



Available online freely at www.isisn.org

Bioscience Research

Print ISSN: 1811-9506 Online ISSN: 2218-3973

Journal by Innovative Scientific Information & Services Network



RESEARCH ARTICLE

BIOSCIENCE RESEARCH, 2021 18(4): 2585-2589.

OPEN ACCESS

Ethnobotanical study of the flora of Chail valley, Hindukush range, Swat Pakistan

Syed Fazl-i-Hadi and Mir Ajab Khan

Department of Plant Sciences, Quaid-i-Azam University Islamabad, Islamabad, Pakistan

Supplementary material

Table 1: Ethnobotanically important plants of chail valley

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
1.	<i>Abelmoschus esculentus</i> (L.) Moench	Bhindai	Malvaceae	MP, V
2.	<i>Abies pindrow</i> Royle	Achar	Pinaceae	AA, B, Cr, Dec, F, FH, FW, MI, MP, T
3.	<i>Achillea millefolium</i> L.	Karkara	Asteraceae	Fod, MP
4.	<i>Achyranthes aspera</i> L. var. <i>pubescens</i> (Moq.) C.C.Townsend	Spay Butay	Amaranthaceae	Fod, MP, V
5.	<i>Aconitum chasmanthum</i> Stapf ex Holmes	The Ghra Zahar	Ranunculaceae	MP, Pois
6.	<i>Aconitum heterophyllum</i> Wall. ex Royle	Zahar mora	Ranunculaceae	MP, Myth
7.	<i>Aconitum violaceum</i> Jacq. ex Stapf	Zahar mora, Da Ghra Zahar	Ranunculaceae	MP, Pois
8.	<i>Acorus calamus</i> L.	Skha Waja	Araceae	IR, MP, VM, SB
9.	<i>Adiantum capillus-veneris</i> L.	Bar Sumbal	Adiantaceae	MP, O, SS
10.	<i>Adiantum incisum</i> Forssk	Sumbal	Adiantaceae	MP, Nam

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
11.	<i>Adiantum venustum</i> D. Don	Sumbal	Adiantaceae	MP, SS
12.	<i>Adonis aestivalis</i> L.	Banra Kot	Ranunculaceae	MP, Fod
13.	<i>Aesculus indica</i> (Wall. ex Camb.) Hk. f.	Jawaz, Majab	Hippocastanaceae	AA, F, Fod, FW, GB, MP, Oil, SH, VM, T
14.	<i>Ailanthus altissima</i> (Mill.) Swingle	Aseela Shandai, Bakianra	Simaroubaceae	AA, F, Fod, FW, MP, T
15.	<i>Ajuga bracteosa</i> Wall. ex Bth.	Khawaga Booti, Da Ghra Booti, Spina Gooti	Lamiaceae	MP, VM
16.	<i>Ajuga parviflora</i> Bth.	Tarkha Booti, Da Sami Booti, Gooti	Lamiaceae	AL, MP
17.	<i>Allium cepa</i> L.	Piaz	Alliaceae	Cond, FI, Ink, MP, Sal, SS, V
18.	<i>Allium sativum</i> L.	Ooga	Alliaceae	Cond, FI, MP, Myth, VM
19.	<i>Alnus nitida</i> (Spach) Endl.	Girae	Betulaceae	AA, Cos, EP, FW, MP, SR, T
20.	<i>Amaranthus caudatus</i> L.	Chalveray	Amaranthaceae	MP, V
21.	<i>Amaranthus spinosus</i> L.	Chalveray	Amaranthaceae	Fod, MP, V
22.	<i>Amaranthus viridis</i> L.	Ganrhar	Amaranthaceae	MP, V
23.	<i>Ammi visnaga</i> (L.) Lam.	Sperkai, Gangahai	Apiaceae	MP
24.	<i>Anagallis arvensis</i> L. var. <i>coerulea</i> (L.) Gouan.	Ghutyalai	Primulaceae	MP
25.	<i>Andrachne cordifolia</i> (Wall. ex Dcne.) Muell. Arg.	Krahcai, Gulpinsa, Gat Butay	Euphorbiaceae	FW, MP, Pois, VM
26.	<i>Aquilegia pubiflora</i> Wall. ex Royle var. <i>pubiflora</i>	Oudi Gulay	Ranunculaceae	MP
27.	<i>Arenaria griffithii</i> Boiss.	Kinar	Caryophyllaceae	MP
28.	<i>Arisaema jacquemontii</i> Blume	Wara Marjarai, Zahar Butay	Araceae	MP, Pois, SB, VM
29.	<i>Aristida adscensionis</i> L.	Mashkar	Poaceae	Br, Fod
30.	<i>Aristida cyanantha</i> Nees ex Steud.	Mashaanrae	Poaceae	Br, Fod

