | TRY |
| *Androsace septentrionalis* | Primulaceae | Ericales | C3 | 100 | TRY |
| *Anthoxanthum aristatum* | Poaceae | Poales | C3 | 190 | N.A. |
| *Antinoria agrostidea* | Poaceae | Poales | C3 | 190 | N.A. |
| *Apera interrupta* | Poaceae | Poales | C3 | 190 | N.A. |
| *Apera spica-venti* | Poaceae | Poales | C3 | 190 | N.A. |
| *Arachis hypogaea* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Arachis monticola* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Argemone polyanthemos* | Papaveraceae | Ranunculales | C3 | 90 | TRY |
| *Aristida oligantha* | Poaceae | Poales | C4 | 90 | TRY |
| *Arnebia hispidissima* | Boraginaceae | Boraginales | C3 | 189 | TRY |
| *Artemisia scoparia* | Asteraceae | Asterales | C3 | 95 | TRY |
| *Arthraxon hispidus* | Poaceae | Poales | C4 | 190 | N.A. |
| *Aster subulatus* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Astragalus coquimbensis* | Fabaceae | Fabales | C3 | 189 | TRY |
| *Avena barbata* | Poaceae | Poales | C3 | 190 | N.A. |
| *Avena fatua* | Poaceae | Poales | C3 | 190 | N.A. |
| *Avena sativa* | Poaceae | Poales | C3 | 190 | N.A. |
|  |  |  |  | This study | N.A. |
| *Avena sterilis* | Poaceae | Poales | C3 | This study | N.A. |
| *Beckmannia syzigachne* | Poaceae | Poales | C3 | 190 | N.A. |
| *Bellardia trixago* | Orobanchaceae | Lamiales | C3 | 189 | TRY |
| *Bidens bipinnata* | Asteraceae | Asterales | C3 | 90,189 | TRY |
| *Bidens tinctoria* | Asteraceae | Asterales | C3 | 100 | TRY |
| *Borago officinalis* | Boraginaceae | Boraginales | C3 | This study | N.A. |
| *Bothriochloa pertusa* | Poaceae | Poales | C4 | 27 | China Plant Trait |
| *Brachiaria pubigera* | Poaceae | Poales | C4 | 113 | TRY |
| *Brachiaria reptans* | Poaceae | Poales | C4 | 190 | N.A. |
| *Brassica oleracea* | Brassicaceae | Brassicales | C3 | This study | N.A. |
| *Briza maxima* | Poaceae | Poales | C3 | 190 | N.A. |
| *Briza minor* | Poaceae | Poales | C3 | 190 | N.A. |
| *Bromus carinatus* | Poaceae | Poales | C3 | 190 | N.A. |
| *Bromus commutatus* | Poaceae | Poales | C3 | 190 | N.A. |
| *Bromus hordeaceus* | Poaceae | Poales | C3 | 113 | TRY |
|  |  |  |  | 190 | N.A. |
| *Bromus japonicus* | Poaceae | Poales | C3 | 190 | N.A. |
| *Bromus rigidus* | Poaceae | Poales | C3 | 190 | N.A. |
| *Bromus rubens* | Poaceae | Poales | C3 | 190 | N.A. |
| *Bromus tectorum* | Poaceae | Poales | C3 | 90,100 | TRY |
|  |  |  |  | 190 | N.A. |
| *Camelina microcarpa* | Brassicaceae | Brassicales | C3 | 90 | TRY |
| *Campanula americana* | Campanulaceae | Asterales | C3 | 90 | TRY |
| *Capsicum annuum* | Solanaceae | Solanales | C3 | 189 | TRY |
| *Carduus pycnocephalus* | Asteraceae | Asterales | C3 | 117 | TRY |
| *Catapodium rigidum* | Poaceae | Poales | C3 | 190 | N.A. |
| *Cenchrus echinatus* | Poaceae | Poales | C4 | 190 | N.A. |
| *Cenchrus longispinus* | Poaceae | Poales | C4 | 90 | TRY |
| *Cenchrus spinifex* | Poaceae | Poales | C4 | 190 | N.A. |
| *Centaurea solstitialis* | Asteraceae | Asterales | C3 | 117 | TRY |
| *Chaerophyllum procumbens* | Apiaceae | Apiales | C3 | 90 | TRY |
| *Chaetanthera limbata* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Chamaecrista fasciculata* | Fabaceae | Fabales | C3 | 90 | TRY |
