

Traditional healing practices for treatment of animal bites among tribes of India: A systematic review

Stuti Singh^a & Nishant Saxena^{b,*}

^aAmity Institute of Anthropology, Amity University Uttar Pradesh, Noida Sector-125, 201 307, India

^bICMR-National Institute of Research Tribal Health, Jabalpur 482 003, Madhya Pradesh, India.

*E-mail: nishant.7483@gmail.com

Received 03 September 2021; revised 03 October 2022; accepted 07 August 2023

Supplementary Tables

Supplementary Table 1 — Ethnomedicinal account of tribes of North zone for animal bites

North Zone								
S. No.	Vernacular name	Botanical Name	Family Name	Part used	Administration	Type of bite	State	Tribe
1	Nasa Bhaga	<i>Peristrophe paniculata</i>	Acanthaceae	Wp	Wp mascaraed in rice infusion, taken orally.	Sn	Uttar Pradesh	Baiga, Bhil, Gond, Kharwar ¹⁷
2	Chirongi	<i>Buchanania lanzan</i>	Anacardiaceae	St B	St B pounded, applied topically.			
3	Koraya	<i>Holarrhena antidysenterica</i>	Apocynaceae	R	10-20 g root paste taken orally withwater.	Dg & Vn		
4	Uchunti	<i>Ageratum conyzoides</i>	Asteraceae	Wp	Wp pounded, applied topically.	Sn & Sc		
5	Masbhari	<i>Tridax procumbens</i>	Asteraceae	Wp	Wp paste applied topically.	Sc & Ws		
6	Salai	<i>Boswellia serrate</i>	Bursaceae	B	10 g mixture of pounded B with Rof <i>Leea crispa</i> in equal proportions, orally intake within an hour.	Sn		
7	Chakawad, Chakunda	<i>Cassia tora</i>	Fabaceae	R	R paste applied.			
8	Amaltas, Dhanba	<i>Cassia fistula</i>	Fabaceae	Rb	50 mL decoction taken orally.			
9	Besharama, Panchpatri	<i>Ipomoea pes-tigridis</i>	Convolvulaceae	R	Paste is applied.	Sn & Dg		
10	Parh	<i>Rivea hypocrateriformis</i>	Convolvulaceae	Wp	Juice/paste taken orally.	Sn		
11	Palas, Dhak	<i>Butea monosperma</i>	Fabaceae	S	S paste in 10 mL lemon juice given orally.			
12	Sarphankha	<i>Tephrosia purpurea</i>	Fabaceae	Wp	Wp decoction used 20-50 mL per day.			
13	Dabara	<i>Uraria picta</i>	Fabaceae	R	R decoction used orally in 20 mL doses 2-3 times per day.			
14	Gumma, Bhodaki	<i>Leucas aspera</i>	Lamiaceae	Wp	50-70 g Wppastegiven orally.			
15	Phooldhawai	<i>Woodfordia fruticosa</i>	Lythraceae	R	R pounded with R of <i>Calotropis gigantea</i> (safedmadar),applied topically.	Dg		
16	Mungna, Sainjna, Sahjan	<i>Moringa oleifera</i>	Moringaceae	R & S	R and S prescribed for treatment.	Sn & Sc		

(Contd.)

Supplementary Table 1 — Ethnomedicinal account of tribes of North zone for animal bites (Contd.)

North Zone								
S. No.	Vernacular name	Botanical Name	Family Name	Part used	Administration	Type of bite	State	Tribe
17	Chotwa bhaji, Patharchatta	<i>Boerhavia diffusa</i>	Nyctaginaceae	L	L used as an antidote.	Sn		
18	Phetra	<i>Gardenia turgida</i>	Rubiaceae	R	Decoction of R and Rof <i>Ficus racemosa</i> prepared as antidote.			
19	Aam	<i>Mangifera indica</i>	Anacardiaceae	In	In used as an antidote.	Sn & Sc		Tharu ¹⁸
20	Bhilawa	<i>Semecarpus anacardium</i>	Anacardiaceae	Fr	Fr in Vn.	Vn		
21	Balamkhira	<i>Kigelia africana</i>	Bignoniaceae	L & B	L & B in Sn.	Sn		
22	Pula	<i>Flueggea virosa</i>	Phyllanthaceae	R	R used as antidote.			
23	Kalikath	<i>Glochidion heyneanum</i>	Phyllanthaceae	R	R used as antidote.			
24	Pahari shisham	<i>Triadica sebifera</i>	Euphorbiaceae	B	B used as antidote.			
25	Jait	<i>Sesbania sesban</i>	Fabaceae	R & L	R & L used as antidote.	Sc		
26	Ghiwala	<i>Callicarpa arborea</i>	Verbenaceae	B	B used as antidote.	Sc		
27	Gamari	<i>Gmelina arborea</i>	Lamiaceae	R & B	R & B used as antidote.	Sn		
28	Kumbhi	<i>Careya arborea</i>	Lecythidaceae	B	B used in treatment.			
29	Shahtutt	<i>Morus alba</i>	Moraceae	B	B given in In.	In		
30	Khaja	<i>Bridelia retusa</i>	Phyllanthaceae	B	B given in Sn.	Sn		
31	Gudgudi	<i>Cerisoides turgida</i>	Rubiaceae	R	R used in Dg.	Dg		
32	Bara Nibu	<i>Citrus medica</i>	Rutaceae	S	S paste is applied.	Sc		
33	Katia	<i>Flacourtia indica</i>	Salicaceae	R	R used as antidote.	Sn		
34	Banj	<i>Quercus leucotrichophor</i>	Fagaceae	Fr	Fr paste applied.		Uttaranchal	Raji ¹⁹
35	Dhak	<i>Butea monosperma</i>	Fabaceae	S & Cu	S and C used as antidote.		Uttar Pradesh	Tharu ²⁰
36	Amaltas	<i>Cassia fistula</i>	Fabaceae	S & Fr	S and Fr pulp used as antidote.			
37	Raimunia	<i>Lantana camara</i>	Verbenaceae	Wp	Wp used as antidote.			
38	Baeiyara	<i>Sida acuta</i>	Malvaceae	L	L used as antidote.			
39	Rhadani	<i>Diplocyclos palmatus</i>	Cucurbitaceae	L	Powder of L (5-8 g) sprayed over wound.		Jammu & Kashmir	Gujjar & Bakerwal ²¹
40	Sapghemak	<i>Gaultheria trichophylla</i>	Ericaceae	L	Fresh L eaten immediately after bite.			
41	Buj/Talwaro	<i>Iris kemaonensis</i>	Iridaceae	Rh	50-100 g Rh extract administered immediately after Sn.			
42	Giddartamaku	<i>Verbascum thapsus</i>	Scrophulariaceae	L	L extract taken 2-3 times in a day for 2 days.			
43	Mishtu	<i>Rubia cordifolia</i>	Rubiaceae	L & St	Paste of <i>Rubia cordifolia</i> and <i>Cynodondactylon</i> (Doob Grass) is applied on bitten area.		Himachal Pradesh	Pangwal ²²
44	Ubbal	<i>Rumex nepdensis</i>	Polygonaceae	L	L paste made with milk, churned curd, or cow urine, applied.			
45	Garna	<i>Carissa opaca</i>	Apocynaceae	R	R grounded in water, filtered and given to drink. If, victim doesn't vomit shows that poison is still in the body. R abstract massaged from lower part of head to waist. R decoction given to drink.			Kirata and Gujjar ²³

(Contd.)

Supplementary Table 1 — Ethnomedicinal account of tribes of North zone for animal bites (Contd.)

North Zone								
S. No.	Vernacular name	Botanical Name	Family Name	Part used	Administration	Type of bite	State	Tribe
46	Hwang	<i>Achyranthes bidentata</i>	Amaranthaceae	R	-		Uttarakhand	Jaunsari ²⁴
47	Baanj	<i>Quercus leucotrichophora</i>	Fagaceae	B	-	Sc		
48	Kachoori	<i>Siegesbeckia orientalis</i>	Asteraceae	R	-	Sn		
49	Sapau	<i>Thalictrum foliolosum</i>	Ranunculaceae	R	-			
50	Apamarga	<i>Achyranthes bidentata</i>	Amaranthaceae	L	Tablets (5 mg) made from L with jaggery given for 3 days.	Dg		Raji / Vanraji ²⁵
51	Bang	<i>Arisaema flavum</i>	Araceae	Rh	Rh paste with water applied on body part.	Sn & Sc		
52	Nagkesar	<i>Mesua ferrea</i>	Calophyllaceae	R	R paste given orally.	Sn		

Supplementary Table 2 — Ethnomedicinal account of tribes of Central zone for animal bites

Central Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of bite	State	Tribe
1	Dudhia grass	<i>Euphorbia hirta</i>	Euphorbiaceae	Wp	Juice taken orally.	Sn	Chhattisgarh	Korvas, Birhor ²⁶
2	Apamarg	<i>Achyranthes aspera</i>	Amaranthaceae	R	Fresh R extract taken orally with water once a day.	Sn & Sc		Cherwa and Pando ²⁷
3	Annatmul	<i>Hemidesmus indicus</i>	Apocynaceae	R	Aqueous R extract prepared in water, given orally 2-3 times a day.	Sn		
4	Khadhar	<i>Gardenia turgida</i>	Rubiaceae	R	5 g R crushed, mixed with 200 mL water. R paste with water given orally twice a day.			
5	Mithi Variyari, Mithi Patti	<i>Scoparia dulcis</i>	Plantaginaceae	Wp	50 g of Wp with 50 g of Wp of <i>Phyllanthusamarus</i> and 50 g <i>Sida acuta</i> (Wp) made into paste, mixed with 250 mL water, given orally twice a day for 1-2 days.			
6	Lajwanti	<i>Mimosa pudica</i>	Fabaceae	Wp	50 g of Wp made extract in 250 mL water shaken and filtered. Wp extract of given twice a day in one day.			
7	Kewanch	<i>Mucuna pruriens</i>	Fabaceae	R	5 g of R crushed, mixed with 200 mL water. Aqueous R extract given orally twice a day.			
8	Rohina	<i>Soymida febrifuga</i>	Meliaceae	B	50 g fresh B with 50 g R of <i>Holarrhenapubescens</i> made into paste, mixed with 200 mL water, given orally three times a day for 3 days.			
9	Haldu, Karmi	<i>Haldina cordifolia</i>	Rubiaceae	B	50 g fresh B with 50 g R of <i>Butea monosperma</i> made into paste, mixed with 250 mL water, given twice a day for 2 days.			
10	Sarphonk	<i>Tephrosia purpurea</i>	Fabaceae	R	R extracts prepared in 250 mL water. Aqueous R extract given orally for thrice a day for 1 day.			