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
31.	<i>Arnebia linearifolia</i> DC.	Balu	Boraginaceae	MP
32.	<i>Artemisia biennis</i> Willd.	Tarkha	Asteraceae	Fod, MP, SB, SS, VM
33.	<i>Artemisia scoparia</i> Waldst. & Kit.	Naray Jaukai	Asteraceae	Fod , MP, Nam
34.	<i>Artemisia vulgaris</i> L.	Jaukai	Asteraceae	Br, Fod, MP
35.	<i>Asparagus adscendens</i> Roxb.	Thendorai	Liliaceae	MP, VM
36.	<i>Asparagus gracilis</i> Royle	Haloon, Thendorai	Liliaceae	Fod, MP, V
37.	<i>Asparagus officinalis</i> L.	Thendorai	Liliaceae	MP
38.	<i>Asplenium ceterach</i> L.	Bughma Butay	Aspleniaceae	MP
39.	<i>Astragalus graveolens</i> Buch.-Ham. ex Bth.	Sur Azghay	Papilionaceae	Fod, MP, TB
40.	<i>Astragalus psilocentros</i> Fisch.	Mamol, Kandiar	Papilionaceae	Fod, FH
41.	<i>Atropa acuminata</i> Royle ex Miers	Bargak	Solanaceae	MP, Pois
42.	<i>Avena fatua</i> L.	Jamdaray	Poaceae	Fod, MP
43.	<i>Berberis baluchistanica</i> Ahrendt	Ziar Largay, Thor Kwaray	Berberidaceae	FH, MP
44.	<i>Berberis lycium</i> Royle	Speen Kwaray	Berberidaceae	FH, Fr, MP, VM
45.	<i>Bergenia ciliata</i> (Haw.) Sternb. var. <i>ciliata</i> Yeo	Makanpath, Da Gat Panra, Zakhm-e-Hayat	Saxifragaceae	MP, VM
46.	<i>Bergenia stracheyi</i> (Hk.f. & Thoms.) Engl.	Da Gat Panra	Saxifragaceae	MP
47.	<i>Betula utilis</i> D. Don.	Braj, Birch	Betulaceae	AA, F, FW, Pap
48.	<i>Bistorta affinis</i> (D. Don) Green	Chookroo	Polygonaceae	MP
49.	<i>Bistorta amplexicaulis</i> (D. Don) Green	Anjabar, Tarva Panra	Polygonaceae	MP, VM, V
50.	<i>Brassica rapa</i> L. ssp. <i>campestris</i> (L.) Clapham	Sharsham	Brassicaceae	Fod, MP, Oil, V, VM
51.	<i>Brassica rapa</i> L. ssp. <i>rapa</i>	Tepar	Brassicaceae	MP, V
52.	<i>Bromus japonicus</i> Thunb. ex	Jokai	Poaceae	Fod, MS

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
	Murr.			
53.	<i>Buddleja crispa</i> Bth.	Booi	Buddlejaceae	FP, MP
54.	<i>Buglossoides arvensis</i> (L.) Johnston	Rodinkawa	Boraginaceae	Fod, MP
55.	<i>Bunium persicum</i> (Boiss.) Fedtsch.	Thora Zeera, Zankai	Apiaceae	Cond, FI, MP, VM
56.	<i>Bupleurum longicaule</i> Wall. ex DC. var. <i>ramosum</i>	Gillo	Apiaceae	MP
57.	<i>Buxus wallichiana</i> Baill.	Shamshad	Buxaceae	Bask, FW, MP, Nam, TB,
58.	<i>Calendula arvensis</i> L.	Ziar Gulae	Asteraceae	HBA, MP
59.	<i>Calendula officinalis</i> L.	Zair Gulae	Asteraceae	Dye, MP, O
60.	<i>Calotropis procera</i> (Ait.) Ait. f. ssp. <i>hamiltonii</i> (Wight) Ali	Spulmai	Asclepiadaceae	Dye, MP, TB
61.	<i>Caltha alba</i> Camb. var. <i>alba</i>	Makhanr	Ranunculaceae	MP, V
62.	<i>Cannabis sativa</i> L.	Bhang	Cannabaceae	AD, HBA, MP
63.	<i>Capsella bursa-pastoris</i> (L.) Medik.	Bambesa	Brassicaceae	Fod, MP
64.	<i>Capsicum annuum</i> L.	Marchakay	Solanaceae	Cond, MP, Nam
65.	<i>Cardamine macrophylla</i> Willd.	Charg Butay	Brassicaceae	EP, MP
66.	<i>Carissa opaca</i> Stapf ex Haines	Garanda	Apocynaceae	MP, FW
67.	<i>Cedrus deodara</i> (Roxb. ex Lamb.) G. Don	Ranzra, Diyar	Pinaceae	B, Cons, F, FH, FW, T,GB, MP, VM
68.	<i>Celtis caucasica</i> Willd.	Tagha	Ulmaceae	AA, Fod, Fr, FW, MP, Myth
69.	<i>Cenchrus pennisetiformis</i> Hochst. & Steud. ex Steud.	Pisho Lamae	Poaceae	Fod
70.	<i>Cerastium dichotomum</i> L.	Sachrra	Caryophyllaceae	Fod, MP, V
71.	<i>Chenopodium album</i> L.	Sarmay	Chenopodiaceae	Fod, MP, V
72.	<i>Chenopodium ambrosioides</i> L.	Benakai, Skha Butay	Chenopodiaceae	MP
73.	<i>Chenopodium botrys</i> L.	Skha Khawra, Kamasal Sarmay	Chenopodiaceae	Fod, MP, V

