**Supplementary material 1.** Floristic diversity documented in the*Phytolacca acinosa* assemblages across the study sites in Kashmir Himalaya, India.

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| **Species Name** | **Family** | **Habit** | **Life Form** |
| *Abies pindrow* (Royle ex D.Don) Royle | Pinaceae | Tree | Perennial |
| *Acer caesiumWall. ex* Brandis | Sapindaceae | Tree | Perennial |
| *Achillea millefolium* L*.* | Asteraceae | Herb | Perennial |
| *Actaea kashmiriana* (J.Compton & Hedd.) J.Compton | Ranunculaceae | Herb | Perennial |
| *Adiantum capillus-veneris* L. | Pteridaceae | Fern | Perennial |
| *Aesculus indica* (Wall. ex Cambess.) Hook. | Sapindaceae | Tree | Perennial |
| *Ailanthus altissima* (Mill.) Swingle | Simaroubaceae | Tree | Perennial |
| *Ajuga bracteosa* Wall. ex Benth. | Lamiaceae | HerbZ | Perennial |
| *Amaranthus caudatus* L. | Amaranthaceae | Herb | Annual |
| *Anagallis arvensis* L. | Primulaceae | Herb | Annual |
| *Anthemis cotula* Blanco | Asteraceae | Herb | Annual |
| *Arctium lappa* L. | Asteraceae | Herb | Perennial |
| *Arisaema jacquemontii* Blume | Araceae | Herb | Perennial |
| *Arisaema tortuosum* (Wall.) Schott | Araceae | Herb | Perennial |
| *Artemisia absinthium* L. | Asteraceae | Herb | Perennial |
| *Atropa acuminata* Royle ex Lindl. | Solanaceae | Herb | Perennial |
| *Bellis perennis* L. | Asteraceae | Herb | Perennial |
| *Berberis lycium* Royle | Berberidaceae | Shrub | Perennial |
| *Bistorta amplexicaulis* (D.Don) Greene | Polygonaceae | Herb | Perennial |
| *Bromus catharticus* Vahl | Poaceae | Herb | Perennial |
| *Bromus japonicus*Houtt. | Poaceae | Herb | Annual |
| *Cannabis sativa* L. | Cannabaceae | Herb | Annual |
| *Capsella bursa-pastoris*(L.) Medik. | Brassicaceae | Herb | Annual |
| *Cardamine macrophylla* Willd. | Brassicaceae | Herb | Perennial |
| *Carpesium cernuum* L. | Asteraceae | Herb | Perennial |
| *Cedrus deodara* (Roxb. ex D.Don) G.Don | Pinaceae | Tree | Perennial |
| *Celtis australis* L. | Cannabaceae | Tree | Perennial |
| *Centaurea iberica* Trevir. ex Spreng. | Asteraceae | Herb | Perennial |
| *Cerastium cerastoides* (L.) Britton | Caryophyllaceae | Herb | Perennial |
| *Cerastium glomeratum* Thuill. | Caryophyllaceae | Herb | Annual |
| *Chaerophyllum villosum* Wall. ex DC. | Apiaceae | Herb | Annual |
| *Chenopodium album* L. | Amaranthaceae | Herb | Annual |
| *Chrysopogon fulvus* (Spreng.) Chiov. | Poaceae | Herb | Perennial |
| *Cichorium intybus* L. | Asteraceae | Herb | Perennial |
| *Circaea alpina* L. | Onagraceae | Herb | Perennial |
| *Cirsium arvense* (L.) Scop. | Asteraceae | Herb | Perennial |
| *Cirsium falconeri* (Hook.f.) Petr. | Asteraceae | Herb | Perennial |
| *Clinopodium vulgare* L. | Lamiaceae | Herb | Perennial |
| *Convolvulus arvensis* L. | Convolvulaceae | Herb | Perennial |
| *Corydalis cornuta*Royle | Papaveraceae | Herb | Annual |
| *Corydalis govaniana* Wall. | Papaveraceae | Herb | Perennial |
| *Crataegus songarica* K.Koch | Rosaceae | Tree | Perennial |
| *Crepis sancta* (L.) Bornm. | Asteraceae | Herb | Perennial |
| *Cynodon dactylon* (L.) Pers. | Poaceae | Herb | Perennial |
| *Cynoglossum lanceolatum* Forssk. | Boraginaceae | Herb | Perennial |
| *Cynoglossum wallichii* G.Don | Boraginaceae | Herb | Biennial |
| *Cypripedium cordigerum* D.Don | Orchidaceae | Herb | Perennial |
| *Datura stramonium* L. | Solanaceae | Herb | Annual |
| *Delphinium roylei* Munz | Ranunculaceae | Herb | Perennial |
| *Digitalis purpurea* L. | Plantaginaceae | Herb | Biennial |