| *Chenopodiastrum simplex* | Amaranthaceae | Caryophyllales | C3 | 90 | TRY |
| *Chenopodium acuminatum* | Amaranthaceae | Caryophyllales | C3 | 95,189 | TRY |
| *Chenopodium fremontii* | Amaranthaceae | Caryophyllales | C3 | 100 | TRY |
| *Chenopodium vulvaria* | Amaranthaceae | Caryophyllales | C3 | 100 | TRY |
| *Chloris radiata* | Poaceae | Poales | C4 | 190 | N.A. |
| *Chloris virgata* | Poaceae | Poales | C3 | 95,189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Cicer arietinum* | Fabaceae | Fabales | C3 | 191 | N.A. |
| *Cicer reticulatum* | Fabaceae | Fabales | C3 | 191 | N.A. |
| *Coelachne japonica* | Poaceae | Poales | C3 | 190 | N.A. |
| *Coix lacryma-jobi* | Poaceae | Poales | C4 | 190 | N.A. |
| *Coldenia procumbens* | Boraginaceae | Boraginales | C3 | 189 | TRY |
| *Conium maculatum* | Apiaceae | Apiales | C3 | 90 | TRY |
| *Conobea multifida* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Corchorus tridens* | Malvaceae | Malvales | C3 | 189 | TRY |
| *Cosmos parviflorus* | Asteraceae | Asterales | C3 | 100 | TRY |
| *Croton capitatus* | Euphorbiaceae | Malpighiales | C3 | 90 | TRY |
| *Croton monanthogynus* | Euphorbiaceae | Malpighiales | C3 | 90 | TRY |
| *Cruckshanksia pumila* | Rubiaceae | Gentianales | C3 | 189 | TRY |
| *Cynosurus echinatus* | Poaceae | Poales | C3 | 190 | N.A. |
| *Cyperus acuminatus* | Cyperaceae | Poales | C3 | 90 | TRY |
| *Cyperus aquatilis* | Cyperaceae | Poales | C3 | 189 | TRY |
| *Cyperus leptocarpus* | Cyperaceae | Poales | C4 | 189 | TRY |
| *Dactyloctenium aegyptium* | Poaceae | Poales | C4 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Dactyloctenium giganteum* | Poaceae | Poales | C4 | 190 | N.A. |
| *Dalea polygonoides* | Fabaceae | Fabales | C3 | 100 | TRY |
| *Damrongia clarkeana* | Gesneriaceae | Lamiales | C3 | 27 | China Plant Trait |
| *Desmodium brownii* | Fabaceae | Fabales | C3 | 189 | TRY |
| *Dicoma tomentosa* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Digera muricata* | Amaranthaceae | Caryophyllales | C3 | 189 | TRY |
| *Digitaria bicornis* | Poaceae | Poales | C4 | 113 | TRY |
| *Digitaria ciliaris* | Poaceae | Poales | C4 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Digitaria henryi* | Poaceae | Poales | C4 | 190 | N.A. |
| *Digitaria leptalea* | Poaceae | Poales | C4 | 190 | N.A. |
| *Digitaria radicosa* | Poaceae | Poales | C4 | 190 | N.A. |
| *Digitaria sanguinalis* | Poaceae | Poales | C4 | 90 | TRY |
| *Digitaria setigera* | Poaceae | Poales | C4 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Digitaria violascens* | Poaceae | Poales | C4 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Dimeria ornithopoda* | Poaceae | Poales | C4 | 190 | N.A. |
| *Dracocephalum moldavica* | Lamiaceae | Lamiales | C3 | 189 | TRY |
| *Drymaria molluginea* | Caryophyllaceae | Caryophyllales | C3 | 100 | TRY |
| *Dysphania aristata* | Amaranthaceae | Caryophyllales | C3 | 95 | TRY |
| *Echinochloa glabrescens* | Poaceae | Poales | C4 | 190 | N.A. |
| *Echinochloa muricata* | Poaceae | Poales | C4 | 90 | TRY |
| *Echinochloa oryzoides* | Poaceae | Poales | C4 | 190 | N.A. |
| *Eleusine coracana* | Poaceae | Poales | C4 | 190 | N.A. |
| *Eleusine indica* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 190 | N.A. |