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
74.	<i>Chenopodium murale</i> L.	Benakai, Chalveray	Chenopodiaceae	Fod, MP, VM, V
75.	<i>Chrysopogon gryllus</i> (L.) Trin. Ssp. <i>echinulatus</i> (Nees) T. A. Cope	Lasha Wakha	Poaceae	Fod, Pack
76.	<i>Chrysopogon serrulatus</i> Trin.	Spin Wakha	Poaceae	Fod, Pack
77.	<i>Cichorium intybus</i> L.	Han, Hanshamakay, Kasni	Asteraceae	MP, VM, V
78.	<i>Clematis gouraina</i> Roxb.ex DC.	Zelai	Ranunculaceae	Fod, MP, P
79.	<i>Clematis grata</i> Wall.	Zelai, Chenjanwala	Ranunculaceae	Fod, MP, V
80.	<i>Colchicum luteum</i> Baker	Ziargulae, Suranjan-e- talkh	Colchicaceae	MP
81.	<i>Colocasia esculenta</i> (L.) Schott.	Kachalu	Araceae	MP, V
82.	<i>Convolvulus arvensis</i> L.	Sahar Gulai	Convolvulaceae	AD, Fod, MP
83.	<i>Conyza canadensis</i> (L.) Corgn.	Mirch Butay	Asteraceae	Fod, MP
84.	<i>Coriandrum sativum</i> L.	Dhania	Apiaceae	Ch, FI, MP, Oil, Sal, V
85.	<i>Corydalis govaniiana</i> Wall. var. <i>govaniiana</i>	Desi Mamera	Fumariaceae	MP, Myth
86.	<i>Corydalis stewartii</i> Fedde	Mamera	Fumariaceae	MP
87.	<i>Cotoneaster microphyllus</i> Wall. ex Lindl.	Kharawa, Mamanra	Rosaceae	AA, FW, Fod, MP
88.	<i>Cucumis sativus</i> L.	Badrang	Cucurbitaceae	MP, Sal
89.	<i>Cucurbita maxima</i> Duch. ex Lam.	Khog Kaddu, Halwa Kaddu	Cucurbitaceae	Conf, MP, Nam, V
90.	<i>Cuminum cyminum</i> L.	Speena Zeera	Apiaceae	Cond, FI, MP
91.	<i>Cupressus sempervirens</i> L.	Saru	Cupressaceae	F, MP
92.	<i>Cuscuta reflexa</i> Roxb.	Prevatkai, Neladarai	Cuscutaceae	AL, MP
93.	<i>Cynodon dactylon</i> (L.) Pres.	Kabal	Poaceae	Fod, MP, O
94.	<i>Cynoglossum glochidiatum</i> Wall. ex Bth.	Shamakai	Boraginaceae	MP

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
95.	<i>Cynoglossum lanceolatum</i> Forssk.	Pachy	Boraginaceae	Fod
96.	<i>Cyperus rotundus</i> L.	Dela	Cyperaceae	MP
97.	<i>Daphne mucronata</i> Royle	Leghunai	Thymelaeaceae	MP, FW, VM
98.	<i>Datisca cannabina</i> L.	Kalbari, Band Butay	Datisceae	MP
99.	<i>Datura innoxia</i> Mill.	Bhatura	Solanaceae	MP, Pois
100.	<i>Datura stramonium</i> L.	Bhatura	Solanaceae	MP, Pois, VM
101.	<i>Debregeasia salicifolia</i> (D. Don) Rendle	Chingel, Ajalay	Urticaceae	Bask, Fl, Fr, FH, FW, MP, TR
102.	<i>Delphinium denudatum</i> Wall. ex Hk. & Thoms.	Da Kunoo Zaila	Ranunculaceae	MP, O, VM
103.	<i>Desmodium elegans</i> DC.	Chamkat	Papilionaceae	MP, SB,
104.	<i>Desmodium podocarpum</i> DC.	Chamra	Papilionaceae	MP
105.	<i>Dicanthium annulatum</i> (Forssk.) Stapf	Wakha, Pastha Kabal	Poaceae	Fod
106.	<i>Dioscorea deltoidea</i> Wall. ex Kunth	Kanis	Dioscoraceae	FP, MP
107.	<i>Diospyros kaki</i> L.	Persimmon	Ebenaceae	AA, Fr, MP, FW
108.	<i>Diospyros lotus</i> L.	Thor Amluk	Ebenaceae	AA, F, Fr, Fod, FW, MP, T, VM
109.	<i>Dodonaea viscosa</i> (L.) Jacq.	Ghuraskay	Sapindaceae	FP, FW, FH, MP, VM
110.	<i>Dryopteris filix-mas</i> (L.) Scott.	Kunjay	Dryopteridaceae	MP, Pois
111.	<i>Duchesnea indica</i> (Andr.) Focke	Da Zamakay Toot	Rosaceae	Fr, Fod, MP
112.	<i>Echinops echinatus</i> Roxb.	Kareza	Asteraceae	MP
113.	<i>Echinops griffithianus</i> Boiss.	Narai Kareza	Asteraceae	MP
114.	<i>Elaeagnus angustifolia</i> L. var. <i>angustifolia</i>	Ghanum rangay	Elaeagnaceae	FW, FH, MP,
115.	<i>Equisetum arvense</i> L.	Bandakay	Equisetaceae	AL, HT, MP
116.	<i>Euphorbia helioscopia</i> L.	Prevatkai	Euphorbiaceae	FP, MP, Pois
117.	<i>Euphorbia prostrata</i> Ait.	Prevatkai, Warmaga	Euphorbiaceae	MP