(Contd.)

Supplementary Table 2 — Ethnomedicinal account of tribes of Central zone for animal bites (Contd.)

Central Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of bite	State	Tribe
11	Bada Charota	<i>Cassia obtusifolia</i>	Fabaceae	S	Dried S paste (5 g) with 200 mL water given orally twice a day for 1 day.			
12	Ber	<i>Ziziphus mauritiana</i>	Rhamnaceae	R	Fresh root (5 g) eaten.	Sc		
13	Saliha	<i>Boswellia serrata</i>	Burseraceae	St B	Fresh paste applied externally.			
14	Bhatkataiya	<i>Solanum xanthocarpum</i>	Solanaceae	R	Paste with 200 mL water made into aqueous extract, given one time a day.			
15	Arand, Rendi	<i>Ricinus communis</i>	Euphorbiaceae	R	Paste of 100 g fresh R with 250 mL water is given orally, 1 time for 1 day.			
16	Kasondi	<i>Cassia occidentalis</i>	Fabaceae	R	R powder used for treatment Sn.	Sn	Madhya Pradesh	Gond, Pradhan, Bharia & Korku ²⁸
17	Janglipiyaz	<i>Drimia indica</i>	Asparagaceae	Bl	Bl paste used for Sc.	Sc		Bhil ²⁹⁻³¹
18	Limbvel	<i>Tinospora cordifolia</i>	Menispermaceae	St	Juice used as antidote.	Sn		
19	Choti gudvel	<i>Cayratia auriculata</i>	Vitaceae	R	R extract used in Dg.	Dg		
20	Phosphina	<i>Merremia emarginata</i>	Convolvulaceae	Wp	Wp used as antidote.	Sn		
21	Bhabdi	<i>Amorphophallus campanulatus</i>	Araceae	T	Crushed T, applied.			
22	Neem	<i>Azadirachta indica</i>	Meliaceae	St	St is brushed on teeth so that body becomes resistant.			
23	Doodamrikase	<i>Euphorbia hirta</i>	Euphorbiaceae	Lt	Lt rubbed externally on eyes and bitten area.	Sc		
24	Pipli	<i>Ficus religiosa</i>	Moraceae	L	L petiole inserted in both ears, sucks poison from body. About 20 pairs of leaves used alternatively.	Sn		
25	Ankra	<i>Habenaria commelinifolia</i>	Orchidaceae	T	T paste applied.			
26	Lathjira	<i>Achyranthes aspera</i>	Amaranthaceae	R	Paste applied externally immediately after sting.	Sc		Baiga ³²⁻³⁴
27	Jalneem	<i>Bacopa monnieri</i>	Plantaginaceae	L	L juice (2 drops) instilled into ears and simultaneously, leaf paste (10 g) externally applied immediately after bite.	Sn		
28	Gudmar	<i>Gymnema sylvestre</i>	Apocynaceae	R	R paste with 7 Fr of black pepper (<i>Piper nigrum</i> L.) taken in equal ratio to make paste, applied externally.			
29	Panchpatiya	<i>Ipomoea pes-tigridis</i>	Convolvulaceae	L	Paste is applied. Meanwhile, 2 spoonful is given orally with one cup water.	Sc		
30	Sarpagandha	<i>Rauvolfia serpentina</i>	Apocynaceae	R	Paste (10 mL) mixed with 1 cup water given orally twice a day for 2 days.	Rt		
31	Ghughch	<i>Abrus precatorius</i>	Fabaceae	L	Leaf juice (15 mL) given orally.	Sn		
32	Jaljamni	<i>Cocculus hirsutus</i>	Menispermaceae	R	Fresh R juice (15 mL) given orally.			
33	Jhulukia	<i>Plasmodium margaritifera</i>	-	T	Fresh T juice (15 mL) given orally.			

(Contd.)

Supplementary Table 2 — Ethnomedicinal account of tribes of Central zone for animal bites (Contd.)

Central Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of bite	State	Tribe
34	Chirchita, Latjira	<i>Achyranthes aspera</i>	Amaranthaceae	R	Paste applied topically.	Sc		
35	Latjira	<i>Achyranthes aspera</i>	Amaranthaceae	R	R paste applied externally.	Sn		Korku, Gond ³⁵
36	BichiyaKanta	<i>Acanthospermum hispidum</i>	Asteraceae	Wp	Plant used in treatment.	Sc		
37	Kanda	<i>Allium cepa</i>	Amaryllidaceae	Bl	Crushed Bl paste used with salt to relief.			
38	Lasun	<i>Allium sativum</i>	Amaryllidaceae		Oil is applied.			
39	Sitaphal	<i>Annona squamosa</i>	Annonaceae	B	Juice given as antidote.	Sn		
40	Palas	<i>Butea monosperma</i>	Fabaceae	S	Powder applied externally.	Sc		
41	Karu Pahad	<i>Cissampelos pariera</i>	Menispermaceae	R	R of plant used.	Sn		
42	Badarsiti	<i>Clematis triloba</i>	Ranunculaceae	L	Crushed L applied on wounds.			
43	Tendu	<i>Diospyros melanoxylon</i>	Ebenaceae	R & Fr	R paste applied topically, fruit taken orally.	Sc		
44	Baividang	<i>Embelia ribes</i>	Primulaceae	S	S used as antidote.	Sn		
45	Amla	<i>Emblica officinalis</i>	Phyllanthaceae	L	Juice given as cure.	Sc		
46	Gurmar	<i>Gymnema sylvestre</i>	Apocynaceae	R	R held in repute as remedy.	Sn		
47	Pandhara Kula	<i>Holarrhena pubescens</i>	Apocynaceae	S	S eaten in case of Sn.			
48	Gopha	<i>Leucas aspera</i>	Lamiaceae	L	Decoction given through nostrils.			
49	Mundi	<i>Mitragyna parviflora</i>	Rubiaceae	R	R grind with water, extract given orally.			
50	Motha nagdawna	<i>Oroxylum indicum</i>	Bignoniaceae	P	Pod is alexeritic.			
51	Sarpagandha	<i>Rauwolfia serpentina</i>	Apocynaceae	L	L used for treatment.			
52	Sitab	<i>Ruta graveolens</i>	Rutaceae	Wp	Herb planted near house to repel snake.			
53	Dorali	<i>Sansevieria virginianum</i>	Solanaceae	L	Powder is alexeritic to Sn.			
54	Atibala	<i>Sida rhombifolia</i>	Malvaceae	B	B paste used as antidote.			
55	Kushmi	<i>Solanum indicum</i>	Solanaceae	L	L paste applied on wound.			
56	Jamun	<i>Tamarindus indica</i>	Fabaceae	S	S paste applied externally.	Sc		
57	Ankol	<i>Alangium salviifolium</i>	Cornaceae	B	B (15 g) ground with 10-12 black pepper, mixed with 60 g animal fat, given every 2 h.	Sn		Saharia ³⁶
58	Pipal	<i>Ficus religiosa</i>	Moraceae	St B	25 g St B, 8-10 cloves are pounded with pure ghee, given 4-6-times a day. In case of lock-jaw, about 300 mg of copper sulphate powder is piped innose, followed by application of ghee in nostrils.			
59	Goma	<i>Heliotropium supinum</i>	Boraginaceae	R	Pounded aerial R portions applied topically, juice given orally (5 mL at frequent intervals).			
60	Panwar	<i>Senna tora</i>	Fabaceae	L	L rubbed at bitten part to prevent swelling and burning sensation.	Sc		
61	Koliknada	<i>Urginea indica</i>	Liliaceae	C	½ C ground with 8-10 black pepper, 50 g pure ghee & given three doses within a day.	Sn		

Supplementary Table 3 — Ethnomedicinal account of the tribes of West zone for animal bites

West Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of bite	State	Tribe
1	Bel	<i>Aegle marmelos</i>	Rutaceae	L	L juice applied on bitten part and squeezed L eaten to avoid nausea.	Sn	Maharashtra	Bhilla ³⁷
2	Garwl	<i>Cassytha filiformis</i>	Lauraceae	R	Infusion of aerial R and pendulous branches given orally.			
3	Dogadfodi	<i>Commicarpus chinensis</i>	Nyctaginaceae	R	Rare pounded in water, 1 glass given orally. Vomiting takes place which helps in reducing venomous effect.			
4	Amarvel	<i>Cuscuta reflexa</i>	Convolvulaceae	Wp	1 teaspoon of infusion of Wp given.			
5	Tendop, Tedip	<i>Cyphostemma auriculatum</i>	Vitaceae	B	B taken in 1 cup water once a day.			
6	Kharsing	<i>Radermachera xylocarpa</i>	Bignoniaceae	B	Teaspoonful infusion of B given once a day.			
7	Gulvel	<i>Tinospora cordifolia</i>	Menispermaceae	St	Dried St powder with lukewarm water given.			
8	Shida	<i>Bauhinia racemosa</i>	Fabaceae	Fr & L	Fr paste and L juice is applied.	Sc		
9	Mohari	<i>Brassica juncea</i>	Brassicaceae	L, St & Br	L, St and Br are applied.			
10	Karwand	<i>Carissa congesta</i>	Apocynaceae	R	R piece of <i>Carrisa congesta</i> kept on molar tooth, chewed and remnant applied topically.			
11	JangliBhendi	<i>Abelmoschus ficulneus</i>	Malvaceae	R	R crushed in 1 glass water and given to drink, while paste applied topically.			Korku ³⁸
12	Sitaphal	<i>Annona squamosa</i>	Annonaceae	L	Crushed fresh L mixed in hot food oil, steam given at bitten place, after cooling mixture applied.			
13	Bhosai	<i>Bauhinia racemosa</i>	Fabaceae	L	L chewed by two people and air blown in patient's ear, after which 1 water, given to drink.			
14	TanmanGhogari	<i>Cucumis melo</i>	Cucurbitaceae	Fr	Fresh or dry Fr eaten with some water.	Sn		
15	Lava	<i>Ficus racemosa</i>	Moraceae	L	½ cup fresh L juice given orally.	Sc		
16	Chekre	<i>Lagerstroemia parviflora</i>	Lythraceae	L	Fresh L juice taken till vomiting then L paste applied on bitten part.	Sn		
17	Tetu	<i>Radermachera xylocarpa</i>	Bignoniaceae	S	S pulp with little water taken.			
18	Kotukand	<i>Arisaema tortuosum</i>	Araceae	Bl	Infusion of 25 g fresh Bl taken orally thrice a day.		Rajasthan	Bhil, Garasia, Damor & Kathodia ³⁹
19	Kalipad	<i>Aristolochia bracteolata</i>	Aristolochiaceae	L	L infusion taken orally.			
20	Thor	<i>Aristolochia bracteolata</i>	Aristolochiaceae	Lt	Lt applied topically.	Sc		

(Contd).