| *Digitaria sanguinalis* (L.) Scop. | Poaceae | Herb | Annual |
| *Dioscorea deltoidea* Wall. ex Griseb. | Dioscoreaceae | Climber | Perennial |
| *Elsholtzia ciliata* (Thunb.) Hyl. | Lamiaceae | Herb | Annual |
| *Epilobium hirsutum*L. | Onagraceae | Herb | Perennial |
| *Equisetum arvense* L. | Equisetaceae | Fern | Perennial |
| *Erigeron canadensis* L. | Asteraceae | Herb | Annual |
| *Erigeron multiradiatus* (Lindl. ex DC.) Benth. | Asteraceae | Herb | Annual |
| *Ficus carica* L. | Moraceae | Shrub | Perennial |
| *Filipendula vestita* (Wall. ex G.Don) Maxim. | Rosaceae | Herb | Perennial |
| *Fragaria nubicola*(Lindl. ex Hook.f.) Lacaita | Rosaceae | Herb | Perennial |
| *Galinsoga parviflora* Cav. | Asteraceae | Herb | Annual |
| *Galium aparine* L. | Rubiaceae | Herb | Perennial |
| *Galium palustre* L. | Rubiaceae | Herb | Annual |
| *Geranium nepalense* Sweet | Geraniaceae | Herb | Perennial |
| *Geranium pratense* L. | Geraniaceae | Herb | Perennial |
| *Geranium wallichianum* D.Don ex Sweet | Geraniaceae | Herb | Perennial |
| *Geum elatum*Wall. ex G.Don | Solanaceae | Herb | Perennial |
| *Geum urbanum* L. | Solanaceae | Herb | Perennial |
| *Hackelia uncinata* (Benth.) C.E.C.Fisch. | Boraginaceae | Herb | Perennial |
| *Hedera helix* L. | Araliaceae | Climber | Perennial |
| *Hemerocallis fulva* (L.) L. | Xanthorrhoeaceae | Herb | Perennial |
| *Hyoscyamus niger* L. | Solanaceae | Herb | Annual |
| *Hypericum perforatum* L. | Hypericaceae | Herb | Perennial |
| *Impatiens brachycentra* Kar. & Kir. | Balsaminaceae | Herb | Annual |
| *Impatiens glandulifera*Royle | Balsaminaceae | Herb | Annual |
| *Impatiens scabrida* DC. | Balsaminaceae | Herb | Annual |
| *Impatiens thomsonii* Hook.f. | Balsaminaceae | Herb | Annual |
| *Indigofera heterantha* Brandis | Fabaceae | Shrub | Perennial |
| *Isodon rugosus* (Wall. ex Benth.) Codd | Lamiaceae | Shrub | Perennial |
| *Juglans regia* L. | Juglandaceae | Tree | Perennial |
| *Lactuca serriola* L. | Asteraceae | Herb | Annual |
| *Lamium album* L. | Lamiaceae | Herb | Perennial |
| *Lavatera cachemiriana* Cambess. | Malvaceae | Herb | Perennial |
| *Lepidium virginicum* L. | Brassicaceae | Herb | Annual |
| *Leucanthemum vulgare* (Vaill.) Lam. | Asteraceae | Herb | Perennial |
| *Lolium perenne* L. | Poaceae | Herb | Perennial |
| *Malva neglecta* Wallr. | Malvaceae | Herb | Perennial |
| *Malva sylvestris* L. | Malvaceae | Herb | Biennial |
| *Marrubium vulgare* L. | Lamiaceae | Herb | Perennial |
| *Medicago sativa* L. | Fabaceae | Herb | Perennial |
| *Mentha longifolia* (L.) L. | Lamiaceae | Herb | Perennial |
| *Myosotis alpestris* F.W.Schmidt | Boraginaceae | Herb | Perennial |
| *Myriactis nepalensis* Less. | Asteraceae | Herb | Perennial |
| *Myriactis wallichii* Less. | Asteraceae | Herb | Annual |
| *Nepeta cataria* L. | Lamiaceae | Herb | Perennial |
| *Nepeta erecta* (Royle ex Benth.) Benth. | Lamiaceae | Herb | Perennial |
| *Oxalis acetosella* L. | Oxalidaceae | Herb | Perennial |
| *Oxalis corniculata* L. | Oxalidaceae | Herb | Perennial |
| *Paeonia emodi* Royle | Paeoniaceae | Herb | Perennial |
| *Persicaria capitata* (Buch.-Ham. ex D.Don) H.Gross | Polygonaceae | Herb | Perennial |
| *Persicaria hydropiper* (L.) Delarbre | Polygonaceae | Herb | Annual |
| *Persicaria maculosa* Gray | Polygonaceae | Herb | Annual |
| *Phytolacca acinosa*Roxb. | Phytolaccaceae | Herb | Perennial |
| *Pinus wallichiana* A.B.Jacks. | Pinaceae | Tree | Perennial |
| *Plantago lanceolata* L. | Plantaginaceae | Herb | Perennial |