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
118.	<i>Euphorbia wallichii</i> Hk. f.	Prevatkai	Euphorbiaceae	MP, Pois
119.	<i>Ficus carica</i> L. ssp <i>carica</i>	Inzar	Moraceae	AA, F, Fr, Fod, FH, FW, MP, Myth, Nam
120.	<i>Ficus palmata</i> Forssk.	Inzar	Moraceae	AA, Fr, Fod, FH, FW, MP, SA, T, V
121.	<i>Foeniculum vulgare</i> Mill.	Kagah	Apiaceae	Cond, FI, MP, VM
122.	<i>Fragaria nubicola</i> Lindl. ex Lacaita	Da Zmakay Toot	Rosaceae	Fr, Fod, MP
123.	<i>Fumaria indica</i> (Hauskn.) Pugsley	Papra	Fumariaceae	Fod, MP, VM, V
124.	<i>Funaria hygrometrica</i> Hedw.	Da Gatay Nakreza, Peri Butay	Fumariaceae	MP
125.	<i>Galium aparine</i> L.	Tha Kargha Makhooka, Ganal	Rubiaceae	Fod , MP
126.	<i>Galium asperifolium</i> Wall. var. <i>asperifolium</i>	Tha Kargha Makhooka	Rubiaceae	Fod
127.	<i>Gentianodes kurroo</i> (Royle) Omer, Ali & Qaiser	Nilkent	Gentianaceae	MP
128.	<i>Gentianodes olivieri</i> (Griseb.) Omer, Ali & Qaiser	Bhangara	Gentianaceae	MP
129.	<i>Geranium wallichianum</i> D. Don ex Sweet	Sragarrai, Sra Zela, Rattan jot	Geraniaceae	Fod, MP, MW, VM, V
130.	<i>Grewia optiva</i> Drum. ex Burret	Dhaman	Tiliaceae	Bask, Fod, Fr, FW, MP
131.	<i>Hedera nepalensis</i> K. Koch	Palul Zelai	Araliaceae	Fod, MP, O
132.	<i>Heracleum candicans</i> Wall. Ex.Dc.	Kadu Panra	Apiaceae	MP
133.	<i>Himalrandia tetrasperma</i> (Roxb.) Yamazaki	Kikra, Kukal	Rubiaceae	FP, MP
134.	<i>Hylotelephium ewersii</i> (Ladeb.) H. Ohba	Da Gat Warkharae	Crassulaceae	MP
135.	<i>Hyoscymus niger</i> L.	Dewana Bhang	Solanaceae	MP, VM
136.	<i>Hypericum perforatum</i> L.	Shin Chai	Hypericaceae	MP, VM

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
			(Guttiferae)	
137.	<i>Impatiens bicolor</i> Royle ssp. <i>pseudo bicolor</i> (Grey-Wilson) Y. Nasir	Writh Athrang	Balsaminaceae	Dye, Fod
138.	<i>Impatiens brachycentra</i> Kar. & Kir.	Spin Athrang	Balsaminaceae	Dye, Fod, MP
139.	<i>Impatiens edgeworthii</i> Hook. F.	Ziar Athrang	Balsaminaceae	Dye, Fod, MP,
140.	<i>Indigofera heterantha</i> Wall. Ex Brand. var. <i>heterantha</i>	Ghwareja	Papilionaceae	Fod , FW , HBA, MP, Nam, TR ,
141.	<i>Ipomoea eriocarpa</i> R. Br.	Sahar Gulai	Convolvulaceae	MP, Fod
142.	<i>Iris germanica</i> L.	Qabar Butay	Iridaceae	MP, O
143.	<i>Isodon rugosus</i> (Wall. ex Bth.) Codd	Sperkai, Krachai	Lamiaceae	Fod, HBA, MP
144.	<i>Jasminum humile</i> L.	Rambel Chambel, Yasmin	Oleaceae	Fod, FH, MP, Nam, O, V
145.	<i>Jasminum officinale</i> L.	Spin Rambel Chambel	Oleaceae	Fod, FH, MP, O, Oil
146.	<i>Juglans regia</i> L.	Ghuz	Juglandaceae	AA, Cos, F, Fr, FW, MP, T
147.	<i>Juniperus communis</i> L. var. <i>saxatilis</i> Palls	Gugar	Cupressaceae	Dye, Fr, FW, MP,
148.	<i>Justicia adhatoda</i> L.	Bhaikar	Acanthaceae	HBA, IR, MP, SB, VM
149.	<i>Lagenaria siceraria</i> (Molina) Standley	Gharangay kaddu	Cucurbitaceae	MP, V
150.	<i>Lathyrus aphaca</i> L.	Kurkamanai, Palli	Papilionaceae	EP, Fod, VM
151.	<i>Lathyrus sativus</i> L.	Ghata Chilo	Papilionaceae	Fod, V
152.	<i>Launaea procumbens</i> (Roxb.) Ramayya & Rajagopal	Lali Butay	Asteraceae	Fod, MP, Milk, VM, WU
153.	<i>Lepidium sativum</i> Linn.	Halam	Brassicaceae	MP, Sal, VM
154.	<i>Lespedeza juncea</i> (L. f.) Pers. var. <i>variegata</i> (Camb.) Ali	Oormaray	Papilionaceae	MP, Fod
155.	<i>Lotus corniculatus</i> L. var. <i>corniculatus</i>	Fateh Khana	Papilionaceae	MP