Supplementary Table 3 — Ethnomedicinal account of the tribes of West zone for animal bites (Contd.)

West Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of bite	State	Tribe
21	Motha dini	<i>Leea macrophylla</i>	Vitaceae	S	S crushed in water, given orally till vomiting.	Sn	Maharashtra	Pawra ⁴⁰
22	Nimbdo	<i>Melia azedarach</i>	Meliaceae	R	1 cup R juice taken orally thrice a day for 3 ½ days.	Dg		
23	Alo	<i>Morinda pubescens</i>	Rubiaceae	G	Approximately 10gm of gum given orally.	Sc		
24	Bel	<i>Aegle marmelos</i>	Rutaceae	L	L juice applied on and squeezed L are eaten, which help to avoid nausea.	Sn		Thakar ⁴¹
25	Bugdi	<i>Ardisia solanacea</i>	Solanaceae	B	B used for snake bite.			
26	Hingu	<i>Balanites aegyptiaca</i>	Zygophyllaceae	B	B paste applied.			
27	Kate savar	<i>Bombax ceiba</i>	Malvaceae	L	L paste is applied.			
28	Rui	<i>Calotropis gigantea</i>	Apocynaceae	Lt	2-3 drops of Lt from crushed L put in the nose. It should be done till victim sneezes out and shows reduction in venomous effect.			
29	Amarvel	<i>Cassytha filiformis</i>	Lauraceae	R	Infusion of aerial R and pendulous branches given once or twice.			
30	Dogadfodi	<i>Commicarpus chinensis</i>	Nyctaginaceae	R	R pounded in water, one glass given for drinking. Vomiting takes place for reduction of venom in body.			
31	Pewa	<i>Costus speciosus</i>	Costaceae	Rh	Rh extract given in Sn.			
32	Amarvel	<i>Cuscuta reflexa</i>	Convolvulaceae	Wp	1 teaspoonful infusion of powdered Wp given thrice a day.			
33	Kali-vel	<i>Cyphostemma auriculatum</i>	Vitaceae	B	B (5 g) with 1 cup water taken once a day for 7-8 days.			
34	Pitani	<i>Gymnema sylvestre</i>	Apocynaceae	R	R powder taken orally, applied on bitten area.			
35	Ambuti	<i>Oxalis corniculata</i>	Oxalidaceae	Wp	Wp paste is tied on bite spot, juice is drunk to eliminate venom.			
36	Kharsing	<i>Radermachera xylocarpa</i>	Bigoniaceae	B	Teaspoonful infusion of inner B given once a day for 5-7 days.			
37	Sarpagandha	<i>Rauwolfia serpentina</i>	Apocynaceae	R	R powder used for Sn.			
38	Gulvel	<i>Tinospora cordifolia</i>	Menispermaceae	St	2 tablespoon powder of dried St with lukewarm water given once a day for 3-4 days.			
39	Gulaganji	<i>Abrus precatorius</i>	Fabaceae	R	R powder taken orally with cow's milk.	Sc		
40	Aghada	<i>Achyranthes aspera</i>	Amaranthaceae	R	R are crushed with 2 S of <i>Caesalpinia cristata</i> (gatayan) and applied externally.			
41	Apta	<i>Bauhinia racemosa</i>	Fabaceae	Fr & L	Fr paste applied. L juice also applied.			

(Contd.)

Supplementary Table 3 — Ethnomedicinal account of the tribes of West zone for animal bites (Contd.)

West Zone								
42	Mohari	<i>Brassica juncea</i>	Brassicaceae	L & St	Warm juice of L, stem and branches applied.			
43	Karvand	<i>Carissa congesta</i>	Apocynaceae	R	A piece of R kept on molar tooth, chewed and its remnant applied.			
44	Motha	<i>Cyperus rotundus</i>	Cyperaceae	T	T (dry) paste applied.			
45	Kar lavi	<i>Gloriosa superba</i>	Colchicaceae	R	R paste applied.			
46	Kadu-dodka	<i>Luffa acutangula</i>	Cucurbitaceae	L & B	L juice applied.			
47	Mahua	<i>Madhuca latifolia</i>	Sapotaceae	B	Dried fruits with L of <i>Ipomea stramonium</i> (<i>besharam</i>) made into paste and applied.			
48	Vichuchajhar	<i>Martynia annua</i>	Martyniaceae	S	S about 5 g, soaked in water and made paste, applied 2-3 times externally.			
49	Telhamarha, Dushamarha	<i>Calotropis procera</i>	Apocynaceae	R	L used with milk to cure.	Dg		Gond/Madia ⁴²

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
1	Kuppentaku	<i>Acalypha indica</i>	Euphorbiaceae	L	Fresh L paste mixed with 1 piece of garlic and 4-5 g of pepper powder poultice on stinging.	Sc	Andhra Pradesh	KattuNaickers, Paniyas and Kurumbas ⁴³
2	Oodaga	<i>Alangium salviifolium</i>	Cornaceae	St B	St B powder with cow urine used.	Sn		
3	Nelavemu	<i>Andrographis paniculata</i>	Acanthaceae	R	R decoction./	Sc		
4	Nelavemu	<i>Andrographis paniculata</i>	Acanthaceae	L	L juice with garlic is used.	Sn		
5	Nalla eswari	<i>Aristolochia indica</i>	Aristolochiaceae	R	R decoction used.			
6	Tati	<i>Borassus flabellifer</i>	Arecaceae	R	Fresh R juice mixed with <i>Tinosporacardifolia</i> and <i>Phyllanthus reticulatus</i> L in equal proportion for treatment.			
7	Tella jilledu	<i>Calotropis gigantean</i>	Apocynaceae	R	R decoction used for treatment.			
8	Tella jilledu	<i>Calotropis gigantean</i>	Apocynaceae	Lt	Lt applied externally.	Sc		
9	Veri puccha	<i>Citrullus colocynthis</i>	Cucurbitaceae	Fr	Fresh Fr pulp used.	Sn & Sc		
10	Kukka vominta	<i>Cleome viscosa</i>	Cleomaceae	L	Crushed L used.	Sc		
11	Vishabuddi	<i>Cryptostegia grandiflora</i>	Apocynaceae	L	L of plant and <i>Aristolochia indica</i> for treatment.	Sn		
12	Kolamukhi	<i>Holarrhena pubescens</i>	Apocynaceae	St B	St B powder used for treatment.	Sn & Sc		
13	Nagamalli	<i>Kigelia Africana</i>	Bignoniaceae	R	R juice poured into eyes.			
14	Nemali chettu	<i>Oroxylum indicum</i>	Bignoniaceae	L	Crushed L and garlic poultice used for treatment.	Sc		

(Contd.)

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites (Contd.)

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
15	Enugu palleru	<i>Pedaliium murex</i>	Pedaliaceae	L	Powder prepared by plant L, jaggery from <i>Borassus flabellifer</i> and flour from <i>Tinosporacardifolia</i> used for treatment.	Sn		
16	Jettipaku	<i>Pergulari daemia</i>	Apocynaceae	L	L juice poured into hot gingelly oil, vapors inhaled and L poultice at bite.	Sc		
17	Visha mushti	<i>Strychnos nux-vomica</i>	Loganiaceae	S	Seed paste applied on eyelet.	Sn		
18	Visha mushti	<i>Strychnos nux-vomica</i>	Loganiaceae	S	Seed paste applied.	Sc		
19	Visha mushti	<i>Strychnos nux-vomica</i>	Loganiaceae	R	Paste prepared by using R of <i>S. nuxvomica</i> , <i>Decalepishamiltonii</i> , <i>Solanum pubescens</i> , <i>Alangiumsalvifolium</i> , <i>Pongamia pinnata</i> , <i>Randiadumatorum</i> and <i>Azadirachta indica</i> used for treatment.	Sn		
20	Chinnamushti	<i>Strychnos potatorum</i>	Loganiaceae	St B	Powder of stem barks of <i>S. potatorum</i> and <i>S.colubrina</i> is mixed in cow urine for treatment.			
21	Tippa teega	<i>Tinospora cordifolia</i>	Menispermaceae	R	Paste prepared by using R of <i>T. cordifolia</i> and S of <i>Sessamumalatum</i> are licked or applied externally to eyes.			
22	Pennurugadda	<i>Winthania somnifera</i>	Solanaceae	R	R paste prepared, taken orally.			
23	Nilavembu	<i>Andrographis paniculata</i>	Acanthaceae	L	Paste of L applied topically at bitten.	Sc	Tamilnadu	Malayali ⁴⁴
24	Kundumani	<i>Abrus precatorius</i>	Fabaceae	R	R powder taken orally with cow's milk.	Sn & Sc		
25	Amrutha balli	<i>Tinospora cordifolia</i>	Menispermaceae	L	L juice with garlic paste applied on spot and also taken orally.	Sn	Karnataka	Lambanis, Hakki-pikki, Lenukurubas and Fruligas ⁴⁵
26	Jali mara	<i>Acacia arabica</i>	Mimosaceae	L	L and areca nut with betel L paste is applied.			
27	Thursegida	<i>Urtica dioica</i>	Urticaceae	R	R extract with cow urine, pepper and garlic applied on spot.			
28	Adumuttadagida	<i>Tylophora asthmatica</i>	Apocynaceae	R	R extract with pepper and garlic or onion juice taken orally.			