| *Ellisia nyctelea* | Boraginaceae | Boraginales | C3 | 90 | TRY |
| *Enneapogon polyphyllus* | Poaceae | Poales | C4 | 113 | TRY |
| *Eragrostis amabilis* | Poaceae | Poales | C4 | 189 | TRY |
| *Eragrostis arenicola* | Poaceae | Poales | C4 | 189 | TRY |
| *Eragrostis cilianensis* | Poaceae | Poales | C4 | 90,95 | TRY |
|  |  |  |  | 190 | N.A. |
| *Eragrostis ciliaris* | Poaceae | Poales | C3 | 189 | TRY |
| *Eragrostis cummingii* | Poaceae | Poales | C4 | 113,189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Eragrostis mexicana* | Poaceae | Poales | C4 | 100 | TRY |
| *Eragrostis minor* | Poaceae | Poales | C4 | 95,189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Eragrostis multicaulis* | Poaceae | Poales | C3 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Eragrostis pectinacea* | Poaceae | Poales | C4 | 90 | TRY |
| *Eragrostis pilosa* | Poaceae | Poales | C4 | 190 | N.A. |
| *Eragrostis tephrosanthos* | Poaceae | Poales | C4 | 189 | TRY |
| *Eriachne aristidea* | Poaceae | Poales | C4 | 113 | TRY |
| *Eriachne ciliata* | Poaceae | Poales | C4 | 113 | TRY |
| *Erigeron annuus* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Erigeron philadelphicus* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Erigeron strigosus* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Eriocaulon sexangulare* | Eriocaulaceae | Poales | C3 | 189 | TRY |
| *Eriochloa contracta* | Poaceae | Poales | C4 | 90 | TRY |
| *Eriochloa procera* | Poaceae | Poales | C4 | 190 | N.A. |
| *Eriochloa villosa* | Poaceae | Poales | C4 | 190 | N.A. |
| *Eriogonum contiguum* | Polygonaceae | Caryophyllales | C3 | 189 | TRY |
| *Eriogonum pharnaceoides* | Polygonaceae | Caryophyllales | C3 | 100 | TRY |
| *Eruca vesicaria* | Brassicaceae | Brassicales | C3 | 120 | TRY |
| *Erythranthe glabrata* | Phrymaceae | Lamiales | C3 | 90 | TRY |
| *Euphorbia glanduligera* | Euphorbiaceae | Malpighiales | C3 | 189 | TRY |
| *Euphorbia glyptosperma* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
| *Euphorbia humifusa* | Euphorbiaceae | Malpighiales | C4 | 189 | TRY |
| *Euphorbia maculata* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
| *Euphorbia missurica* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
| *Euphorbia nutans* | Euphorbiaceae | Malpighiales | C4 | 90 | TRY |
| *Euphorbia serpyllifolia* | Euphorbiaceae | Malpighiales | C3 | 100 | TRY |
| *Euphorbia spathulata* | Euphorbiaceae | Malpighiales | C3 | 90 | TRY |
| *Filago desertorum* | Asteraceae | Asterales | C3 | 120 | TRY |
| *Fimbristylis aestivalis* | Cyperaceae | Poales | C4 | 189 | TRY |
| *Geigeria alata* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Geranium carolinianum* | Geraniaceae | Geraniales | C3 | 90 | TRY |
| *Gisekia africana* | Gisekiaceae | Caryophyllales | C3 | 189 | TRY |
| *Gisekia diffusa* | Gisekiaceae | Caryophyllales | C4 | 189 | TRY |
| *Grubovia dasyphylla* | Amaranthaceae | Caryophyllales | C3 | 95 | TRY |
| *Gutierrezia dracunculoides* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Hainardia cylindrica* | Poaceae | Poales | C3 | 190 | N.A. |
| *Hedeoma hispida* | Lamiaceae | Lamiales | C3 | 90 | TRY |
| *Helianthus agrestis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus annuus* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | 39 | BIEN |