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
156.	<i>Luffa cylindrica</i> (L.) Roem.	Torai	Cucurbitaceae	MP, V
157.	<i>Lycopersicon esculentum</i> Miller	Tamatar	Solanaceae	Fl, KU, MP, Sal, V
158.	<i>Mallotus philippensis</i> (Lam.) Muell.	Kambila, Kamila	Euphorbiaceae	Dye, FW, MP, T, VM
159.	<i>Malva neglecta</i> Wall.	Panerak	Malvaceae	MP, O, V
160.	<i>Marrubium vulgare</i> L.	Gandana	Lamiaceae	MP
161.	<i>Maytenus royleanus</i> (Wall. ex Lawson) Cuf.	Spin Azghakay	Celastraceae	FW, FH, MP, WS
162.	<i>Medicago lupulina</i> L.	Shpeshtaray	Papilionaceae	MP, Fod, V
163.	<i>Medicago polymorpha</i> L.	Shpeshtaray	Papilionaceae	MP, Fod
164.	<i>Melia azedarach</i> L.	Shandai, Bakianra	Meliaceae	F, FW, Fod, MP, VM
165.	<i>Mentha longifolia</i> (L.) L	Velanay	Lamiaceae	Ch, MP, VM
166.	<i>Mentha spicata</i> L.	Zangali Podina	Lamiaceae	Ch, Cond, MP, MW, Sal
167.	<i>Micromeria biflora</i> (Buch.- Ham.ex D. Don) Bth.	Narae Shamakae	Lamiaceae	HBA, MP
168.	<i>Momordica charantia</i> L.	Karela	Cucurbitaceae	MP, V
169.	<i>Monotheca buxifolia</i> (Falc.) A. DC.	Gurgura	Sapotaceae	Fr, Fod, FW, FH, MP, MW, Nam
170.	<i>Morchella esculenta</i> (L.) Pers.	Speena Gujai	Helveliaceae	MP, V
171.	<i>Morus alba</i> L.	Speen Toot	Moraceae	AA, Bask, F, Fr, Fod, FW, MP,
172.	<i>Morus nigra</i> L.	Thor Toot	Moraceae	AA, Bask, F, Fr, Fod, FW, MP,
173.	<i>Myrsine africana</i> L.	Marorang	Myrsinaceae	MP
174.	<i>Narcissus tazetta</i> L.	Gul-e-Nargas	Amaryllidaceae	HBA, MP, Nam, O
175.	<i>Nasturtium officinale</i> R. Br.	Talmera	Brassicaceae	MP, Sal, V
176.	<i>Nepeta cataria</i> L.	Pisho Butay	Lamiaceae	MP
177.	<i>Nepeta erecta</i> (Royle ex Bth.) Bth.	Pisho Butay	Lamiaceae	MP
178.	<i>Nepeta govaniiana</i> (Wall. ex	Pisho Butay	Lamiaceae	MP

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
	Bth.) Bth.			
179.	<i>Nerium oleander</i> L.	Ganderay	Apocynaceae	HBA, MP, O, Pois, SB
180.	<i>Olea ferruginea</i> Royle	Khona	Oleaceae	AA, F, FW, Fod, MP, Myth, Nam
181.	<i>Onosma hispida</i> Wall. ex G. Don	Gaozaban	Boraginaceae	MP
182.	<i>Opuntia dillenii</i> Haw.	Zuqum	Cactaceae	MP
183.	<i>Origanum vulgare</i> L.	Shamakai	Lamiaceae	Fod, MP, VM
184.	<i>Otostegia limbata</i> (Bth.) Boiss.	Speen Azghakay	Lamiaceae	MP, FH
185.	<i>Oxalis corniculata</i> L.	Manzakeen Tarukay	Oxalidaceae	Fod, MP
186.	<i>Paeonia emodi</i> Wall. Ex Royle	Mamekh	Paeoniaceae	MP, VM
187.	<i>Papaver dubium</i> L.	Khash-Khash	Papaveraceae	MP
188.	<i>Papaver rhoeas</i> L.	Zangali Khash-Khash	Papaveraceae	Fod, MP
189.	<i>Papaver somniferum</i> L.	Khash-Khash, Afim, Dodda	Papaveraceae	HBA, MP
190.	<i>Parrotiopsis jacquemontiana</i> (Dcne.) Rehder	Beranj	Hamamelidaceae	AA, Bask, Fod, FW, MS, WS
191.	<i>Periploca aphylla</i> Dcne.	Barrara	Asclepiadaceae	MP, ROP, VM
192.	<i>Persicaria barbata</i> (L.) Hara	Palpulak	Polygo naceae	FP, MP, MR
193.	<i>Phalaris minor</i> Retz.	Wakha	Poaceae	Fod
194.	<i>Phaseolus lunatus</i> L.	Shopar, Kurkhey	Papilionaceae	MP, V
195.	<i>Picea smithiana</i> (Wall.) Boiss.	Achar, Kachhal	Pinaceae	B, Cr, F, FH, FW, MP, T
196.	<i>Pimpinella diversifolia</i> DC.	Watani Kagah	Apiaceae	MP
197.	<i>Pinus roxburghii</i> Sargent	Nakhtar	Pinaceae	AA, Dec, F, Fr, FW, MP, Nam, O, T
198.	<i>Pinus wallichiana</i> A.B. Jackson	Pewuch, Sraf	Pinaceae	AA, Br, Dec, F, FW, HB,O, MI, MP, T
199.	<i>Pistacia chinensis</i> Bunge ssp. <i>integerrima</i> (J.L.S) Rech. f.	Shanai, Kakar Singhi	Anacardiaceae	F, Fod, FW, MP, T

