

Table 1. Taxa, local name, habitats, altitudinal range, life form, nativity, threat status, part used and indigenous uses of ethnomedicinal plants used in skin diseases in Pangi Valley

Family/Taxa	Local Name	Habitats	Altitudinal range (m)	Life Form	Nativity	Threat Status (as per RED LIST & RED DATA BOOK)	Uses	Parts used	Mode of Preparation	Representative no.
<i>Apiaceae Lindl.</i>										
<i>Bupleurum falcatum L.</i>	Banchog	VII	2,800–3,800	H	Europe to Caucasus	-	Cuts, boils.	Fresh leaves and seeds	Paste of leaves	<i>Poushali Dey 336135 (LWG)</i>
<i>Carum carvi L.</i>	Gurnu or Gyaju	I, II, IV, V	2,800–3,800	H	Temp. Eurasia	-	It is used to treat infections and itching (13) (23)	Seeds	Desi ghee is used to roast powdered seeds. To treat a skin illness, the preparation is applied to the skin daily for a week.	<i>Poushali Dey 335943 (LWG)</i>
<i>Ferula jaeschkeana</i> Vatke	Kurash	I, IV	2800-3500	H	N. Pakistan to Central Asia and Himalaya	-	The rhizomes, both fresh and dried, are used to treat burns, boils, cuts, and chronic wounds. To treat some illnesses, rhizome paste is applied directly to the skin. (14) (19)	Rhizome, root, resin	Paste of rhizomes	<i>Poushali Dey 335905 (LWG)</i>
<i>Heracleum candicans</i> Wall. ex DC.	Pudadei, Dundu	V	2000-5000	H	N. Pakistan to China (W. Sichuan, N. & Central Yunnan)	-	Leukoderma and wounds are cleaned and healed using fresh rhizome paste. (17) (22)	Fresh and dried rhizomes, roots, Whole plant	Grounded root paste is used in snake bite	<i>Poushali Dey 345772 (LWG)</i>
<i>Araceae Juss.</i>										
<i>Arisaema flavum</i> (Forssk.) Schott	Kida alu, Bang	II, VIII	2000-2500	H	NE. Tropical Africa to S. Central China	-	Insecticide, cuts and wounds (2) (17)	Bulb/tubers	Bulbs are crushed and applied on cuts and wounds	<i>Poushali Dey 336057 (LWG)</i>
<i>Asteraceae Bercht. & J. Presl</i>										
<i>Arctium lappa L.</i>	Naklikuth	I, III	2500-3500	H	Temp. Eurasia	-	Burns (17)	Roots	-	<i>Poushali Dey 345770 (LWG)</i>