(Contd.)

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites (Contd.)

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
29	Havina gedde	<i>Ophiorrhiza mungos</i>	Rubiaceae	R	R extract with powder of gulaganji (white) to make paste, apply and also given orally.			
30	KempuUttarani	<i>Achyranthes aspera</i>	Amaranthaceae	R	R extract applied and taken orally also.			
31	Eshwari gida	<i>Aristolochia indica</i>	Aristolochiaceae	R	Fresh R extract along with pepper applied on spot.			
32	Nugge	<i>Moringa pterygosperma</i>	Moringaceae	G	G extract applied on affected area.			
33	Ekke	<i>Calotropis gigantean</i>	Apocynaceae	Lt	Lt mixed with asafoetida grind well and applied on spot.			
34	Adusoge	<i>Adathoda vasaka</i>	Adathodavasaka	R	R paste with goat milk given orally.			
35	Kare	<i>Canthium parviflorum</i>	Rubiaceae	R	R mixed with goat milk give orally and paste applied on spot.			
36	Kadu menasu	<i>Todalia asiatica</i>	Rutaceae	L	L paste with garlic and pepper given orally.			
37	Champa gam	<i>Michelia champaca</i>	Magnoliaceae	L	L juice taken orally.	Sc	Tamilnadu	Malayali ⁴⁶
38	Sitaphal	<i>Annona squamosal</i>	Annonaceae	R & RB	R paste for external application. R B decoction orally.	Sn		
39	Perunkattukodi	<i>Tiliacora acuminata</i>	Menispermaceae	L & R	L paste applied on bitten area and R decoction given in 50 mL immediately and thrice a day.			
40	Perammathandu	<i>Argemone mexicana</i>	Papaveraceae	R & Lt	Lt and yellow juice of plant given orally. R paste for local application.	Sc		
41	Gratean Java cotton	<i>Ceiba pentandra</i>	Malvaceae	R	R paste for external application.			
42	Karadi kasavu	<i>Grewia gamblei</i>	Tiliaceae	L & R B	L juice and R bark taken orally.			
43	Perumanivaatti	<i>Biophytum candolleianum</i>	Oxalidaceae	L	L paste taken internally.			
44	Kasi thumbai	<i>Impatiens balsamina</i>	Balsaminaceae	L	Juice from L treats snake bite.	Sn		
45	Vila	<i>Limonia acidissima</i>	Rutaceae	R	50 mL of R juice mixed with hot water is used to treat.			
46	Maga vilvam	<i>Naringi crenulata</i>	Rutaceae	R	R taken orally to cure.			
47	Kundumani	<i>Abrus precatorius</i>	Fabaceae	R	R used for externally.	Vn		
48	Seemaiyagathi	<i>Cassia alata</i>	Fabaceae	L	Paste of L applied externally.	Sn		

(Contd.)

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites (Contd.)

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
49	Poonavarai	<i>Cassia siamea</i>	Fabaceae	Wp	1.5-3 g for laxation, 5~10 g for purgation. Herb soaked in boiling water for 5 min, administered orally.			
50	Usilai	<i>Albizia amara</i>	Fabaceae	L, R & B	Paste of L, R and bark with R B of <i>Jasminum angustifolium</i> and Rh of <i>Cyperus rotundus</i> heated with neem oil and applied externally on affected places for 10 days.	Sn & Sc		
51	Nintralsurungi	<i>Mimosa hamate</i>	Mimosaceae	St	1 glass infusion of fresh St administered.	Sn		
52	Katakataka	<i>Kalanchoe pinnata</i>	Crassulaceae	L	L paste for external application.	Sc		
53	Nurai peerku	<i>Luffa cylindrical</i>	Cucurbitaceae	L	L milk administered orally.	Sn		
54	Kodi urinchi	<i>Neanotis monosperma</i>	Rubiaceae	L, R & St	Powder of L, R & St applied externally.	Sc		
55	Manchal	<i>Eclipta alba</i>	Asteraceae	Wp	Wp juice given orally.	Sn		
56	Karisalanganni	<i>Eclipta prostrate</i>	Asteraceae	L	L paste applied externally.			
57	Mukkuttipunta	<i>Vernonia cinerea</i>	Compositae	Wp	Wp juice taken orally.	Sc		
58	Mul sanguyelai	<i>Azima tetraantha</i>	Salvadoraceae	L	Leave paste applied externally.	Dg		
59	Anali vegam	<i>Alstonia venenata</i>	Apocynaceae	R	R paste applied externally.	Sn & Vn		
60	Karunkodi	<i>Cryptolepis buchananii</i>	Apocynaceae	Lt	Lt applied externally.	Vn		
61	Asthamakodi	<i>Tylophora indica</i>	Apocynaceae	L	50 ml of L juice mixed with hot water given orally. L paste applied externally.	Sn		
62	Ettimaram	<i>Strychnos nux-vomica</i>	Loganiaceae	B	B grounded with milk applied.	Sc & Vn		
63	Thel kodukupoondu	<i>Heliotropium indicum</i>	Boraginaceae	L	L juice applied.	Sc		
64	Neerbrami	<i>Bacopa monnieri</i>	Plantaginaceae	Wp	Wp paste applied externally.	Dg		
65	Sarkaraivempu	<i>Scoparia dulcis</i>	Plantaginaceae	Wp	Wp used in treatment.	Sn		
66	Keeriparandai	<i>Andrographis affinis</i>	Acanthaceae	L	L decoction given orally.			
67	Periyangai	<i>Andrographis alata</i>	Acanthaceae	L	L paste and R paste used externally.			
68	Gopuranthangi	<i>Andrographis echinoides</i>	Acanthaceae	Wp	Fresh R paste used for treatment.			

(Contd.)

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites (Contd.)

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
69	Tarpoondu	<i>Andrographis neesiana</i>	Acanthaceae	L	L paste applied externally.			
70	Kiriathu	<i>Andrographis ovate</i>	Acanthaceae	Wp	About 25 g, Wp paste for every 4 h up to 12 h works as antidote.			
71	Siriya nangai	<i>Andrographis paniculata</i>	Acanthaceae	L	L paste mixed with milk taken orally.			
72	Kattupoorankodi	<i>Andrographis serpyllifolia</i>	Acanthaceae	L	L decoction given fortreatment.			
73	Nilam baram	<i>Barleriastrigosa</i>	Acanthaceae	R	R paste used as antidote.			
74	Thavasimurungai	<i>Justicia tranquebariensis</i>	Acanthaceae	L	50 mL of L juice given orally, L paste applied externally.			
75	Naga malli	<i>Rhinacanthus nasutus</i>	Acanthaceae	L & R	R juice and L used for Sn.			
76	Pacimiratti	<i>Anisomeles indica</i>	Lamiaceae	L	L paste used.			
77	Peymarutti	<i>Anisomeles malabarica</i>	Lamiaceae	L	L juice taken orally.			
78	Kuppa cheera	<i>Amaranthus viridis</i>	Amaranthaceae	L	L used as emollient.	Sc		
79	Aaduthinnapaalai	<i>Aristolochia bracteolata</i>	Aristolochiaceae	Wp	Wp paste applied externally.	Sn		
80	Eswara mooli	<i>Aristolochia indica</i>	Aristolochiaceae	R	R paste is used for Sn.			
81	Nelli	<i>Emblica officinalis</i>	Euphorbiaceae	L & Fr	L and Fr juice taken orally.	Sn		
82	Illaikalli	<i>Euphorbia nivulia</i>	Euphorbiaceae	St	St mixed with green ginger given.	Dg		
83	Manchal	<i>Curcuma longa</i>	Zingiberaceae	Rh	Rh paste applied externally.	Sn		
84	Koonthalpanai	<i>Caryotaurens</i>	Arecaceae	R	It is used internally for.			
85	Thenna maram	<i>Cocos nucifera</i>	Arecaceae	Fr	Ash of coconut shell mixed with coconut oil applied externally.	Vn In		
86	Uttareni	<i>Achyranthes aspera</i>	Amaranthaceae	St B	St B decoction taken orally.	Sn	Andhra Pradesh	Sugali ⁴⁷
87	Tootakura	<i>Amaranthus viridis</i>	Amaranthaceae	S	St is used as antidote.			
88	Sambrani	<i>Bacopa monnieri</i>	Plantaginaceae	L	Intake of L powder decoction.			
89	Moullagorinta	<i>Barleria prionitis</i>	Acanthaceae	R	Decoction taken orally.			
90	Kasinda	<i>Cassia occidentalis</i>	Fabaceae	R	Oral administration of R paste.			
91	Pedda kasinda	<i>Cassia tora</i>	Fabaceae	R	R antidote against Sn.			
92	Tella Buruga	<i>Ceiba pentandra</i>	Malvaceae	R	Oral administration of R paste for Sn.			
93	Makkadambru	<i>Lantana indica</i>	Verbenaceae	L	L juice administered orally.			
94	Gutti Beera	<i>Luffa cylindrical</i>	Cucurbitaceae	L	Juice (10-15 mL), administered orally.			
95	Musli	<i>Rhinacanthus nasutus</i>	Acanthaceae	L	Juice given orally.			

(Contd.)

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites (Contd.)