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
200.	<i>Plantago lanceolata</i> L.	Baltanga Jabai	Plantaginaceae	Fod , MP,
201.	<i>Plantago major</i> L.	Ispeghol, Ghata Jabai	Plantaginaceae	Fod , MP
202.	<i>Platanus orientalis</i> L.	Chinar	Platanaceae	AA, F, FW, MP, Nam, O,
203.	<i>Podophyllum emodi</i> Wall. ex Royle	Gangora	Podophyllaceae	MP, Fr,
204.	<i>Polygonatum verticillatum</i> All.	Noor-e-Alam, Baramola	Liliaceae	Milk, MP, VM
205.	<i>Polygonum aviculare</i> L.	Bandakay	Polygonaceae	MP
206.	<i>Polytrichum commune</i> Hedw.	Da Gatay Nakreza, Peri Butay	Polytrichaceae	MP
207.	<i>Portulaca oleracea</i> L.	Warkharay	Portulacaceae	MP, V
208.	<i>Primula denticulata</i> Sm.	Asli Mamera, Da Zmakay Gul	Primulaceae	LK, MP, VM
209.	<i>Prunella vulgaris</i> L.	Kalaveuth, Da Zmakay Gul	Lamiaceae	MP
210.	<i>Prunus armeniaca</i> L.	Khubani	Rosaceae	AA, Fr, Fod, FW, HBA, MP,
211.	<i>Prunus domestica</i> L.	Alucha	Rosaceae	AA, Fr, Fod, FW, HBA, MP,
212.	<i>Prunus persica</i> (L.) Batsch.	Shaltalu	Rosaceae	Fr, Fod, FW, MP,
213.	<i>Pteris vittata</i> L.	Pani Butay	Pteridaceae	MP,V,
214.	<i>Punica granatum</i> L.	Anar, Nangorray	Punicaceae	Cond, FI, FW, Fr, MP, MW, Nam,
215.	<i>Pyrus pashia</i> Ham. Ex D. Don	Shangati Tangai	Rosaceae	Fr, FW, MP
216.	<i>Quercus baloot</i> Griffth.	Ghuara Serai	Fagaceae	AA, FW, Fod, MP, T
217.	<i>Quercus dilatata</i> Royle	Tor Banj	Fagaceae	AA, FW, Fod, GB, MP, PT, VM, WS, T
218.	<i>Quercus incana</i> Roxb.	Spin Banj	Fagaceae	AA, FW, Fod, MP, T
219.	<i>Ranunculus arvensis</i> L.	Ziar Gulay	Ranunculaceae	Fod, FP,
220.	<i>Ranunculus muricatus</i> L.	Ziar Gulay, Quazi Ban	Ranunculaceae	MP, P, VM
221.	<i>Ranunculus sceleratus</i> L.	Jaghagha, Ziar Gulay	Ranunculaceae	MP
222.	<i>Rheum australe</i> D. Don	Choutyal	Polygonaceae	MP, VM, V

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
223.	<i>Rhododendron arboreum</i> Sm.	Gulnamair	Ericaceae	MP, Pois
224.	<i>Ricinus communis</i> L.	Aranda, Harhanda	Euphorbiaceae	MP, Oil
225.	<i>Rosa brunonii</i> Lindl.	Khwarch, Zangali Gulab	Rosaceae	FH, HBA, MP, Nam, O,
226.	<i>Rubus ulmifolius</i> Schott.	Karwara	Rosaceae	Fod, FH, Fr, MP, VM
227.	<i>Rumex dentatus</i> L.	Shalkhey	Polygonaceae	Fod, MP, VM, V
228.	<i>Rumex hastatus</i> D. Don	Tarukay	Polygonaceae	Fod, MP, Sal, V, WU
229.	<i>Saccharum spontaneum</i> L.	Sharghashe, Kahai	Poaceae	Br, Bask, Fod, FH, MS, TR, WT
230.	<i>Sageretia thea</i> (Osbeck) M.C. Johnston var. <i>thea</i>	Mamanra	Rhamnaceae	Fod, MP, Nam
231.	<i>Salix babylonica</i> L.	Aseela Wala	Salicaceae	AA, Bask, Cr, EP, F, Fod, FW, MP, MI, MS, O, ST, T
232.	<i>Salvia lanata</i> Roxb.	Spera Butay	Lamiaceae	MP, V
233.	<i>Salvia moorcroftiana</i> Wall. Ex Bth.	Khardag	Lamiaceae	Cos, MP, VM
234.	<i>Sambucus wightiana</i> Wall. ex Wight & Arn.	Ganoola, Benakai	Sambucaceae	Dye, MP
235.	<i>Sarcococca saligna</i> (D. Don) Muell.-Arg.	Leghunay, Ladanr	Buxaceae	HBA, MP, MS, MS
236.	<i>Saussurea costus</i> (falc.) lipsch.	Kuth	Asteraceae	MP, VM
237.	<i>Saxifraga flagellaris</i> Willd. ex Sternb. ssp. <i>stenophylla</i> (Royle) Hulten	Mergaya	Saxifragaceae	MP
238.	<i>Senecio chrysanthemoides</i> DC.	Gul Butay, Ghopga	Asteraceae	Fod, MP, O, Pois, WU
239.	<i>Sibbaldia cuneata</i> Kuntze	Chotial	Rosaceae	MP
240.	<i>Silene conoidea</i> L.	Bashka Mashora	Caryophyllaceae	Fod, MP,
241.	<i>Silene vulgaris</i> (Moench) Garcke	Mataranga	Caryophyllaceae	Cos, Milk, MP, VM, V

