

# Contents

<b>1</b>	<b>Introduction: Lesser Himalayas—Pakistan and Medicinal Plant Wealth.....</b>	<b>1</b>
1.1	Pakistan .....	1
1.1.1	Physical Regions .....	2
1.1.2	Biodiversity .....	2
1.1.3	Ecological Zones.....	2
1.1.4	Critical Ecosystems.....	3
1.2	Himalayan Range.....	3
1.2.1	Topography.....	5
1.2.2	Glaciers and Rivers .....	5
1.2.3	Climate .....	5
1.2.4	Flora .....	7
1.2.5	Fauna .....	8
1.2.6	Livestock .....	9
1.2.7	Culture.....	9
1.2.8	Occupations.....	9
1.3	Medicinal Plants.....	10
1.4	Folk Recipes.....	12
1.5	Diagnosis and Prescription .....	13
1.6	Processing of Medicinal Plants.....	13
1.6.1	Collection and Identification .....	13
1.6.2	Preservation .....	14
1.6.3	Storage.....	14
1.6.4	Marketing .....	14
	References.....	14

<b>2 Ethnobotanical Aspects .....</b>	<b>17</b>
2.1 Ethnobotany .....	17
2.2 Medicinal Uses.....	20
2.3 Use of Plants as Food.....	21
2.4 Fuelwood Species .....	22
2.5 Fodder Species .....	24
2.6 Agricultural Implements .....	27
2.7 Fencing and Hedges.....	28
2.8 Construction Material .....	28
2.9 Miscellaneous Uses.....	28
2.10 Grafting .....	29
2.11 Beekeeping.....	29
2.12 Marketing of Medicinal Plants.....	30
2.13 Anthropogenic Pressure .....	32
2.13.1 Fire .....	32
2.13.2 Browsing .....	33
2.13.3 Grazing.....	33
2.13.4 Grass Cutting .....	34
2.13.5 Lopping .....	34
2.13.6 Torchwood .....	34
2.13.7 Climatic Factors .....	35
2.13.8 Wild Animals and Insects .....	35
2.13.9 Agriculture .....	35
2.14 Recommendations.....	36
References.....	37
<b>3 Medicinal Plants Inventory .....</b>	<b>39</b>
3.1 Section A Pteridophytes.....	39
3.1.1 <i>Adiantum capillus-veneris</i> Linn .....	39
3.1.2 <i>Equisetum debile</i> Roxb.....	41
3.1.3 <i>Pteridium aquilinum</i> (L.) Kuhn .....	43
3.2 Section B Gymnosperms.....	45
3.2.1 <i>Abies pindrow</i> Royle .....	45
3.2.2 <i>Pinus roxburghii</i> Sargent .....	47
3.2.3 <i>Pinus wallichiana</i> A.B. Jackson .....	48
3.3 Section C (1) Angiosperms (Monocots) .....	50
3.3.1 <i>Allium cepa</i> Linn. ....	50
3.3.2 <i>Allium sativum</i> Linn. ....	52
3.3.3 <i>Acorus calamus</i> L.....	53
3.3.4 <i>Arisaema utile</i> Hook.f.ex Schott .....	55
3.3.5 <i>Colchicum luteum</i> Baker .....	57
3.3.6 <i>Aloe vera</i> Linn. ....	59
3.3.7 <i>Cynodon dactylon</i> (L.) Pers. ....	60
3.3.8 <i>Cyperus rotundus</i> Linn. ....	61
3.3.9 <i>Polygonatum verticillatum</i> All. ....	64