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
96	Kannupeelai	<i>Aerva lanata</i>	Amaranthaceae	Wp	Wp juice given orally.	Vn	Tamilnadu	Kani ⁴⁸
97	Kattuelumitchai	<i>Atalantia monophylla</i>	Rutaceae	Fr	Decoction given orally.			
98	Vembu	<i>Azadirachta indica</i>	Meliaceae	St B	Paste given orally.			
99	Sirukurinchan	<i>Gymnema sylvestre</i>	Apocynaceae	L	L powder administered orally.	Sn & Sc		
100	Milagu	<i>Piper nigrum</i>	Piperaceae	Fr	Fruit powder taken orally.	Sn		
101	Notchi	<i>Vitex negundo</i>	Lamiaceae	L	Paste is taken orally.	Vn		
102	Saganaara	<i>Sansevieria roxburghiana</i>	Asparagaceae	L	L crushed with a pinch of calcium carbonate and slightly warmed then applied topically.		Andhra Pradesh	Chenchu ⁴⁹
103	Tella Easwari	<i>Aristolochia indica</i>	Aristolochiaceae	R	R are used as antidote.	Sn		
104	Aakasagaruda	<i>Corallocarpus epigaeus</i>	Cucurbitaceae	St B	Decoction drunk with a pinch of copper sulphate.	Vn		
105	Manchitulasi	<i>Ocimum tenuiflorum</i>	Lamiaceae	L	Paste used as antidote.	Sc		
106	Vishamusti	<i>Strychnos nux-vomica</i>	Loganiaceae	S	Paste applied as an antidote.			
107	Siriyanangai	<i>Andrographis lineata</i>	Acanthaceae	L	Paste applied externally.	Sn & Sc	Tamilnadu	Peliyar ⁵⁰
108	Periyanangai, Nilavembu	<i>Andrographis paniculata</i>	Acanthaceae	L	Paste applied externally.			
109	Nangilai	<i>Tylophora indica</i>	Asclepiadaceae	L & R	Paste of L and R is mixed with equal amount of R paste of <i>Rauwolfia serpentina</i> and applied externally and L juice is taken orally.	Sn		
110	Siriyanangai	<i>Andrographis paniculata</i>	Acanthaceae	L	Decoction, orally thrice a day for 2 days.	Vn		Paliyar & Muthuvar ¹⁵
111	Sivan mooligai	<i>Aristolochia indica</i>	Aristolochiaceae	R B	2 g of R B ground with water, taken orally empty stomach twice a day for a week.			
112	Kollan-kovai	<i>Corallocarpus epigaeus</i>	Cucurbitaceae	T	Juice is mixed with urine (for male - female urine and for female - male urine) and applied.			
113	Punnakkupundu	<i>Justicia tranquebariensis</i>	Acanthaceae	L	L paste tied with cloth on bite.	Dg		
114	Periaanangai	<i>Andrographis paniculata</i>	Acanthaceae	L	Paste taken orally.	Sn		Irula ⁵¹
115	Kennathumbai	<i>Leucas aspera</i>	Lamiaceae	L	Paste taken both externally & internally.			

(Contd.)

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites (Contd.)

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
116	Nauruvi	<i>Achyranthes aspera</i>	Amaranthaceae	L	Paste with onion is applied externally.	Dg		
117	Sinathamani chedi	<i>Croton sparsiflorus</i>	Euphorbiaceae	Lt	Latex applied externally	Ws		
118	Chevvalikodi	<i>Rubia cordifolia</i>	Rubiaceae	L	Paste is applied topically.	Sc		
119	Thiramanu	<i>Anogeissus latifolia</i>	Combretaceae	St B	Paste applied externally.		Andhra Pradesh	Chenchu & Yanadi ⁵²
120	Tangedu	<i>Cassia auriculata</i>	Fabaceae	L	Juice dropped into ears.			
121	Gurugu	<i>Coelosia argentea</i>	Amaranthaceae	L	Paste applied externally.			
122	Billudu	<i>Chloroxylon swietenia</i>	Rutaceae	St B	Fresh St B ground in urine applied.			
123	Paralagaddalu	<i>Dioscoria oppositifolia</i>	Dioscoreaceae	R	Powdered R mixed with cow urine is applied.			
124	Gummudu	<i>Gmelina arborea</i>	Lamiaceae	L	Paste applied externally.			
125	Chilla ginjalu	<i>Strychnos potatorum</i>	Loganiaceae	S	Paste applied externally.			
126	Rela	<i>Cassia fistula</i>	Fabaceae	W	W paste applied externally.	In		
127	Poliki	<i>Gyrocarpus americanus</i>	Hernandiaceae	St B	Infusion given orally.	Sp		
128	Kunkudu	<i>Sapindus emarginatus</i>	Sapindaceae	En	En infusion mixed with small amount of tamarind given orally for thrice a day.	Cn		
129	Vedathalai	<i>Dichrostachys cinerea</i>	Fabaceae	R	powder used to treat Sn.	Sn	Tamilnadu	Malasar ⁵³
130	Sirukurinjan	<i>Gymnema sylvestre</i>	Apocynaceae	L	Powder taken orally.	Sn & Sc		
131	Avuri	<i>Indigofera caerulea</i>	Fabaceae	L	Paste, <i>Leucas aspera</i> L and pepper taken orally.	Sn		
132	Kuppaimeni	<i>Acalypha indica</i>	Euphorbiaceae	L	Decoction used for Sn.			Irula ⁵⁴
133	Sangu pushpam	<i>Clitoria ternatea</i>	Fabaceae	Wp	Entire plant used as antidote.			
134	Nilathulasi	<i>Geniosporum tenuiflorum</i>	Lamiaceae	Wp	Plant paste mixed with limestone and applied.	Fs		
135	Thumbai	<i>Leucas aspera</i>	Lamiaceae	Wp	Preparation of plant for 40 days makes one resistant to Sn.	Sn		
136	Takkili	<i>Clerodendrum phlomidis</i>	Lamiaceae	L	Oral administration of 1-2 spoons of powder with a glass of hot water twice per day upto 7 days.	In	Andhra Pradesh	Yanadi ⁵⁵
137	Maredukommulu	<i>Decalepis hamiltonii</i>	Apocynaceae	R & T	1-2 spoons of powder taken orally thrice per day up to 7 days.	Sn & Sc		

(Contd.)

Supplementary Table 4 — Ethnomedicinal account of tribes of South zone for animal bites (Contd.)

South Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
138	Chenchellaku	<i>Digera arensis</i>	Amaranthaceae	L	Licking of L paste with admixture of jaggery.	Sc		
139	Kakibeera	<i>Hugonia mystax</i>	Linaceae	L	Oral administration of 4-6 drops of juice upto 7-15 days.	Sn & Sc		
140	Pindikonda	<i>Justicia tranquebariensis</i>	Acanthaceae	L	External application of L paste with admixture of turmeric powder.	Rt		
141	Telikondikaya	<i>Martynia annua</i>	Martyniaceae	L	External application of crushed L with admixture of pinch of limestone.	Sc		
142	Budidhapallu	<i>Scutia myrtina</i>	Rhamnaceae	R	Licking of R paste with gingelly oil thrice per day up to 3 days.	Sn & Sc		
143	Mushti	<i>Strychnos nux-vomica</i>	Loganiaceae	St	Oral intake of paste thrice per day up to 3 days.			
144	Nosintaku	<i>Tragia involucrate</i>	Euphorbiaceae	L	Oral intake of 2 capsules per day up to 3 days and continued up to 5-6 days with a glass of milk.			
145	Gotti	<i>Ziziphus xylopyrus</i>	Rhamnaceae	R	Oral intake of 10-15 mL of R decoction prepared with admixtures of <i>Curcuma aromatica</i> T and <i>Piper longum</i> Frpowder for 3 days.	Sn		

Supplementary Table 5 — Ethnomedicinal account of tribes of East zone for animal bites

East Zone								
S.no.	Vernacular name	Botanical name	Family name	Part used	Administration	Type of Bite	State	Tribe
1	Apang	<i>Achryanthes aspera</i>	Amaranthaceae	R	R grounded, filtrate taken with 2-3 black pepper.	Sn	West Bengal	Santhal, Munda, Lodha & Oraon ⁵⁶
2	Bach	<i>Acorus calamus</i>	Acoraceae	Rh	Paste given with warm water.			
3	Rosun	<i>Allium sativum</i>	Amaryllidaceae	Bl	Paste given orally.			
4	Kalmegh	<i>Andrographis paniculata</i>	Acanthaceae	L	Powder taken orally.			
5	Ishwarmul	<i>Aristolochia indica</i>	Aristolochiaceae	R	Juice given orally.			
6	Nim	<i>Azadirachta indica</i>	Meliaceae	L	L ash rubbed into scarifications around Sn and L decoction taken orally.			
7	Akanda	<i>Calotropis gigantean</i>	Apocynaceae	R B & Lt	R B paste made into pills. Lt is applied over the bitten area.			

(Contd.)

Supplementary Table 5 — Ethnomedicinal account of tribes of East zone for animal bites (Contd.)

East Zone								
S.no.	Vernacular name	Botanical name	Family name	Part used	Administration	Type of Bite	State	Tribe
8	Dhutura	<i>Datura metel</i>	Solanaceae	R	R extract taken with garlic.			
9	Amla	<i>Emblica officinalis</i>	Euphorbiaceae	R	R extract given orally with black pepper.			
10	Manasa	<i>Euphorbia neriifolia</i>	Euphorbiaceae	Lt	Lt applied locally on wound.			
11	Gurmar	<i>Gymnema sylvestre</i>	Apocynaceae	L	Juice applied on bitten area.			
12	Anantmula	<i>Hemidesmus indicus</i>	Apocynaceae	R	R ground with Bl of <i>Allium sativum</i> (1:1). Paste is applied.			
13	Patharkuchi	<i>Kalanchoe pinnata</i>	Crassulaceae	L	1-2 spoons of L decoction given every 1hr afterSn.			
14	Lajjabatilata	<i>Mimosa pudica</i>	Fabaceae	L	L grounded, made into paste and applied.			
15	Sajna	<i>Moringa oleifera</i>	Moringaceae	R	Paste given orally.			
16	Sarpagandha	<i>Rauvolfia serpentina</i>	Apocynaceae	R	R paste along with that of <i>Azadirachta indica</i> and black pepper S made into paste and extract administered orally.			
17	Tetul	<i>Tamarindus indica</i>	Fabaceae	S	Extract given in Sn.			
18	Guduchi, Gulanchi	<i>Tinospora cordifolia</i>	Menispermaceae	R	R grounded along with that of <i>Rauvolfia serpentina</i> (1:1), made into pills and administered with warm water.			
19	Nishindi	<i>Vitex negundo</i>	Lamiaceae	R & L	L paste applied and R extract given with warm water.			
20	Ashwagandha	<i>Winthania somnifera</i>	Solanaceae	R	R decoction administered orally.			
21	Ankula	<i>Alangium salviifolium</i>	Cornaceae	Wp	Antidote	Sn & Dg	Orissa	Kandha, Ganda & Sabara ⁵⁷
22	Brudhadaraka	<i>Argyrea speciosa</i>	Convolvulaceae	R	R powder snuffed, R paste applied locally.	Sn		
23	Nagbel	<i>Aristolochia indica</i>	Aristolochiaceae	R	R powder snuffed, R juice taken orally and R paste applied locally.			
24	Papita	<i>Cassia fistula</i>	Fabaceae	Lt	Few drops of Lt are applied over wound Sn.			
25	Akanbindi	<i>Cissampelos pariera</i>	Menispermaceae	R	Powder taken orally.	In		
26	Kalahaldi, Krushna kedara	<i>Curcuma caesia</i>	Zingiberaceae	Rh	Rh rubbed in stone with water and few drops administered into nostril for 2-4 times for a day.	Sn		
27	Goral, Godal	<i>Millettia extensa</i>	Fabaceae	R	Paste applied topically.	Dg		
28	Jada	<i>Ricinus communis</i>	Euphorbiaceae	Wp	Oil is made from plant, drops applied locally.	In		
29	Tamaku Kana, Khaini	<i>Nicotiana tabacum</i>	Solanaceae	L	L are chew then apply topically.	Sc	Jharkhand	Birhore ⁵⁸

(Contd.)