<i>Artemisia parviflora Roxb. ex D.Don</i>	Shambarbooti	V, VI	2000-2800	H	Pakistan to China and Myanmar	-	It is used for cuts and wounds (18)	Aerial parts	Paste of leaves	<i>Poushali Dey 319078 (LWG)</i>
<i>Inula racemosa Hook.f.</i>	Manuruta, Manu, Manukuth	I, II, IV	2000-2700	H	Afghanistan to Central China	-	It is used to cure boils, skin eruption, blisters (13) (18)	Roots	Paste of roots. For seven days, a paste made from root powder and ghee is applied twice daily. Until the water turns brownish-red, chopped dried roots are cooked in water at a low temperature. To treat boils, take one scoop of the decoction every day.	<i>Poushali Dey 345779 (LWG)</i>
<i>Dolomiaeae macrocephala DC. ex Royle</i>	Guggal	VIII	3000-4000	H	W. & Central Himalaya	-	On cuts and skin eruptions, root powder is used.	Roots	Root Powder	<i>Poushali Dey 335942 (LWG)</i>
<i>Lactuca dissecta</i> D.Don	Dudhil	V	2000-2400	H	Arabian Peninsula, Afghanistan to Indian Subcontinent	-	It is used to cure cuts and burns (10)	Roots	Powdered form is taken orally	<i>Poushali Dey 335969 (LWG)</i>
<i>Taraxacum sect. Taraxacum</i> F.H.Wigg.	Kanphul	II, III, V	2000-4000	H	Alabama, to West Himalaya	LC	It is used to cure boils, blisters and wounds (13) (17) (23)	Flowers	Boils are treated with a two-day course of equal parts flower decoction and water.	<i>Poushali Dey 319059 (LWG)</i>
<i>Balsaminaceae A. Rich.</i>										
<i>Impatiens sulcata</i> Wall.	Halva	I, III, IV, V	2000-4000	H	NE. Pakistan to Himalaya and S. Tibet	-	Urticaria, eczema, pimples (17)	seed and leaves	Paste	<i>Poushali Dey 336162 (LWG)</i>
<i>Berberidaceae Juss.</i>										
<i>Berberis aristata</i> DC.	Kiamal	I, II, III, IV, V, VI	2100-3000	Sh	Himalaya to S. Tibet and Central India	LC	It is used to cure boils (17) (19)	Root and barks	-	<i>Poushali Dey 336086 (LWG)</i>
<i>Berberis asiatica</i> Roxb. ex DC.	Kahamil	IV, VIII	2000-2500	Sh	W. & Central Himalaya to NW. India and Myanmar	-	It is applied on pimples	Ripened fruits and aerial part	Fruit paste	<i>Poushali Dey 345792 (LWG)</i>
<i>Berberis lycium</i> Royle	Kasmal	I, II, III, IV, V, VI	2100-2500	Sh	E. Afghanistan to Central Himalaya and NW. India	LC	Wounds (7) (11)	Roots , Leaves, Stems and Decoctions	Baberine, Berbericine hydroiodide, Berberine-chlorofrom, Chenabine, Gilgitine, Kara-koramine, Palmitine chloroform along with oxyberberine, Punjabine, Secobisbenzylisoquinolines compounds are isolated	<i>Poushali Dey 336087 (LWG)</i>
<i>Podophyllum hexandrum</i> Royle	Ban kakri	I	2000-4000	H	NE. Afghanistan to Central China	-	It is used as a paste on cuts and wounds to promote tissue regeneration. (17)	Roots and fruits	Used in powdered form	<i>Poushali Dey 345793 (LWG)</i>

<i>Betulaceae</i> Gray										
<i>Betula utilis</i> D.Don	Bhojpatra	I,II,III,IV	2800-4500	T	Afghanistan to N. & Central China	LC	It is used to treat burns, cuts & wounds healing, antiseptic, hemostasis (14) (17)	Bark, Twig, leaf	-	<i>Poushali Dey 345778 (LWG)</i>
<i>Boraginaceae</i> Juss.										
<i>Arnebia benthamii</i> (Wall. ex G.Don) I.M.Johnst	Ratanjot	II, VIII	3300-4000	H	NE. Pakistan to W. & Central Himalaya	-	On burns and cuts, powder is applied as a paste. Boils and wounds. (17) (19)	Roots	Paste	<i>Poushali Dey 345791 (LWG)</i>
<i>Brassicaceae</i> Burnett.										
<i>Lepidium apetalum</i> Willd.		I,II	2100-2600	H	E. Europe to Temp. Asia	-	Skin pigmentation, wound healing or wound closure in vivo (3) (17)	Whole plant	-	<i>Poushali Dey 319065 (LWG)</i>
<i>Cannabaceae</i> Martinov										
<i>Cannabis sativa</i> L.	Bhang	I, II, III, IV, V	2000-3200	H	SE. European Russia to Xinjiang and Pakistan	-	Leukoderma, pimples, boils, cuts & wounds (9) (17)	Roots and Leaves	Crush and apply paste	<i>Poushali Dey 335921 (LWG)</i>
<i>Caprifoliaceae</i> Juss.										
<i>Morina coulteriana</i> Royle	Tinglaa	II	3000-3600	H	Afghanistan to Central Asia and W. Himalaya	-	Abscesses	Root	-	<i>Poushali Dey 345726 (LWG)</i>
<i>Morina longifolia</i> Wall. ex DC.	Tinglaa	I, II	3200-3800	H	N. Pakistan to Himalaya and S. Tibet	-	Boils, wounds, burns (17)	Root	-	<i>Poushali Dey 336153 (LWG)</i>
<i>Caryophyllaceae</i> Juss.										
<i>Stellaria media</i> (L.) Vill.	Kokuwa	I, VII	2400-4500	H	Temp. Eurasia, N. & NE. Tropical Africa	LC	Burns, boils and wounds (18)	Leaves	On burn wounds, the plant's leaf paste is also administered.	<i>Poushali Dey 335955 (LWG)</i>
<i>Convolvulaceae</i> Juss.										
<i>Cuscuta reflexa</i> Roxb.	Amarbel	I, III	2000-2400	Climber	Afghanistan to Indo-China, Java	LC	Burns, itching, wounds (17)	Seed, stem, Whole plant	The stem's methanol extract has antibacterial action, and the plant's	<i>Poushali Dey 336026 (LWG)</i>

