

Ethno-Medicinal Plants Used by Bantar of Bhaudaha, Morang, Nepal

E. Acharya (Siwakoti) and B. Pokhrel

Department of Botany, Post Graduate Campus, T.U., Biratnagar, Nepal

Received: 22.09.2006; Accepted: 15.11.2006

Abstract

Bantar, one of the dominant ethnic groups of Morang district is ethno botanically very rich. 98 species of plants belonging to 89 genera and 45 families used by Bantar as traditional medicines for human and domestic animals have been documented here. Ethno medication in most instances involves mantras alongside herbal application. Most diseases are treated by the use of more than one plant species while a single plant species is found to be used in curing more than one disease.

Key words: Bantar, Ethno-medicinal plants, Morang

Introduction

Nepal is multicultural, multilingual and multireligious country. According to the census 2001, the country contains 100 caste/ethnic groups and 92 languages. Among them 59 ethnic groups are identified as indigenous nationalities. The biological resources are being used by the ethnic groups for the livelihood since the time immemorial. The ethnic groups are rich in indigenous knowledge (IK) and it is deeply rooted in their tradition and culture (Shrestha, 1997). Indigenous people residing in different geographical belts depend on local plant and plant products to meet their daily requirements for food, fodder, medicines etc. Such an ethnobotanical knowledge on various plants acquired by human beings by their self experience, trial and accidents is now in the state of erosion and is attenuating day by day because of growing modernization, associated with urbanization.

Bantar is one of the widespread ethnic groups in eastern Terai (Dahal, 1978). It

belongs to 'Shudra Varna' of the caste system (Dahal, 1997) and is called as 'Sardar' in written language (Acharya, 1991). As the census 2001, their total population was 35,839 and distributed in 23 districts. Their population is concentrated in Morang, Sunsari, Saptari and Mahottari district. In Morang, Bhaudaha Village Development is highly populated.

In India, they inhabit Samastipur, Darbhanga, Madhubani, Saharsa, Madhepura and Purnea districts in Bihar. It is believed that the word Bantar is derived from the word bans, meaning bamboo (Singh, 2003).

Materials and methods

The present study was carried out from October 1999 to October 2000. Participatory Rural Appraisal (PRA) and Interview techniques were employed to get ethno medicinal information from old aged Bantar people, local professional health healers (Dhamis) and old aged persons. The collected specimens were critically studied

and identified with the help of available literature (Haines, 1961; Hooker, 1872-1897; Hara *et al.*, 1978, 1982; Hara and Williams, 1979; and Siwakoti, 1995). The specimens were further tallied with the voucher specimens deposited at National Herbarium and Plant Laboratories, Godavari (KATH). 98 species of plants belonging to 45 families and 89 genera were arranged alphabetically along with their Bantar names, Nepali names, parts used and uses (Table 1 and 2).

Results and discussion

The study reveals that Bantar still have conserved their ancestral knowledge about the medicinal practices of the plants. Among 98 species reported to be ethno medicinally important, 86 species belonging to 81 genera of 41 families are used for human diseases and 20 species belonging to 20 genera of 15 families are used for domestic animals, and 8 species being common for both.

There are a number of plants used by Bantar for the treatment of similar types of diseases. Root of *Alternanthera sessilis*, *Sphaeranthus indicus* (as amulet) and *Cyperus rotundus*; sap of *Phoenix sylvestris*; and leaf of *Anisomeles indica*, *Oxalis corniculata*, and *Scoparia dulcis* are used in stomachache. However, the mode of use of leaf of *Oxalis corniculata* is ritual. Leaves and flowers of *Cannabis sativa*, flowers of *Tamarindus indica* and *Punica granatum*, fruits of *Momordica charantia*, whole plants of *Euphorbia hirta* and root of *Physalis peruviana* are used to cure piles. Similarly, they use a number of plants for the treatment of different types of skin diseases. Whole plants of *Youngia japonica*, leaves of *Urena lobata*, *Stephania elegans* and *Triumfetta rhomboidea* are used in boils.