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
242.	<i>Skimmia laureola</i> (DC.) Sieb. & Zucc. ex Walp.	Nazar Panra, Nazar Zela	Rutaceae	FI, Myth, MP, VM
243.	<i>Solanum nigrum</i> L. var. <i>nigrum</i>	Kachmachu	Solanaceae	Fod, MP, V
244.	<i>Solanum nigrum</i> L. var. <i>vilosum</i> L.	Kachmachu	Solanaceae	Fod, MP, V
245.	<i>Solanum surattense</i> Burm. f.	Marraghunay	Solanaceae	MP
246.	<i>Solanum tuberosum</i> L.	Aloo	Solanaceae	CC
247.	<i>Solena amplexicaulis</i> (Lam.) Gandhi	Desi Kakora	Cucurbitaceae	Fod, MP
248.	<i>Solidago virga-aurea</i> L.	Bangira	Asteraceae	MP
249.	<i>Sonchus arvensis</i> L.	Shouda Pai	Asteraceae	Fod, MP
250.	<i>Sonchus asper</i> (L.) Hill	Shouda Pai	Asteraceae	Fod, MP
251.	<i>Sorbaria tomentosa</i> (Lindl.) Rehr	Jijrai	Rosaceae	IR, MP
252.	<i>Sorghum halepense</i> (L.) Pers.	Dadam	Poaceae	Fod
253.	<i>Stellaria media</i> (L.) Vill.	Sargarrai, Tighstargai	Caryophyllaceae	Fod, MP, VM, V
254.	<i>Tagetes erecta</i> L.	Zangali Hamesha, Genda	Asteraceae	MP
255.	<i>Taraxicum officinale</i> Wigg.	Booda Boodai Ziar Gulay	Asteraceae	MP, V
256.	<i>Taxus wallichiana</i> (Zucc.) Pilger	Banrya	Taxaceae	MP, Fr, FW, T
257.	<i>Thalictrum foliolosum</i> DC.	Kamasla Mamera	Ranunculaceae	MP
258.	<i>Thymus linearis</i> Bth. ssp. <i>linearis</i> Jalas	Masho, Sperkai, Kaneesh	Lamiaceae	Milk, MP, VM
259.	<i>Thymus vulgaris</i> L.	Thor Masho	Lamiaceae	MP
260.	<i>Trachyspermum ammi</i> (L.) Sprague	Sperkai	Apiaceae	MP, VM
261.	<i>Tribulus terrestris</i> L.	Markundai, Tabba Butay	Zygophyllaceae	MP
262.	<i>Trifolium repens</i> L.	Shaftal	Papilionaceae	Fod, MP, V
263.	<i>Urtica dioica</i> L.	Sezunkay, Jalbang	Urticaceae	Fod, VM, V

S.No.	Botanical Name	Local Name	Family Name	Indigenous Uses
264.	<i>Valeriana jatamansi</i> Jones	Shingatai, Mushk-e-Bala	Valerianaceae	MP
265.	<i>Verbascum thapsus</i> L.	Khar Ghwag, Gihdar Tambaku	Scrophulariaceae	FP, MP
266.	<i>Verbena officinalis</i> L.	Shamakai	Verbenaceae	MP,SB, SS
267.	<i>Veronica biloba</i> L.	Ghutialay	Scrophulariaceae	MP
268.	<i>Viburnum cotinifolium</i> D. Don	Zangali Chamyarai	Caprifoliaceae	Br, Fr, FW, MP,
269.	<i>Viburnum grandiflorum</i> Wall. ex DC.	Samagul, Chamyarai, Qawsar Butay	Caprifoliaceae	Fr, FW, MP, VM
270.	<i>Vicia sativa</i> L.	Jamdar, Chilow	Papilionaceae	MP, Fod
271.	<i>Viola betonicifolia</i> Sm.	Banafsha	Violaceae	MP
272.	<i>Viola biflora</i> L.	Banafsha	Violaceae	MP
273.	<i>Viola canescens</i> Wall. ex Roxb.	Banafsha	Violaceae	MP, Nam
274.	<i>Viola pilosa</i> Blume	Banafsha	Violaceae	MP
275.	<i>Vitex negundo</i> L.	Marwandai	Verbenaceae	EP, MP, Myth
276.	<i>Withania somnifera</i> (L.) Dunal	Kutilal	Solanaceae	MP, VM
277.	<i>Woodfordia fruticosa</i> (L.) S.Kurz.	Dhawai	Lythraceae	AA, Dye, Fod, FH, MP, FW
278.	<i>Xanthium strumarium</i> L.	Geshkay	Asteraceae	MP, VM
279.	<i>Zanthoxylum armatum</i> DC.	Dambara, Timbar	Rutaceae	FH, Fr, FP, Fod, MP, TB, VM, WS
280.	<i>Zizyphus jujuba</i> Mill.	Markhanai, Unnab	Rhamnaceae	AA, Fod, FW, Fr, FH, HBA, MP
281.	<i>Zizyphus oxyphylla</i> Edgew.	Markhanai, Elanai	Rhamnaceae	AA, Fr, Fod, FW, FH, MP