| *Helianthus anomalus* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Helianthus argophyllus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus debilis* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus deserticola* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Helianthus neglectus* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Helianthus praecox* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Hibiscus trionum* | Malvaceae | Malvales | C3 | 90 | TRY |
| *Hordeum distichon* | Poaceae | Poales | C3 | 190 | N.A. |
| *Hordeum murinum* | Poaceae | Poales | C3 | 190 | N.A. |
| *Hordeum pusillum* | Poaceae | Poales | C3 | 90 | TRY |
| *Hordeum spontaneum* | Poaceae | Poales | C3 | 190 | N.A. |
| *Hordeum vulgare* | Poaceae | Poales | C3 | 190 | N.A. |
| *Hypericum gramineum* | Hypericaceae | Malpighiales | C3 | 123 | AusTraits |
| *Hypertelis cerviana* | Molluginaceae | Caryophyllales | C4 | 189 | TRY |
| *Impatiens furcillata* | Balsaminaceae | Ericales | C3 | 95 | TRY |
|  |  |  |  | 27 | China Plant Trait |
| *Incarvillea sinensis* | Bignoniaceae | Lamiales | C3 | 189 | TRY |
| *Indigofera astragalina* | Fabaceae | Fabales | C3 | 189 | TRY |
| *Indigofera cordifolia* | Fabaceae | Fabales | C3 | 189 | TRY |
| *Isachne globosa* | Poaceae | Poales | C3 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Isachne lutchuensis* | Poaceae | Poales | C3 | 190 | N.A. |
| *Isachne nipponensis* | Poaceae | Poales | C3 | 190 | N.A. |
| *Iva annua* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Ixeris chinensis* | Asteraceae | Asterales | C3 | 95 | TRY |
|  |  |  |  | 27 | China Plant Trait |
| *Justicia debilis* | Acanthaceae | Lamiales | C3 | 189 | TRY |
| *Justicia procumbens* | Acanthaceae | Lamiales | C3 | 189 | TRY |
| *Kali collinum* | Amaranthaceae | Caryophyllales | C4 | 95,189 | TRY |
| *Kalimeris altaica* | Asteraceae | Asterales | C3 | 95,189 | TRY |
| *Kaokochloa nigrirostris* | Poaceae | Poales | C4 | 189 | TRY |
| *Koelpinia linearis* | Asteraceae | Asterales | C3 | 120 | TRY |
| *Krigia caespitosa* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Kummerowia striata* | Fabaceae | Fabales | C3 | 95 | TRY |
| *Lachnagrostis filiformis* | Poaceae | Poales | C3 | 190 | N.A. |
| *Lactuca canadensis* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Lactuca ludoviciana* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Lactuca saligna* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Lactuca sativa* | Asteraceae | Asterales | C3 | This study | N.A. |
| *Lactuca serriola* | Asteraceae | Asterales | C3 | 90 | TRY |
|  |  |  |  | This study | N.A. |
| *Laennecia schiedeana* | Asteraceae | Asterales | C3 | 100 | TRY |
| *Lagurus ovatus* | Poaceae | Poales | C3 | 190 | N.A. |
| *Laportea canadensis* | Urticaceae | Rosales | C3 | 90 | TRY |
| *Lepidium densiflorum* | Brassicaceae | Brassicales | C3 | 90,100 | TRY |
| *Leptochloa fusca* | Poaceae | Poales | C3 | 90,113 | TRY |
|  |  |  |  | 190 | N.A. |
| *Leptochloa panicea* | Poaceae | Poales | C4 | 190 | N.A. |
| *Leucas urticifolia* | Lamiaceae | Lamiales | C3 | 189 | TRY |
| *Leucheria cummingii* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Linum australe* | Linaceae | Malpighiales | C3 | 100 | TRY |