3.3.10	<i>Sorghum halepense</i> (L.) Pers. ....	65
3.3.11	<i>Triticum aestivum</i> Linn. ....	67
3.3.12	<i>Zea mays</i> Linn. ....	69
3.4	Section C (2) Angiosperms (Dicots).....	71
3.4.1	<i>Acacia catechu</i> (L.F.) Wild.....	71
3.4.2	<i>Acacia modesta</i> Wall. ....	72
3.4.3	<i>Acacia nilotica</i> Linn. ....	74
3.4.4	<i>Achyranthes aspera</i> Linn. ....	77
3.4.5	<i>Ajuga bracteosa</i> Wall., ex Benth. ....	79
3.4.6	<i>Amaranthus viridis</i> Linn. ....	80
3.4.7	<i>Argyrobolium roseum</i> (Camb.) Jaub. & Spach ....	82
3.4.8	<i>Berberis lycium</i> Royle ....	83
3.4.9	<i>Bergenia ciliata</i> (Haw.) Sternb. ....	86
3.4.10	<i>Boerhaavia procumbens</i> Banks ex Roxb. ....	87
3.4.11	<i>Bombax ceiba</i> Linn. ....	89
3.4.12	<i>Brassica campestris</i> Linn. ....	91
3.4.13	<i>Calotropis procera</i> (Wild) R. Br. ....	92
3.4.14	<i>Cannabis sativa</i> Linn. ....	94
3.4.15	<i>Carissa opaca</i> Stapf-ex Haines ....	96
3.4.16	<i>Cassia fistula</i> Linn. ....	99
3.4.17	<i>Cedrela toona</i> Roxb. ex Wild.....	100
3.4.18	<i>Chenopodium ambrosioides</i> Linn. ....	102
3.4.19	<i>Cichorium intybus</i> Linn. ....	104
3.4.20	<i>Cissampelos pariera</i> L. ....	106
3.4.21	<i>Citrus limon</i> (Linn.) Burm. ....	108
3.4.22	<i>Clematis grata</i> Wall. ....	109
3.4.23	<i>Convolvulus arvensis</i> Linn. ....	111
3.4.24	<i>Cuscuta reflexa</i> Roxb. ....	112
3.4.25	<i>Dalbergia sissoo</i> Roxb. ....	114
3.4.26	<i>Datura innoxia</i> Miller ....	116
3.4.27	<i>Debregeasia saeneb</i> (Forssk.) Heper and Wood ....	117
3.4.28	<i>Dodonaea viscosa</i> Linn. ....	119
3.4.29	<i>Euphorbia prostrata</i> Ait ....	121
3.4.30	<i>Ficus carica</i> Forssk. ....	122
3.4.31	<i>Ficus virgata</i> Wall. ex Roxb. ....	124
3.4.32	<i>Fumaria indica</i> (Hausskan) Pugsley.....	126
3.4.33	<i>Grewia tenax</i> Drum. ex Burret.....	127
3.4.34	<i>Hedera helix</i> Alin Auct.....	129
3.4.35	<i>Indigofera garadiana</i> Wall. ....	131
3.4.36	<i>Ipomoea nil</i> (Linn.) Roth.....	132
3.4.37	<i>Justicia adhatoda</i> (Linn.) Nees ....	134
3.4.38	<i>Mallotus philippensis</i> (Lam.) Muell. Arg. ....	137
3.4.39	<i>Melia azedarach</i> Linn. ....	139
3.4.40	<i>Mentha longifolia</i> (Linn.) Huds ....	141
3.4.41	<i>Mentha royleana</i> Linn. ....	143

3.4.42	<i>Myrsine africana</i> Linn.....	145
3.4.43	<i>Olea ferruginea</i> Royle.....	147
3.4.44	<i>Otostegia limbata</i> (Benth.) Boiss .....	148
3.4.45	<i>Oxalis corniculata</i> Linn. ....	150
3.4.46	<i>Paeonia emodi</i> Wall. ex Royle .....	152
3.4.47	<i>Papaver somniferum</i> L. ....	153
3.4.48	<i>Phyla nodiflora</i> (L.) Greene .....	155
3.4.49	<i>Phyllanthus emblica</i> Linn. ....	156
3.4.50	<i>Pimpinella diversifolia</i> (Wall.) D.C. ....	158
3.4.51	<i>Pistacia chinensis</i> Bge. ....	160
3.4.52	<i>Plantago lanceolata</i> L.....	162
3.4.53	<i>Plantago major</i> Linn. ....	163
3.4.54	<i>Portulaca oleracea</i> L.....	165
3.4.55	<i>Prunus persica</i> (Linn.) Batsch .....	166
3.4.56	<i>Punica granatum</i> Linn. ....	168
3.4.57	<i>Quercus incana</i> Roxb. ....	171
3.4.58	<i>Quercus leucotrichophora</i> A. Camus .....	172
3.4.59	<i>Ranunculus laetis</i> Wall. ex Hook. F. & Thoms. ....	174
3.4.60	<i>Rhus chinensi</i> L. ....	175
3.4.61	<i>Rosa brunonii</i> Lindley.....	178
3.4.62	<i>Rosa indica</i> Linn. ....	179
3.4.63	<i>Rumex dentatus</i> Linn.....	180
3.4.64	<i>Rumex hastatus</i> D. Don.....	182
3.4.65	<i>Salvia moorcroftiana</i> Wall. ex Benth.....	184
3.4.66	<i>Sageretia brandrethiana</i> Atich., J.L.S. ....	185
3.4.67	<i>Solanum nigrum</i> L.....	187
3.4.68	<i>Solanum surratense</i> Burm. f.....	189
3.4.69	<i>Tagetes minuta</i> Linn. ....	190
3.4.70	<i>Taraxacum officinale</i> Weber.....	192
3.4.71	<i>Tribulus terrestris</i> L.....	193
3.4.72	<i>Trichodesma indicum</i> (L.) R. Br. ....	195
3.4.73	<i>Tylophora hirsuta</i> Linn.....	197
3.4.74	<i>Verbascum thapsus</i> Linn. ....	198
3.4.75	<i>Viola canescens</i> Wall. ex Roxb. ....	199
3.4.76	<i>Vitex negundo</i> Linn.....	201
3.4.77	<i>Vitis vinifera</i> Linn.....	203
3.4.78	<i>Withania somnifera</i> (L.) Dunal .....	204
3.4.79	<i>Woodfordia fruticosa</i> (L.) S. kurz.....	206
3.4.80	<i>Zanthoxylum armatum</i> DC. Prodr.....	208
3.4.81	<i>Zizyphus numalaria</i> Linn. ....	209
3.4.82	<i>Zizyphus oxyphylla</i> Edgew. ....	211
	References.....	213
	<b>Index</b> .....	217

Medicinal Plant Biodiversity of Lesser  
Himalayas-Pakistan

Abbasi, A.M.; Khan, M.A.; Ahmad, M.; Zafar, M.

2012, XIII, 220 p., Hardcover

ISBN: 978-1-4614-1574-9