								whole extract is regarded as antiviral and analgesic.	
Cupressaceae Gray									
<i>Juniperus communis</i> L.	Bathathri, Bethda, Bithal	I, II, VI	2800-3500	Sh	Subarctic & Temp. Northern Hemisphere	LC	It is used to treat boils, skin itching and infections, skin ailments. (13) (23) (17)	Leaf	Regular massage with heartwood oil is thought to be useful in treating infections, boils, and skin itching.
Ericaceae Durande									<i>Poushali Dey 345787 (LWG)</i>
<i>Rhododendron campanulatum</i> D.Don	Shargal, kashmiripatta	I, II, III, IV	2800-3800	Sh	Himalaya to S. Tibet	-	It is used to treat boils (19)	Root, leaf, flower, twig	-
Fabaceae Lindle.									<i>Poushali Dey 345786 (LWG)</i>
<i>Desmodium venustum</i> Steud.	Kathi	II, IV, V, VII, VIII	2000-3000	Sh	Mexico	-	Snakebite	Leaves	-
<i>Medicago falcata</i> L.	Kathoama	III, VIII	2800-4500	H	Europe to Mongolia and Indian Subcontinent	-	Wound healing (23)	Aerial part	For the goal of mending wounds and injuries, aerial parts paste is administered.
Geraniaceae Juss.									
<i>Geranium nepalense</i> Sweet	Lalijar	I, II, III, IV	2100-3500	H	E. Afghanistan to Korea and Indo-China, N. Sumatera	-	Cuts and wounds. Eczema and itching (1) (17)	Whole Plant	Mix powder with turmeric powder and mustard oil & apply
<i>Geranium wallichianum</i> D.Don ex Sweet		I, II, III, IV	2100-3500	H	E. Afghanistan to Himalaya and Tibet	LC	Cuts, boils	-	<i>Poushali Dey 336119 (LWG)</i>
Lamiaceae Martnov									
<i>Ajuga integrifolia</i> Buch-Ham. ex D.Don	Neel kanthi	I, VII	2000-2500	H	NE. & E. Tropical Africa, Arabian Pen, Afghanistan to W. New Guinea	-	Cuts, burns and b boils	Root, Whole plant	-
<i>Hyssopus officinalis</i> L.	Tiyanku	IV	2000-3500	Sh	Europe, Medit. to Iran	-	It is applied on boils, skin eruptions (13) (23)	Flowers and leaves	Flower and leaf paste
<i>Lamium album</i> L.	Banbuti	I, III, V	2000-2400	H	E. Europe to Temp. Asia	-	Roots is applied on the burns and cuts	Root	Paste of root
<i>Mentha longifolia</i> (L.) L.	Manshoii	I, II, III, IV, V	2100-4000	H	Macaronesia, Temp. Eurasia to S. Africa	LC	Applied to burst the boils for pus removal and to kill maggots on a	Leaves	Leaves paste
									<i>Poushali Dey 319093 (LWG)</i>