Supplementary Table 5 — Ethnomedicinal account of tribes of East zone for animal bites (Contd.)

East Zone								
S.no.	Vernacular name	Botanical name	Family name	Part used	Administration	Type of Bite	State	Tribe
30	Nadnaur	<i>Andrographis echiooides</i>	Acanthaceae	Wp	Paste of Wp is given orally and also applied on body.	Sn		Oraon ⁵⁹
31	Isharmul	<i>Aristolochia indica</i>	Aristolochiaceae	R	R paste of <i>Aristolochia indica</i> and <i>Rauwolfiaserpentina</i> given orally, also paste applied in body part.			
32	Gadsa	<i>Calotropis gigantea</i>	Apocynaceae	R B	R B applied as painkiller.			
33	Sonarkhi	<i>Cassia fistula</i>	Fabaceae	R B	R B paste mixed black pepper, given orally for cobra bite. In case of Karait poison, the R of <i>Ichnocarpusfructescens</i> is added in the above preparation.			
34	Jahai juhi	<i>Mirabilis jalapa</i>	Nyctaginaceae	T	Tuber paste given orally.			
35	Dugdowel	<i>Oroxylum indicum</i>	Bignoniaceae	B	B of <i>Oroxylum indicum</i> and <i>Gardenia turgida</i> powdered and dissolved pure liquor of <i>Madhuca indica</i> then solution given orally.	Dg		
36	Nagbael	<i>Rauwolfia serpentina</i>	Apocynaceae	R	R paste of <i>Rauwolfia serpentina</i> and <i>Aristolochia indica</i> given orally, paste also applied in body part.	Sn		
37	Munya arxa	<i>Tridax procumbens</i>	Asteraceae	L	Juice of crushed L dripped on wound of karait & cobra bite. Some juice is applied on body part.			
38	Charaigorh	<i>Vitex penduncularis</i>	Lamiaceae	B	Paste solution given orally for viper bite.			
39	Iswarmula	<i>Aristolochia indica</i>	Aristolochiaceae	R	R paste with paste of 6-7 long pepper is given orally.		Orissa	Santal, Kol, Bhomij, Bhuyan, Bathuri, Kharia, Gonds, Mankdias, Pauri-Bhuyan, Saharias, Mahalis and Sounti ⁶⁰
40	Ark	<i>Calotropis gigantea</i>	Apocynaceae	L	L juice mixed with cardamom, mutton and jaggery given orally.			
41	Patalgarudaa	<i>Rauwolfia serpentina</i>	Apocynaceae	R	R powder mixed with black pepper, 1 teaspoonful taken with 1 cup water twice day for 2 days.			
42	Rakta pichula	<i>Ventilago maderaspatana</i>	Rhamnaceae	B	Boiled B in water for 2 hours, infusion given orally.			
43	Puruni	<i>Boerhavia diffusa</i>	Nyctaginaceae	Wp	Plant paste with black pepper given orally and applied.			Kandha ⁶¹
44	Gayasa	<i>Leucas aspera</i>	Lamiaceae	L	L paste with black pepper given and L juice poured into nostrils.			

(Contd.)

Supplementary Table 5 — Ethnomedicinal account of tribes of East zone for animal bites (Contd.)

East Zone								
S.no.	Vernacular name	Botanical name	Family name	Part used	Administration	Type of Bite	State	Tribe
45	Kalavalia	<i>Semecarpus anacardium</i>	Anacardiaceae	B	Bark paste used as antidote.	In, Dg & Jk		
46	Ruhen	<i>Soymida febrifuga</i>	Meliaceae	St B	Juice taken orally.	Sn		Didayi ⁶²
47	Abijal	<i>Drymaria cordata</i>	Caryophyllaceae	Wp	Wp is antidote.		West Bengal	Gurung ⁶³

Supplementary Table 6 — Ethnomedicinal account of tribes of North-East/ Island zone for animal bites

North-East Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
1	Chakawkria	<i>Adiantum caudatum</i>	Pteridaceae	Fo	Paste of 5 – 7 Fo applied.	In & Sc	Mizoram	Lusei, Pawis, Paites, Raltes,
2	Aidu	<i>Amomum dealbatum</i>	Zingiberaceae	I	Paste of 1 – 2 young In applied.	Be		Pangs, Hmars ⁶⁴
3	Hruichun	<i>Butea superba</i>	Fabaceae	R & L	Infusion of R and crushed L applied.	Sn		
4	Tlangsam	<i>Chromolaena odorata</i>	Asteraceae	L	About 3 – 5 crushed L applied on wound.	Lc & Be		
5	Dawl	<i>Colocasia esculenta</i>	Araceae	Pt	Acrid juice of Pt applied.	Be		
6	Aeing	<i>Curcuma longa</i>	Zingiberaceae	Rh	Crushed Rh applied.	In		
7	Lengser	<i>Elsholtziagriffithii</i>	Lamiaceae	L	Paste of 6-10 crushed L applied.			
8	Bahkhawr	<i>Eryngium foetidum</i>	Apiaceae	Wp	Wp including R consumed.	Sn		
9	Fartuah	<i>Erythrina variegata</i>	Fabaceae	St B	Paste applied externally.			
10	Aithur	<i>Hedygium spicatum</i>	Zingiberaceae	Rh	Paste applied.			
11	Herhse	<i>Mesua ferrea</i>	Calophyllaceae	L	Paste of 1 - 2 L applied.	Sn & Sc		
12	Japan-hlo	<i>Mikania micrantha</i>	Asteraceae	L	Juice extracted from 5 – 10 L applied 2 – 3 times externally.	In		
13	Hlonaur	<i>Mimosa pudica</i>	Fabaceae	Wp	Juice of Wp applied 2 – 3 times.	Sc & Sp		
14	Vakep	<i>Mussaenda roxburghii</i>	Rubiaceae	R & L	Juice of R and L applied 3 - 4 times.	Sc		
15	Vaihlo	<i>Nicotiana tabacum</i>	Solanaceae	L	Infusion of 8 – 10 L applied 1 – 2 times.	Lc		
16	Tulsi	<i>Ocimum tenuiflorum</i>	Lamiaceae	R	Paste prepared from fresh R applied.	In & Lc		
17	Khiang	<i>Schima wallichii</i>	Theaceae	Fr & B	Juice prepared from Fr and peel applied 2 – 3 times. B paste also applied.	Be, Sp, Sc & Sn		
18	Perhpawngchaw	<i>Scoparia dulcis</i>	Plantaginaceae	Wp	Infusion prepared from 4-5 Wp applied locally.	Sn		
19	Chhahwhchi	<i>Sesamum indicum</i>	Pedaliaceae	L	Juice prepared from 3 – 5 L applied 2 – 3 times.	Be		
20	Keltebengbeh	<i>Tabernaemontana divaricata</i>	Apocynaceae	L & Fl	L and Fl paste applied.	Sc		

(Contd.)

Supplementary Table 6 — Ethnomedicinal account of tribes of North-East/ Island zone for animal bites (Contd.)

North-East Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribes
21	Ching-it	<i>Zanthoxylum oxyphyllum</i>	Rutaceae	L	Paste of 8 – 10 matured L applied.	An & Be		
22	Nya ho long tang	<i>Artemisia nilagirica</i>	Asteraceae	Wp	Wp used in treatment.	Dg	Nagaland	Phom-Naga ⁶⁵
23	Phiphi	<i>Drymaria cordata</i>	Caryophyllaceae	L	L used in treatment.	Sn & In		
24	Yongkumpukum	<i>Kalanchoe pinnata</i>	Crassulaceae	L	L used in treatment.	In		
25	Jang aso	<i>Mikania cordata</i>	Asteraceae	L & St	L & St used in treatment.			
26	Vau thung	<i>Mimosa pudica</i>	Fabaceae	L	L given in treatment.			
27	Harsunkelok	<i>Allium sativum</i>	Amaryllidaceae	L	L paste applied twice daily.	Sn	Assam	Karbi ⁶⁶
28	Thesotumeng	<i>Citrus limon</i>	Rutaceae	St B	St B powder with water given.			
29	Tharmit	<i>Curcuma longa</i>	Zingiberaceae	Rh	Paste is applied.	Lc		
30	Thesumphrak	<i>Datura metel</i>	Solanaceae	Fr	Calculated dose of Fr juice given once daily.	Dg		
31	Ruidoksudo	<i>Dioscorea alata</i>	Dioscoreaceae	Wp	Paste applied twice daily till recovery.	Sn		
32	Habit sokkedak	<i>Dioscorea bulbifera</i>	Dioscoreaceae	Bl	Paste applied locally or take orally.	Dg		
33	Pranpree	<i>Garcinia pedunculata</i>	Clusiaceae	Fr	Paste applied locally once daily for 3 days.	Sn & Sp		
34	Bithiphaknur	<i>Kaempferia galanga</i>	Zingiberaceae	Wp	Paste of Wp applied 3 times.	Dg & Pi		
35	Bong	<i>Lagenaria siceraria</i>	Cucurbitaceae	L	Paste applied locally as analgesic.	Be		
36	Bujir	<i>Marsdenia tinctoria</i>	Apocynaceae	L	Paste applied twice daily for 3 days on wounds.	Dg		
37	Hunmiliamir	<i>Mirabilis jalapa</i>	Nyctaginaceae	R	R extraction taken twice daily for 3 days.	Sn		
38	Lopong	<i>Ocimum canum</i>	Lamiaceae	L	Paste applied locally twice daily for 3 days.	Sn & Fg		
39	Loruphanche	<i>Phrynium pubenerve</i>	Marantaceae	R	Extract of given orally.	Sn		
40	Ahom birik	<i>Piper nigrum</i>	Piperaceae	Fr	Paste applied on wounds.	Dg		
41	Hanbipo	<i>Pogostemon purviflorus</i>	Lamiaceae	L	Paste or decoction given three times daily for 3 days.	Sn		
42	Mirherai	<i>Psilanthus bengalensis</i>	Rubiaceae	R	R along with other plants made into paste.	Dg		
43	Tibong	<i>Saccharum bengalense</i>	Poaceae	R	R paste taken orally, applied locally thrice daily till recovery.	Sn		
44	Mikiakuiang	<i>Abrus precatorius</i>	Fabaceae	S	A pinch of powdered S mixed with <i>Andrographis paniculata</i> seed powder, consumed with lemon juice.		Arunachal Pradesh	Khamti ⁶⁷
45	Hirota	<i>Andrographis paniculata</i>	Acanthaceae	S	S powder given orally.			