| *Linum stelleroides* | Linaceae | Malpighiales | C3 | 189 | TRY |
| *Linum sulcatum* | Linaceae | Malpighiales | C3 | 90 | TRY |
| *Lobelia chevalieri* | Campanulaceae | Asterales | C3 | 189 | TRY |
| *Lolium rigidum* | Poaceae | Poales | C3 | 190 | N.A. |
| *Lotus corniculatus* | Fabaceae | Fabales | C3 | 131 | TRY |
| *Lupinus kingii* | Fabaceae | Fabales | C3 | 100 | TRY |
| *Malesherbia multiflora* | Passifloraceae | Malpighiales | C3 | 189 | TRY |
| *Malvastrum hispidum* | Malvaceae | Malvales | C3 | 90 | TRY |
| *Melanocenchris jacquemontii* | Poaceae | Poales | C4 | 189 | TRY |
| *Melinis repens* | Poaceae | Poales | C4 | 189 | TRY |
| *Microstegium fasciculatum* | Poaceae | Poales | C4 | 190 | N.A. |
| *Microstegium japonicum* | Poaceae | Poales | C4 | 190 | N.A. |
| *Microstegium nudum* | Poaceae | Poales | C4 | 190 | N.A. |
| *Microstegium vimineum* | Poaceae | Poales | C4 | 190 | N.A. |
| *Mollugo verticillata* | Molluginaceae | Caryophyllales | C3 | 90,189 | TRY |
| *Muhlenbergia minutissima* | Poaceae | Poales | C4 | 100 | TRY |
| *Muhlenbergia ramulosa* | Poaceae | Poales | C4 | 100 | TRY |
| *Myosotis verna* | Boraginaceae | Boraginales | C3 | 90 | TRY |
| *Nama dichotoma* | Boraginaceae | Boraginales | C3 | 100 | TRY |
| *Nolana aplocaryoides* | Solanaceae | Solanales | C3 | 189 | TRY |
| *Nolana elegans* | Solanaceae | Solanales | C3 | 189 | TRY |
| *Notoceras bicorne* | Brassicaceae | Brassicales | C3 | 120 | TRY |
| *Oenothera curtiflora* | Onagraceae | Myrtales | C3 | 90 | TRY |
| *Oenothera filiformis* | Onagraceae | Myrtales | C3 | 90 | TRY |
| *Oenothera nana* | Onagraceae | Myrtales | C3 | 189 | TRY |
| *Oldenlandia herbacea* | Rubiaceae | Gentianales | C3 | 189 | TRY |
| *Oligochaeta ramosa* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Oplismenus burmanni* | Poaceae | Poales | C3 | 190 | N.A. |
| *Oryza sativa* | Poaceae | Poales | C3 | 190 | N.A. |
| *Oxybasis glauca* | Amaranthaceae | Caryophyllales | C3 | 95 | TRY |
| *Panicum bisulcatum* | Poaceae | Poales | C3 | 190 | N.A. |
|  |  |  |  | 192 | AusTraits |
| *Panicum capillare* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 190 | N.A. |
| *Panicum dichotomiflorum* | Poaceae | Poales | C4 | 90 | TRY |
|  |  |  |  | 190 | N.A. |
| *Panicum flexuosum* | Poaceae | Poales | C4 | 27 | China Plant Trait |
| *Panicum laevinode* | Poaceae | Poales | C4 | 192 | AusTraits |
| *Panicum miliaceum* | Poaceae | Poales | C4 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Panicum mindanaense* | Poaceae | Poales | C4 | 192 | AusTraits |
| *Panicum trachyrhachis* | Poaceae | Poales | C4 | 192 | AusTraits |
| *Panicum verrucosum* | Poaceae | Poales | C4 | 190 | N.A. |
| *Parietaria pensylvanica* | Urticaceae | Rosales | C3 | 90 | TRY |
| *Paronychia arabica* | Caryophyllaceae | Caryophyllales | C3 | 120 | TRY |
| *Pennisetum glaucum* | Poaceae | Poales | C4 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
|  |  |  |  | This study | N.A. |
| *Perilla frutescens* | Lamiaceae | Lamiales | C3 | 189 | TRY |
| *Perityle emoryi* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Perotis patens* | Poaceae | Poales | C4 | 113 | TRY |