Roots of *Hygrophila auriculata*; and leaf of *Xanthium strumarium* and *Crotalaria pallida* are used in eczema. Leaves and seeds of *Cassia occidentalis*. *C. sophera*, and *C. tora* are used in ringworm and itches. Roots or fruits of *Breca arvensis*; leaves of *Eclipta prostrata*, and *Azadirachta indica*; stems of *Dalbergia sisoo*; roots of *Mimosa pudica*, *Solanum aculeatissimum*, and *Sanguis*; and fruits of *Argemone mexicana* are used in scabies.

On the other hand, uses of barks of *Ficus religiosa* and fruits of *Nyctanthes arbor-tristis* in foot and mouth disease; leaves of *Annona squamosa*, *Ocimum basilicum* and *Nicotiana tabacum* to kill germs and worms; and barks of *Mangifera indica* and *Acacia nilotica* and the leaves of *Leucas indica* and *Psidium guajava* in urinary problems (blood in urine and stopped urination) of cattle are very common.

Ethno medication in most instances involves rituals involving mantras alongside herbal application. Amulet of roots of *Sphaeranthus indicus* are worn in stomachache, that of *Solanum nigrum* in intermittent fever and easy child delivery and that of stem of *Clerodendrum indicum* in case of fever. A flower garland of *Achyranthes aspera* is worn for the ritual treatment of jaundice.

Extensive research on the medicinal properties of some plants by various ethnic groups has been performed (Coburn, 1984; Manandhar, (1986, 1989); Acharya, 1996; Siwakoti and Siwakoti, (1996, 1998); Karki, 1998; Siwakoti, 1999; Choudhary, 2000; Rai, 2004). The study revealed that few plants like *Centella asiatica*, *Acorus calamus* are found to have similar use in urinary problem and cough respectively among the Bantar, Mooshar and western Gurungs while most of

Table 1. Plants used by Bantar people in traditional medicinal practice for humans.

S. N.	Family	Botanical Name	Bantar Name	Nepali Name	Part Used	Uses
1.	Acanthaceae	<i>Adhatoda zeylanica</i>	Baksar	Asuro	Leaf	Catarrh and cough
2.	"	<i>Hygrophila auriculata</i>	Gokhla kant	–	Root	Eczema
3.	Amaranthaceae	<i>Achyranthes aspera</i>	Ulta chirchiri	Apamarga	Flower(garland)	Jaundice (ritual)
4.	"	<i>Alternanthera sessilis</i>	Sarhanchi sag	Bhiringi jhar	Root	Stomachache
5.	"	<i>Amaranthus spinosus</i>	Katra	Banlude	Root	Abortion
6.	Amaryllidaceae	<i>Crinum asiaticum</i>	Nakair		Flower	Nasal bleeding, diabetes
7.	Apiaceae	<i>Centella asiatica</i>	Bhatpurain	Ghodtapre	Leaf	Acidity, urinary problem (stopped urination)
8.	Apocynaceae	<i>Alstonia scholaris</i>	Chhatmain	Chhatiwan	Bark	Appetizer, lactation
9.	"	<i>Rauwolfia serpentina</i>	Chandmaruwa	Sarpagandha	Leaf	Mental disorder
10.	"	<i>Thevetia peruviana</i>	Champa gachhi	Karbir	Leaf	Wounds
11.	Araceae	<i>Acorus calamus</i>	Achheni	Bojho	Rhizome	Cough
12.	"	<i>Pistia stratiotes</i>	Jalkumbhi	Jalkumbhi	Whole plant	Swelling
13.	Arecaceae	<i>Phoenix sylvestris</i>	Khajur		Sap	Diarrhoea, stomachache
14.	Asclepiadaceae	<i>Calotropis gigantea</i>	Akwain	Aank	Flower, milky juice	Asthma, malaria
15.	Asteraceae	<i>Ageratum conyzoides</i>	Genhwa	Ilame jhar	Leaf	Cuts
16.	"	<i>Artemisia dubia</i>	Titari	Titepati	Flower	Appetizer, lactation, pregnancy disease
17.	"	<i>Blumea lacera</i>	Genhwa	Gandhe jhar	Leaf	Cuts
18.	"	<i>Breea arvenis</i>	Suruj kant		Root, fruit	Scabies
19.	"	<i>Eclipta prostrata</i>	Bhangria	Bhringiraj	Leaf	Cuts, scabies
20.	"	<i>Sphaeranthus indicus</i>	Murlikhar	Gorakhmundi	Root (amulet)	Stomachache, fever