(Contd.)

Supplementary Table 6 — Ethnomedicinal account of tribes of North-East/ Island zone for animal bites (Contd.)

North-East Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
46	Kuchiamia	<i>Holarrhena pubescens</i>	Apocynaceae	B	Pills made up of B taken orally.	Dg	Tripura	Reang ⁶⁸
47	Samai	<i>Baccaurea ramiflora</i>	Phyllanthaceae	R	Paste applied externally.	In		
48	Jati Bet	<i>Calamus viminalis</i>	Arecaceae	R	R juice of <i>Calamus viminalis</i> mixed with cow's milk; sugar added, administered empty stomach in morning for 3 days.	Dg	Assam	Tai-Khamyang ⁶⁹
49	Radhongminto	<i>Brugmansia suaveolens</i>	Solanaceae	S	Decoction is applied.		Sikkim	Bhutia ⁷⁰
50	Singar	<i>Alstonia scholaris</i>	Apocynaceae	B & R	B and R grinded, taken orally.	Sn	Arunachal Pradesh	Adi ⁷¹
51	Biuleng, Ootang	<i>Bambusa nutans</i>	Poaceae	L, St & B	Decoction taken orally.	Dg	Manipur	Zeliangrong ⁷²
52	Phitpanew	<i>Drymaria cordata</i>	Caryophyllaceae	L	Juice is taken orally.	Sn		
53	Negk	<i>Musa paradisiaca</i>	Musaceae	Pt	Pt applied topically.			
54	Rui-Bang	<i>Sansevieria trifasciata</i>	Asparagaceae	L	Paste is applied.	Sn, Dg & In		
55	Akllencha (Beng)	<i>Alternanthera sessilis</i>	Amaranthaceae	St & L	St and L paste applied.	Sn	Assam	Barman, Riang, H'mar,
56	Barpai, Shyamsata	<i>Ocimum sanctum</i>	Lamiaceae	R	R is used as antidote.	Sn & Sc		Kuki, Vaiphei ⁷³
57	Tengtere, Taintai	<i>Tamarindus indica</i>	Fabaceae	S	S are useful in snake bite.	Sn		
Island Zone								
S. no.	Vernacular name	Botanical name	Family Name	Part used	Administration	Type of Bite	State	Tribe
1	Ampili	<i>Annona squamosa</i>	Annonaceae	Wp	Bitten area washed with <i>Annona squamosa</i> juice.	Sn	Andaman & Nicobar island	Car-nicobarese ⁷⁴
2	Kata-hul	<i>Datura metel</i>	Solanaceae	L	Paste applied at bitten area.			
3	Fah	<i>Microsorium punctatum</i>	Polypodiaceae	L	Tender L paste applied on incision as anti-venom ointment.			
4	Ki-yop	<i>Oplismenus compositus</i>	Poaceae	Wp	Incision warmed in smoke produced by putting green plant on fire.			
5	Torulelu	<i>Drypetes assamica</i>	Putranjivaceae	L	Juice applied externally.			Onge & Jarawas ⁷⁵
6	Keokand	<i>Costus speciosus</i>	Costaceae	Rh	Juice given orally.		Bay Islands	Tribals of Bay Island ⁷⁶
7	Hota thu	<i>Eclipta alba</i>	Asteraceae	Wp	Macerated Wp applied topically.		Andaman & Nicobar island	Karen ⁷⁷
8	Garehtuh	<i>Gliricidia sepium</i>	Fabaceae	R	Macerated R applied topically.			
9	Guthaysu	<i>Justicia sumatrana</i>	Acanthaceae	L	Macerated L applied topically.			
10	Lohpeh	<i>Lannea coromandelica</i>	Anacardiaceae	B	Macerated B applied topically.	Sn & Cn		
11	Tawsha	<i>Oroxylum indicum</i>	Bignoniaceae	L	Macerated L are applied topically.			
12	Thaneteegaih	<i>Pongamia pinnata</i>	Fabaceae	R	Macerated R applied topically.	Sn		

Supplementary references

- 17 Singh A K, Raghubanshi A S & Singh J S, Medical ethnobotany of the tribals of sonaghati of Sonbhadra District, Uttar Pradesh, India, *J Ethnopharmacol*, 81 (1) (2002) 31-41, doi: 10.1016/S0378-8741(02)00028-4.
- 18 Bajpai O, Pandey J & Chaudhary L B, Ethnomedicinal uses of tree species by Tharu tribes in the Himalayan Terai Region of India, *Res J Med Plant*, 10 (1) (2016) 19-41, doi: 10.3923/rjmp.2016.19.41.
- 19 Pandey K, Ethno-medicinal practices of a primitive tribe, Raji of Uttaranchal, *S Asian Anthropologist*, 11 (1) (2011) 85-91, <https://www.researchgate.net/publication/328725636>.
- 20 Kumar A, Tewari D D & Pande Y N, Ethno-phytotherapeutics among tharus of beerpur semra forest range of Balrampur District U.P., *J Econ Taxon Bot*, 27 (4) (2003) 839-844.
- 21 Shah A, Avinash B K, Javed A & Sharma M P, New ethnomedicinal claims from Gujjar and Bakerwals tribes of Rajouri and Poonch Districts of Jammu and Kashmir, India, *J Ethnopharmacol*, 166 (2015) 119-28, doi: 10.1016/j.jep.2015.01.056.
- 22 Rana P K, Kumar P, Singhal V K & Rana J C, Uses of local plant biodiversity among the tribal communities of Pangi Valley of District Chamba in Cold Desert Himalaya, India, *Sci World J*, 2014 (1) (2014) 156-171.
- 23 Kumar G & Duggal S, Ethnobotanical wisdom among the Kiratas and Hindu-Gujjar Tribes in Dharampur Region of Mandi District, Himachal Pradesh, India, *Biol Forum*, 11 (1) (2019) 156-71.
- 24 Bartwal M, Chandra V & Rajwar G S, Ethnomedicinal plant diversity among the Jaunsaries in Tons Valley, Uttarakhand, *Forest Diversity: Earth's Living Treasure*, (2011) 109-14.
- 25 Bhatt D, Kumar R, Joshi G C & Tewari L M, Indigenous uses of medicinal plants by the Vanraji Tribes of Kumaun Himalaya, India, *J Med Plants Res*, 7 (37) (2013) 2747-54, doi: 10.5897/JMPR12.1272.
- 26 Ekka N R & Dixit V K, Ethno-pharmacognostical studies of medicinal plants of Jashpur district (Chhattisgarh), *Int J Green Pharm*, 4 (3) (2010) 223-26, doi: 10.4103/0973-8258.69180.
- 27 Kunjam S R, Jadhav S K & Tiwari K L, Traditional herbal medicines for the treatment of snake bite and scorpion sting by the Tribes of South Surguja, Chhattisgarh, India, *Med Aromat Plants*, 02 (01) (2013) 2012-14, doi: 10.4172/2167-0412.1000120.
- 28 Vijendra N & Kumar K P, Traditional knowledge on ethno-medicinal uses prevailing in tribal pockets of Chhindwara and Betul Districts, Madhya Pradesh, India, *Afr J Pharm Pharmacol*, 4 (9) (2010) 662-70.
- 29 Jadhav D, Ethnomedicinal plants used by bhil Tribe of Bibdod, Madhya Pradesh, *Indian J Tradit Know*, 05 (2) (2006) 263-67.
- 30 Jain A K, Vairale M G & Singh R, Folklore claims on some medicinal plants used by Bheel tribe of Guna District Madhya Pradesh, *Indian J Tradit Know*, 9 (1) (2010) 105-07.
- 31 Maheshwari J K, Kalakoti B S & Lal B, Ethnomedicine of Bhil Tribe of Jhabua District, M. P., *Anc Sci Life*, 5 (4) (1986) 255-25561.
- 32 Ahirwar R K, Ethnomedicinal investigations among the Baiga tribes, District Anuppur, Madhya Pradesh, India, *Nelumbo*, 59 (2) (2017) 181-186, doi:10.20324/nelumbo/v59/2017/120450.
- 33 Singh V & Deewan S, Ethnomedicine and tribes : A case study of the Baiga's traditional treatment, *STM J*, 8 (2) (2018) 62-77.
- 34 Ahirwar R K & Shakya V S, Indigenous ethnomedicinal plants used by Baiga tribes in District Mandla, Madhya Pradesh, Central India, *Int J Sci Res*, 4 (6) (2015) 2867-70, <https://www.ijsr.net/archive/v4i6/SUB156032.pdf>.
- 35 Kutty S, Ethnomedicinal plants used for treating scorpion sting and snake bite poison by the tribes of Rahatgaon, Harda, *Int J Ethnobiol Ethnomed*, 1 (1) (2015) 1-2.
- 36 Anis M, Sharma M P & Iqbal M, Herbal ethnomedicine of the Gwalior forest division in Madhya Pradesh, India, *Pharm Biol*, 38 (4) (2000) 241-53.
- 37 Kamble Y S, Patil S R, Sawant P S & Sawant S, Studies on plants used in traditional medicine by Bhilla Tribe of Maharashtra, *Indian J Tradit Know*, 9 (3) (2010) 591-98.
- 38 Jagtap S D, Deokule S S & Bhosle S V, Some unique ethnomedicinal uses of plants used by the Korku Tribe of Amravati District of Maharashtra, India, *J Ethnopharmacol*, 107 (3) (2006) 463-69, doi:10.1016/j.jep.2006.04.002.
- 39 Katewa S S, Chaudhary B L & Jain A, Folk herbal medicines from tribal area of Rajasthan, India, *J Ethnopharmacol*, 92 (1) (2004) 41-46, doi:10.1016/j.jep.2004.01.011.
- 40 Jagtap S D, Deokule S S & Bhosle S V, Some unique ethnomedicinal uses of plants used by the Korku Tribe of Amravati District of Maharashtra, India, *J Ethnopharmacol*, 107 (3) (2006) 463-69, doi:10.1016/j.jep.2006.04.002.
- 41 Singh E A, Kamble S Y, Bipinraj N K & Jagtap S D, Medicinal plants used by the thakar tribes of Raigad district, Maharashtra for the treatment of snake-bite and scorpion bite, *Int J Phytother Res*, 2 (2) (2015).
- 42 Khonde V S, Kale M C & Badere R, Ethnomedicinal plants used by Gond /Madia tribes of Etapalli, Bhamaragarh, Gadchiroli, district Gadchiroli, *Int J Res Biosci Agric Technol*, 2 (2) (2014) 725-33.
- 43 Nataru S, Pulicherla Y, Mattigunta L & Devi V R, Traditional Phytotherapy Treatment for Snake Bite and Scorpion Sting by Ethnic Groups of Kadapa District, Andhra Pradesh, India, *Int J Pharm Sci Rev Res*, 20 (1) (2013) 64-70.
- 44 Rajadurai M, Vidhya V G, Ramya M & Bhaskar A, Ethnomedicinal plants used by the traditional healers of Pachamalai Hills, Tamilnadu, India, *Stud Ethno-Med*, 3 (1) (2009) 39-41, doi:10.1080/09735070.2009.11886335.
- 45 Hiremath V T & Taranath T C, Traditional phytotherapy for snake bites by tribes of Chitradurga District, Karnataka, India, *Ethnobot Leaflets*, 2010 (2) (2010) 2.
- 46 Vaidyanathan D, Senthilkumar M S S & Basha G, Studies on ethnomedicinal plants used by Malayali Tribals in Kolli Hills of Eastern Ghats, Tamilnadu, India, *Asian J Plant Sci Res*, 3(6) (2013) 29-45.
- 47 Basha S K & Sudarsanam G, Traditional use of plants against Snakebite in Sugali Tribes of Yerramalais of Kurnool District, Andhra Pradesh, India, *Asian Pac J Trop Biomed*, 2 (2) (2012) S575-79, doi:10.1016/S2221-1691(12)60276-7.
- 48 Ayyanar M & Ignacimuthu S, Ethnobotanical survey of medicinal plants commonly used by Kani Tribals in Tirunelveli Hills of Western Ghats, India, *J Ethnopharmacol*, 134 (3) Elsevier Ireland Ltd, (2011) 851-64, doi:10.1016/j.jep.2011.01.029.
- 49 Reddy M B, Reddy K R & Reddy M N, A Survey of medicinal plants of Chenchu Tribes of Andhra Pradesh, India, *Pharm Biol*, 26 (4) (1988) 189-96, doi:10.3109/13880208809053918.