| *Persicaria bungeana* | Polygonaceae | Caryophyllales | C3 | 90 | TRY |
| *Persicaria maculosa* | Polygonaceae | Caryophyllales | C3 | 90 | TRY |
| *Phalaris canariensis* | Poaceae | Poales | C3 | 190 | N.A. |
| *Phalaris minor* | Poaceae | Poales | C3 | 190 | N.A. |
| *Phalaris paradoxa* | Poaceae | Poales | C3 | 190 | N.A. |
| *Phaseolus vulgaris* | Fabaceae | Fabales | C3 | 54 | TRY |
| *Phleum paniculatum* | Poaceae | Poales | C3 | 190 | N.A. |
| *Phoebanthus tenuifolius* | Asteraceae | Asterales | C3 | 39 | BIEN |
| *Phyllanthus maderaspatensis* | Phyllanthaceae | Malpighiales | C3 | 189 | TRY |
| *Pilea pumila* | Urticaceae | Rosales | C3 | 90 | TRY |
| *Plantago argyrea* | Plantaginaceae | Lamiales | C3 | 100 | TRY |
| *Plantago aristata* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Plantago ciliata* | Plantaginaceae | Lamiales | C3 | 120 | TRY |
| *Plantago litorea* | Plantaginaceae | Lamiales | C3 | 189 | TRY |
| *Plantago ovata* | Plantaginaceae | Lamiales | C3 | 120 | TRY |
| *Plantago patagonica* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Plantago rhodosperma* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Plantago virginica* | Plantaginaceae | Lamiales | C3 | 90 | TRY |
| *Poa annua* | Poaceae | Poales | C3 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Poa crassinervis* | Poaceae | Poales | C3 | 190 | N.A. |
| *Poa hisauchii* | Poaceae | Poales | C3 | 190 | N.A. |
| *Poa nepalensis* | Poaceae | Poales | C3 | 190 | N.A. |
| *Polycarpaea corymbosa* | Caryophyllaceae | Caryophyllales | C4 | 189 | TRY |
| *Polygonum aviculare* | Polygonaceae | Caryophyllales | C3 | 90,100 | TRY |
| *Polygonum douglasii* | Polygonaceae | Caryophyllales | C3 | 100 | TRY |
| *Polygonum ramosissimum* | Polygonaceae | Caryophyllales | C3 | 90 | TRY |
| *Polygonum tenue* | Polygonaceae | Caryophyllales | C3 | 90 | TRY |
| *Polypogon fugax* | Poaceae | Poales | C3 | 190 | N.A. |
| *Polypogon monspeliensis* | Poaceae | Poales | C3 | 190 | N.A. |
| *Portulaca bicolor* | Portulacaceae | Caryophyllales | C3 | 189 | TRY |
| *Pseudognaphalium obtusifolium* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Rostraria cristata* | Poaceae | Poales | C3 | 113 | TRY |
|  |  |  |  | 190 | N.A. |
| *Rottboellia cochinchinensis* | Poaceae | Poales | C4 | 190 | N.A. |
| *Rudbeckia amplexicaulis* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Sacciolepis indica* | Poaceae | Poales | C3 | 190 | N.A. |
|  |  |  |  | 189 | TRY |
| *Salomonia cantoniensis* | Polygalaceae | Fabales | C3 | 189 | TRY |
| *Schismus barbatus* | Poaceae | Poales | C3 | 120 | TRY |
| *Schizachyrium brevifolium* | Poaceae | Poales | C4 | 190 | N.A. |
| *Schizachyrium crinizonatum* | Poaceae | Poales | C4 | 113 | TRY |
| *Schizanthus laetus* | Solanaceae | Solanales | C3 | 189 | TRY |
| *Secale cereale* | Poaceae | Poales | C3 | 190 | N.A. |
| *Senecio carnosulus* | Asteraceae | Asterales | C3 | 189 | TRY |
| *Sesamum indicum* | Pedaliaceae | Lamiales | C3 | This study | N.A. |
| *Sesamum schinzianum* | Pedaliaceae | Lamiales | C3 | 189 | TRY |
| *Setaria barbata* | Poaceae | Poales | C4 | 190 | N.A. |
| *Setaria faberi* | Poaceae | Poales | C4 | 190 | N.A. |