						wound. (17) (18)			
<i>Origanum vulgare</i> L.	Marua, Janglajwain	II, III, IV, V	2100-3500	H	Afghanistan, Albania, Algeria, Altay, Austria, Azores, Baleares, Baltic States	-	It is applied to boils, cut, fire burns, weeping eczema (18)	Leaves and stems	2-3 black pepper fruits and a paste of leaves and terminal shoots (<i>Piper</i> <i>nigrum</i>)
<i>Thymus linearis</i> Benth.	Sunauni, Ban ajwain	II, III, IV, V	2500-4000	H	N. Iran to Xinjiang and Himalaya	-	antiseptic agent	Whole plant	-
<i>Liliaceae Juss.</i>									
<i>Fritillaria cirrhosa</i> D.Don		I, III, VI	3000-4600	H	Pakistan to Central China	-	burns	Bulb / root	-
<i>Orchidaceae Juss.</i>									
<i>Dactylorhiza</i> <i>hatagirea</i> (D.Don) Soó	Hathpanja	I, II, IV, V, VI	2800-4000	H	Mongolia to Himalaya	-	It is used for cuts, healing of wounds and burns (16) (22)	Roots	Tuber paste. For 2-3 days, a fresh rhizome paste is applied twice daily to wounds in order to promote healing.
<i>Malaxis muscifera</i> (Lindl.) Kuntze	Rishabhak/ Jeevak	II, IV, V	2500-3600	H	Pakistan to S. Central China	VU	Paste is used in burns (16)	Pseudobulb	-
<i>Pinaceae Spreng.</i> ex F.Rudolphii									
<i>Cedrus deodara</i> (Roxb. ex D.Don) G.Don	Devdar	I, II, III, IV	2000-2800	T	NE. Afghanistan to W. Nepal and NW. India (Morni Hills)	LC	It is used to cure boils, infections and itching (13) (19)	Leaves, wood	Oil extracted
<i>Pinus wallichiana</i> A.B.Jacks.	Chii or Kail	I, II, IV, V, VI, VII, VIII	2000-3600	T	NE. Aghanistan to China (NW. Yunnan)	LC	It is used to cure boils (1)	Stem bark	Apply resin externally
<i>Plantaginaceae</i> Juss.									
<i>Plantago major</i> L.	Carrata, Therma	V	2000-2800	H	Temp. Eurasia to Arabian Peninsula, Macaronesia, N. & S. Africa	LC	It is used for cuts, wounds, burns, boils & oozing pus (1) (8) (13)	Whole plant, leaves, root, seed	Crush and/or grind & apply paste. To remove boils, mustard oil-coated, slightly warmed leaves are left on the boils overnight. It is supposed to reduce both pain and edema.
<i>Polygonaceae Juss.</i>									
<i>Koenigia alpina</i> (All.) T.M.Schust. & Reveal	Chuodh	I, II, III, IV, V, VII, VIII	2100-3500	H	Temp. Eurasia	-	Haemostasis, wounds	Stem, leaves	To treat lip and gum cracks, raw tender stems are consumed.
<i>Fallopia</i> <i>pterocarpa</i> (Wall. ex Meisn.) Holub	Todhi	V	2000-2400	Climber	Himalaya	-	Cuts and wounds are treated with a paste produced from fresh leaves.	Leaves	-

<i>Rumex nepalensis</i> Spreng.	Ubbal	V, VI	2000-3500	H	Cameroon to Eritrea and S. Africa, Arabia Peninsula, Madagascar, SE. Europe to China, Jawa	-	Boils, It is used to heal wounds (17)	Leaves	As an ant allergy treatment, leaves are crushed and put to wounds.	<i>Poushali Dey 335907 (LWG)</i>
<i>Ranunculaceae</i> Juss.										
<i>Caltha palustris</i> L.	Shomalap	I, III	2000-2800	H	Temp. & Subarctic Northern Hemisphere	LC	When boils, cuts and eruption of pimples appear, leaves are applied to the affected area.	Leaves	once a day for 10 to 15 days used for massage.	<i>Poushali Dey 336034 (LWG)</i>
<i>Clematis grata</i> Wall.	Bharani	V	2000-2400	H	E. Afghanistan to Himalaya, Nansei-shoto to Taiwan	-	Eruption of pimples and boils can be treated with leaves. (18)	Leaves	Leaves paste	<i>Poushali Dey 345764 (LWG)</i>
<i>Delphinium cashmerianum</i> Royle		I, III, IV	2700-4800	H	NE. Pakistan to Himalaya and Tibet	-	It is used to treat cuts and wounds (19)	Whole plant	-	<i>Poushali Dey 345795 (LWG)</i>
<i>Delphinium vestitum</i> Wall. ex Royle		V	2700-4700	H	N. Pakistan to S. Tibet and Nepal	-	It is used to treat cuts, wounds and burns (17)		-	<i>Poushali Dey 345782 (LWG)</i>
<i>Ranunculus laetus</i> Wall. ex Royle	Jaldaru, Mingo	V	2800-3800	H	Morocco, Europe to Turkey, Central Asia.	-	Paste is applied on cuts and burns. Fresh roots are grounded and the paste is applied on wounds overnight.	Leaves, roots	Paste of leaves	<i>Poushali Dey 336084 (LWG)</i>
<i>Rosaceae</i> Juss.										
<i>Potentilla atrosanguinea</i> G.Lodd.	Dori	II, VI, VIII	3000-3600	H	Himalaya to Tibet	-	Wounds and Injuries (17)		-	<i>Poushali Dey 336059 (LWG)</i>
<i>Fragaria nubicola</i> (Lindl. ex Hook.f.) Lacaita	Ancholu	I, II, IV, V	2100-4000	H	Afghanistan to Tibet and N. India	-	Snakebite	Tuber	-	<i>Poushali Dey 345776 (LWG)</i>
<i>Prunus armeniaca</i> L.	Cheer	I, II, III	2100-2800	T	Central Asia to N. & Central China	DD	Massage oil (17)	Seed, Fruit	-	<i>Poushali Dey 336018 (LWG)</i>