Table 2: Percent usage of economically important plants of chail valley

S.No.	Plant Use Description	Key	Plant Species	%Age
1.	Agricultural Appliances	AA	28	9.96
2.	Anti-Dandruff	AD	2	0.71

S.No.	Plant Use Description	Key	Plant Species	%Age
3.	Anti-Lice	AL	3	1.07
4.	Basketry	Bask	8	2.85
5.	Bridges	B	3	1.07
6.	Brooms	Br	6	2.14
7.	Chips & Crisps	CC	1	0.36
8.	Chutney	Ch	3	1.07
9.	Condiments & Spices	Cond	8	2.85
10.	Confectionary	Conf	1	0.36
11.	Construction	Cons	1	0.36
12.	Cosmetics	Cos	4	1.42
13.	Crate Making	Cr	3	1.07
14.	Decoration	Dec	3	1.07
15.	Dye	Dye	9	3.20
16.	Egg Production	EP	5	1.78
17.	Fences & Hedges	FH	23	8.19
18.	Fish Poison	FP	9	3.20
19.	Flavoring Agents	FI	10	3.56
20.	Fodder	Fod	101	35.94
21.	Fruit	Fr	29	10.32
22.	Fuel Wood	FW	51	18.15
23.	Furniture	F	20	7.12
24.	Gun Buts	GB	3	1.07
25.	Hair Tonic	HT	1	0.36
26.	Honey Bee Attractant	HBA	14	4.98
27.	House Building	HB	1	0.36
28.	Ink	Ink	1	0.36
29.	Insect Repellent	IR	3	1.07
30.	Ketch-Ups	KU	1	0.36
31.	Leach Killer	LK	1	0.36
32.	Match Industry	MI	3	1.07
33.	Medicinal Plants	MP	260	92.53
34.	Milk Production	Milk	4	1.42
35.	Mosquito Repellent	MR	1	0.36
36.	Mouth Wash	MW	4	1.42
37.	Mud Supporter	MS	5	1.78
38.	Mythological Uses	Myth	8	2.85
39.	Naming	Nam	17	6.05
40.	Oil Yielding	Oil	5	1.78
41.	Ornamental	O	17	6.05
42.	Packing Material	Pack	2	0.71
43.	Paper	Pap	1	0.36
44.	Playing Tops	PT	1	0.36
45.	Poisonous	Pois	15	5.34
46.	Ropes	Rop	1	0.36
47.	Salads	Sal	8	2.85
48.	Scorpion Sting	SS	5	1.78
49.	Shade Tree	Sh	1	0.36
50.	Snake Bite	SB	7	2.49
51.	Snuff Ash	SA	1	0.36
52.	Soil Reclamation	SR	1	0.36
53.	Sports Tools	ST	1	0.36
54.	Thatching & Roofing	TR	3	1.07

S.No.	Plant Use Description	Key	Plant Species	%Age
55.	Timber	T	19	6.76
56.	Tooth Brush (Maswak)	TB	4	1.42
57.	Vegetable (Pot herb)	V	47	16.73
58.	Veterinary Medicine	VM	54	19.22
59.	Walking Sticks	WS	4	1.42
60.	Washing Utensils	WU	3	1.07
61.	Winnowing Trays	WT	1	0.36

Key: AA= Agricultural Appliances, AD= Anti-Dandruff, AL= Anti-Lice, Bask= Basketry, B= Bridges, Br= Brooms, CC= Chips & Crisps, Ch= Chutney, Cond= Condiments & Spices, Conf= Confectionary, Cons= Construction, Cos= Cosmetics, Cr= Crate Making, Dec= Decoration, Dye= Dye, EP= Egg Production, FH= Fences & Hedges, FP= Fish Poison, FI= Flavoring Agents, Fod= Fodder, Fr= Fruit, Fw= Fuel Wood, F= Furniture, GB= Gun Buts, HT= Hair Tonic, HBA= Honey Bee Attractant, HB= House Building, Ink= Ink, IR= Insect Repellent, KU= Ketch-Ups, LK= Leach Killer, MI= Match Industry, MP= Medicinal Plants, Milk= Milk Production, MR= Mosquito Repellent, MW= Mouth Wash, MS= Mud Supporter, Myth= Mythological Uses, Nam= Naming, Oil= Oil Yielding, O= Ornamental, Pack= Packing Material, Pap= Paper, PT= Playing Tops, Pois= Poisonous, Rop= Ropes, Sal= Salads, SS= Scorpion Sting, Sh= Shade Tree, SB= Snake Bite, SA= Snuff Ash, SR= Soil Reclamation, ST= Sports Tools, TR= Thatching & Roofing, T= Timber, TB= Tooth Brush (Maswak), V= Vegetable (Pot herb), VM= Veterinary Medicine, WS= Walking Sticks, WU= Washing Utensils, WT= Winnowing Trays.