| *Setaria helvola* | Poaceae | Poales | C4 | 90,189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Setaria italica* | Poaceae | Poales | C4 | 189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Setaria plicata* | Poaceae | Poales | C3 | 27 | China Plant Trait |
| *Setaria verticillata* | Poaceae | Poales | C4 | 190 | N.A. |
| *Setaria viridis* | Poaceae | Poales | C4 | 90,95,189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Sicyos angulatus* | Cucurbitaceae | Cucurbitales | C3 | 90 | TRY |
| *Silene antirrhina* | Caryophyllaceae | Caryophyllales | C3 | 90 | TRY |
| *Solanum lycopersicum* | Solanaceae | Solanales | C3 | This study | N.A. |
| *Solanum pimpinellifolium* | Solanaceae | Solanales | C3 | This study | N.A. |
| *Solanum ptychanthum* | Solanaceae | Solanales | C3 | 90 | TRY |
| *Solanum rostratum* | Solanaceae | Solanales | C3 | 90 | TRY |
| *Sonchus asper* | Asteraceae | Asterales | C3 | 90 | TRY |
| *Sorghum bicolor* | Poaceae | Poales | C4 | 190 | N.A. |
|  |  |  |  | 193 | AusTraits |
| *Sorghum intrans* | Poaceae | Poales | C4 | 113 | TRY |
| *Spergularia diandra* | Caryophyllaceae | Caryophyllales | C3 | 120 | TRY |
| *Sphenopholis obtusata* | Poaceae | Poales | C3 | 90 | TRY |
| *Sporobolus fertilis* | Poaceae | Poales | C4 | 190 | N.A. |
| *Sporobolus piliferus* | Poaceae | Poales | C4 | 190 | N.A. |
| *Stipa capensis* | Poaceae | Poales | C3 | 120 | TRY |
| *Stipagrostis namibensis* | Poaceae | Poales | C4 | 189 | TRY |
| *Stipagrostis subacaulis* | Poaceae | Poales | C4 | 189 | TRY |
| *Streptoglossa cylindriceps* | Asteraceae | Asterales | C3 | 123 | AusTraits |
| *Suaeda glauca* | Amaranthaceae | Caryophyllales | C3 | 95,189 | TRY |
| *Tephrosia capillipes* | Fabaceae | Fabales | C3 | 189 | TRY |
| *Teucrium canadense* | Lamiaceae | Lamiales | C3 | 90 | TRY |
| *Torilis arvensis* | Apiaceae | Apiales | C3 | 90 | TRY |
| *Tragus racemosus* | Poaceae | Poales | C4 | 95,189 | TRY |
|  |  |  |  | 190 | N.A. |
| *Tribulus pentandrus* | Zygophyllaceae | Zygophyllales | C4 | 189 | TRY |
| *Tribulus terrestris* | Zygophyllaceae | Zygophyllales | C4 | 90,95,189 | TRY |
|  |  |  |  | 27 | China Plant Trait |
| *Trifolium repens* | Fabaceae | Fabales | C3 | 90,189 | TRY |
| *Trigastrotheca pentaphylla* | Molluginaceae | Caryophyllales | C3 | 189 | TRY |
| *Trigonella officinalis* | Fabaceae | Fabales | C3 | 90 | TRY |
| *Triodanis leptocarpa* | Campanulaceae | Asterales | C3 | 90 | TRY |
| *Triticum aestivum* | Poaceae | Poales | C3 | 190 | N.A. |
| *Vicia faba* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Vicia narbonensis* | Fabaceae | Fabales | C3 | This study | N.A. |
| *Viola polypoda* | Violaceae | Malpighiales | C3 | 189 | TRY |
| *Viola pusilla* | Violaceae | Malpighiales | C3 | 189 | TRY |
| *Vulpia bromoides* | Poaceae | Poales | C3 | 190 | N.A. |
| *Vulpia myuros* | Poaceae | Poales | C3 | 190 | N.A. |
| *Vulpia octoflora* | Poaceae | Poales | C3 | 190 | N.A. |
| *Whiteochloa multiciliata* | Poaceae | Poales | C4 | 113 | TRY |
| *Xanthisma gracile* | Asteraceae | Asterales | C3 | 100 | TRY |
| *Xanthium strumarium* | Asteraceae | Asterales | C3 | 90,189 | TRY |
| *Zea luxurians* | Poaceae | Poales | C4 | 189 | TRY |
| *Zea mays* | Poaceae | Poales | C4 | 190 | N.A. |

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