| *Plantago ovata* Forssk. | Plantaginaceae | Herb | Perennial |
| *Poa angustifolia* L. | Poaceae | Herb | Perennial |
| *Poa pratensis* L. | Poaceae | Herb | Perennial |
| *Polygonum aviculare* L. | Polygonaceae | Herb | Annual |
| *Portulaca oleracea* L. | Portulacaceae | Herb | Annual |
| *Potentilla indica* (Andrews) Th.Wolf | Rosaceae | Herb | Perennial |
| *Potentilla nepalensis* Hook. | Rosaceae | Herb | Perennial |
| *Primula denticulata* Sm. | Primulaceae | Herb | Perennial |
| *Prunella vulgaris* L. | Lamiaceae | Herb | Perennial |
| *Ranunculus laetus* Wall. ex Hook. f. & J.W. Thomson | Ranunculaceae | Herb | Perennial |
| *Ranunculus sceleratus* L. | Ranunculaceae | Herb | Annual |
| *Robinia pseudoacacia* L. | Fabaceae | Tree | Perennial |
| *Rosa canina* L. | Rosaceae | Shrub | Perennial |
| *Rosa webbiana* Wall. ex Royle | Rosaceae | Shrub | Perennial |
| *Rubus fruticosus* L. | Rosaceae | Shrub | Perennial |
| *Rumex acetosa* L. | Polygonaceae | Herb | Perennial |
| Rumex dentatus L. | Polygonaceae | Herb | Annual |
| *Rumex nepalensis* Spreng. | Polygonaceae | Herb | Perennial |
| *Salix alba* L. | Salicaceae | Tree | Perennial |
| *Salvia nubicola* Wall. ex Sweet | Lamiaceae | Herb | Perennial |
| *Sambucus wightiana* Wall. ex Wight & Arn. | Adoxaceae | Herb | Perennial |
| *Selinum wallichianum* (DC.) Raizada & H.O. Saxena | Apiaceae | Herb | Annual |
| *Senecio chrysanthemoides* DC. | Asteraceae | Herb | Perennial |
| *Senecio vulgaris* L. | Asteraceae | Herb | Annual |
| *Setaria viridis* (L.) P.Beauv. | Poaceae | Herb | Annual |
| *Sibbaldia cuneata* Schouw ex Kunze | Rosaceae | Herb | Perennial |
| *Sigesbeckia orientalis* L. | Asteraceae | Herb | Annual |
| *Silene baccifera* (L.) Roth | Caryophyllaceae | Herb | Perennial |
| *Silene coronaria* (Desr.) Clairv. ex Rchb. | Caryophyllaceae | Herb | Perennial |
| *Silene vulgaris* (Moench) Garcke | Caryophyllaceae | Herb | Perennial |
| *Sisymbrium officinale*(L.) Scop. | Brassicaceae | Herb | Annual |
| *Skimmia anquetilia* N.P.Taylor & Airy Shaw | Rutaceae | Shrub | Perennial |
| *Solanum nigrum* L. | Solanaceae | Herb | Annual |
| *Sonchus oleraceus* (L.) L. | Asteraceae | Herb | Annual |
| *Sorbaria tomentosa* (Lindl.) Rehder | Rosaceae | Shrub | Perennial |
| *Spergularia rubra*(L.) J.Presl & C.Presl | Caryophyllaceae | Herb | Annual |
| *Stachys floccosa* Benth. | Lamiaceae | Herb | Perennial |
| *Stellaria media* (L.) Vill. | Caryophyllaceae | Herb | Annual |
| *Stipa sibirica* (L.) Lam. | Poaceae | Herb | Perennial |
| *Strobilanthes wallichii* Nees | Acanthaceae | Herb | Perennial |
| *Taraxacum officinale* F.H.Wigg. | Asteraceae | Herb | Perennial |
| *Taxus wallichiana*Zucc. | Taxaceae | Tree | Perennial |
| *Thymus linearis* Benth. | Lamiaceae | Herb | Perennial |
| *Trifolium dubium* Sibth. | Fabaceae | Herb | Annual |
| *Trifolium pratense* L. | Fabaceae | Herb | Perennial |
| *Trifolium repens* L. | Fabaceae | Herb | Perennial |
| *Trigonella foenum-graecum* L. | Fabaceae | Herb | Annual |
| *Tussilago farfara* L. | Asteraceae | Herb | Perennial |
| *Urtica dioica* L. | Urticaceae | Herb | Perennial |
| *Verbascum thapsus* L. | Scrophulariaceae | Herb | Biennial |
| *Veronica laxa* Benth. | Plantaginaceae | Herb | Perennial |
| *Veronica persica* Poir. | Plantaginaceae | Herb | Annual |
| *Viburnum grandiflorum* Wall. ex DC. | Adoxaceae | Herb | Perennial |
| *Viola biflora* L. | Violaceae | Herb | Perennial |
| *Viola odorata* L. | Violaceae | Herb | Perennial |
| *Xanthium spinosum* L. | Asteraceae | Herb | Annual |