<i>Rosa macrophylla</i> Lindl.	Gulab	I, II, IV, V	2100-3200	Sh	Afghanistan to S. Central China	-	Skin diseases can be treated using seeds. To soften the face, seed paste is used.	Seeds and fruits	Seed paste	Poushali Dey 345723 (LWG)
<i>Sapindaceae</i> Juss.										
<i>Aesculus indica</i> (Wall. ex Cambess.) Hook.	Khanor	I, VI	2000-2500	T	Afghanistan, Assam, East Himalaya, Nepal, Pakistan, West Himalaya	LC	skin fissures, wounds	Bark, Fruit, Root, Seed	-	Poushali Dey 345781 (LWG)
<i>Saxifragaceae</i> Juss.										
<i>Bergenia ciliata</i> (Haw.) Sternb.	Shapdochi, Sadpottar	I, IV, V	2100-2500	H	W. Himalaya to SW. Nepal	LC	Cuts, wounds and boils, Skin disease (21)	Stem, leaves	-	Poushali Dey 336068 (LWG)
<i>Scrophulariaceae</i> Juss.										
<i>Verbascum thapsus</i> L.	Jangli Tamaku	III, V	2000-3200	H	Azores, Europe to Siberia and Himalaya	LC	Sunburns and boils (13) (17) (18)	Flower and leaves	Applying a paste made of flowers and leaves in mustard oil.	Poushali Dey 335953 (LWG)
<i>Solanaceae</i> Juss.										
<i>Datura stramonium</i> L.	Datura	I, III, V	2000-2200	H	Texas to Central America, Caribbean	-	Softening of the boils (18)	Seeds	seeds are ground to powdered form	Poushali Dey 336053 (LWG)
<i>Solanum nigrum</i> L.	Makoi	IV, VIII	2000-2800	H	Temp. Eurasia, Macaronesia, N. & NE. Tropical Africa	-	It is used to treat boils, sores, ulcer in mouths (17)	Fruit, seed, leaf	-	Poushali Dey 335910 (LWG)
<i>Urticaceae</i> Juss.										
<i>Urtica dioica</i> L.	Aahan, Ain	I, II, III, IV, V	2000-2800	H	Afghanistan to West Himalaya	LC	It is used to treat cuts, boils & wound healing, injuries (17) (21)		-	Poushali Dey 345796 (LWG)
<i>Violaceae</i> Batsch										
<i>Viola biflora</i> L.	Banafsha	I, III, VII	2700-3500	H	Temp. & Subalpine Northern Hemisphere to N. Sumatera	-	Antiseptic, psoriasis, Leukoderma, skin disease (17)	Leaf, flower, root, seed	-	Poushali Dey 345797 (LWG)

Abbreviations used: T=tree; Sh=shrub; H=Herb; I=Shady moist; II=Dry; III=Degraded; IV=Rocky; V=Bouldary; VI= Riverine; VII=Moist alpine slope and VIII=Dry alpine slope; DD= DATA DEFICIENT; LC= LEAST CONCERN; U= VULNERABLE

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