- 50 Muthu C, Ayyanar M, Raja N & Ignacimuthu S, Medicinal plants used by traditional healers in Kancheepuram District of Tamil Nadu, India, *J Ethnobiol Ethnomed*, 2 (43) (2006) 1-10, doi:10.1186/1746-4269-2-43.
- 51 Revathi P & Parimelazhagan T, Traditional knowledge on medicinal plants used by the Irula Tribe of Hasanur Hills, Erode District, Tamil Nadu, India, *Ethnobot Leaflets*, 14 (2010) 136-60.
- 52 Ratnam K V & Venkat Raju R R, Folk Remedies for insect bites from Gundlabrahmeswaram Wild Life Sanctuary, Andhra Pradesh, *Indian J Tradit Know*, 7 (3) (2008) 436-37.
- 53 Kumar P P, Ayyanar M & Ignacimuthu S, Medicinal plants used by Malasar Tribes of Coimbatore District, Tamil Nadu, *Indian J Tradit Know*, 06 (4) (2007) 579-82.
- 54 Ragupathy S & Newmaster S G, Valorizing the 'Iruilas' traditional knowledge of medicinal plants in the Kodiakkarai Reserve Forest, India, *J Ethnobiol Ethnomed*, 5 (10) (2009) 1-13, doi:10.1186/1746-4269-5-10.
- 55 Savithamma N, Yugandhar P & Prasad K S, Ethnomedicinal studies on plants used by Yanadi Tribe of Chandragiri Reserve Forest Area, Chittoor District, Andhra Pradesh, India, *J Intercult Ethnopharmacol*, 5 (1) (2016) 49-56, doi:10.5455/jice.20160122065531.
- 56 Sarkhel S, Plants used in treatment of snakebite by the tribal communities, *Int J Pharm Life Sci*, 4 (12) (2013) 3172-77.
- 57 Panda T & Padhy R N, Ethnomedicinal plants used by tribes of Kalahandi District, Orissa, *Indian J Tradit Know*, 07 (2) (2008) 242-49.
- 58 Mairh A K, Mishra P K, Kumar J & Mairh A, Traditional botanical wisdom of Birhore Tribes of Jharkhand, *Indian J Tradit Know*, 9 (3) (2010) 467-70.
- 59 Marandi R R & Britto S J, Ethnomedicinal plants used by the Oraon Tribals of Latehar District of Jharkhand, India, *Asian J Pharm Res*, 4 (3) (2014) 126-33.
- 60 Rout S D, Panda T & Mishra T, Ethno-medicinal plants used to cure different diseases by tribals of Mayurbhanj District of North Orissa, *Stud Ethno-Med*, 3 (1) (2009) 27-32, doi:10.1080/09735070.2009.11886333.
- 61 Behera S, Panda A, Behera S K & Misra M K, Medicinal plants used by the Kandhas of Kandhamal District of Orissa, *Indian J Tradit Know*, 05 (4) (2006) 519-28.
- 62 Pattanaik C, Reddy C S & Murthy M S R, An ethnobotanical survey of medicinal plants used by the Didayi Tribe of Malkangiri District of Orissa, India, *Fitoterapia*, 79 (1) (2008) 67-71, doi:10.1016/j.fitote.2007.07.015.
- 63 Palit D & Gurung S, Some phyto-remedies used traditionally by Gurungs in Darjeeling, West Bengal, India, *Pleione*, 2 (2) (2008) 171-74.
- 64 Khomdram S, Yumkham S D & Colney V L M, Plants used as antidotes against bites of venomous animals in Mizoram, Northeast India, *Pleione*, 12 (2) (2018) 172-179, doi:10.26679/pleione.12.2.2018.172-179.
- 65 Imchen K & Jamir N S, Ethnomedicinal plants used by the Phom-Naga Tribe in Longleng District of Nagaland, India, *Pleione*, 5 (1) (2011) 77-82.
- 66 Teron R & Borthakur S K, Folklore claims of some medicinal plants as antidote against poisons among the Karbis of Assam, India, *Pleione*, 7 (2) (2013) 346-56, [http://www.ehsst.org/journals/Pleione72/005 Poison antidotes in Karbi folklore in Assam.pdf](http://www.ehsst.org/journals/Pleione72/005%20Poison%20antidotes%20in%20Karbi%20folklore%20in%20Assam.pdf).
- 67 Das A K & Tag H, Ethnomedicinal studies of the Khamti Tribe of Arunachal Pradesh, *Indian J Tradit Know*, 05 (3) (2006) 317-22.
- 68 Shil S, Choudhary M D & Das S, Indigenous knowledge of medicinal plants used by the Reang Tribe of Tripura State of India, *J Ethnopharmacol*, 152 (1) Elsevier (2014) 135-41, doi:10.1016/j.jep.2013.12.037.
- 69 Sonowal R & Barua I, Ethnomedicinal practices among the Tai-Khamyangs of Assam, India, *Stud on Ethno-Med*, 5 (1) (2011) 41-50, doi:10.1080/09735070.2011.11886390.
- 70 Lepcha T T, Pradhan P, Gaira K S, Badola H K, Shahid M *et al.*, Ethnomedicinal use of plants by Bhutia Tribe in Sikkim Himalaya, Proceedings 1st Himalayan Res Consort, 2019, p. 71-78, doi:10.1017/CBO9781107415324.004.
- 71 Gibji N, Ringu N & Dai N O, Ethnomedicinal knowledge among the Adi Tribes of Lower Dibang Valley District of Arunachal Pradesh, India, *Int Res J Pharm*, 3 (6) (2012) 223-29.
- 72 Panmei R, Gajurel P R & Singh B, Ethnobotany of medicinal plants used by the Zeliangrong Ethnic Group of Manipur, Northeast India, *J Ethnopharmacol*, 235 (2019) 164-82, doi:10.1016/j.jep.2019.02.009.
- 73 Das S, Sheeja T E & Mandal A B, Ethnomedicinal uses of certain plants from Bay Islands, *Indian J Tradit Know*, 05 (2) (2006) 207-11.
- 74 Verma C, Bhatia S & Srivastava S, Traditional medicine of the Nicobarese, *Indian J Tradit Know*, 9 (4) (2010) 779-85.
- 75 Sharief M U, Plants folk medicine of Negrito Tribes of Bay Islands, *Indian J Tradit Know*, 06 (3) (2007) 468-76.
- 76 Das A K, Dutta B K & Sharma G D, Medicinal plants used by different tribes of Cachar District, Assam, *Indian J Tradit Know*, 7 (3) (2008) 446-54.
- 77 Chander M P, Kartick C & Vijayachari P, Ethnomedicinal knowledge among Karens of Andaman & Nicobar Islands, India, *J Ethnopharmacol*, 162 Elsevier (2015) 127-33, doi:10.1016/j.jep.2014.12.033.