E. Acharya (Siwakoti) and B. Pokhrel/ Our Nature (2006)4:96-103

21.	"	<i>Spilanthes calva</i>	Bon bhangadi	Lato ghans	Leaf	Cuts, mud infection
22.	"	<i>Tridax procumbens</i>	Badka bhangria		Leaf	Cuts, wounds
23.	"	<i>Xanthium strumarium</i>	Khagada	Bhende kuro	Leaf	Eczema
24.	"	<i>Youngia japonica</i>	Chirota		Whole plant	Constipation, blood purification, boils, appetizer
25.	Basellaceae	<i>Basella alba</i>	Paro sag	Poi sag	Apical shoot	Insomnia
26.	Bombacaceae	<i>Bombax ceiba</i>	Simar	Simal	Root, bark	Dysentery, fracture
27.	Boraginaceae	<i>Heliotropium indicum</i>	Hathiyasud	Hattisude	Leaf	Cuts, tongue infection
28.	Brassicaceae	<i>Rorippa benghalensis</i>	Hurhur		Leaf	Malaria, headache
29.	Cannabaceae	<i>Cannabis sativa</i>	Bhang	Bhang	Flower, leaf	Piles
30.	Caricaceae	<i>Carica papaya</i>	Aderwala	Mewa	Fruit	Liver swelling
31.	Chenepodiaceae	<i>Chenepodium album</i>	Bathuwa	Bethu	Young shoot	Constipation, nutrition
32.	Combretaceae	<i>Terminalia catappa</i>	Kabuli badam	Kathe badam	Seed	Anaemia
33.	Cucurbitaceae	<i>Coccinia grandis</i>	Tilkaur	Golkakri	Leaf	Jaundice
34.	"	<i>Momordica charantia</i>	Karela	Karela	Fruit	Piles
35.	Cuscutaceae	<i>Cuscuta reflexa</i>	Amarlati	Akashbeli	Whole plant	Tonsillitis, swelling
36.	Cyperaceae	<i>Cyperus rotundus</i>	Mothe ghans	Mothe	Tuber	Stomachache
37.	"	<i>Fimbristylis aestivalis</i>	Motha		Tuber	Appetizer
38.	Euphorbiaceae	<i>Croton bonplandianus</i>	Mirchaiya	Khursane jhar	Leaf, root	Cuts, ulcer
39.	"	<i>Euphorbia hirta</i>	Dudhiya	Dude jhar	Whole plant	Piles
40.	"	<i>Jatropha curcas</i>	Baghandi	Saruwa	Twig	Toothache
41.	"	<i>Phyllanthus emblica</i>	Rikhiya	Amala	Flower	Blood purification, mental disorder
42.	"	<i>Ricinus communis</i>	Arri	Andi	Seed	Heel cracks
43.	Fabaceae	<i>Abrus precatorius</i>	Karjani	Lalgedi	Seed	Female sterility
44.	"	<i>Acacia nilotica</i>	Babur	Babul	Young	Veneral

E. Acharya (Siwakoti) and B. Pokhrel/ Our Nature (2006)4:96-103

45.	"	<i>Caesalpinia bonduc</i>	Kathgarer	Kaande jhang	Young leaf	Fever, intestinal worms
46.	"	<i>Cassia occidentalis</i>	Chakor	Panwar	Leaf seed	Ringworm, itch
47.	"	<i>C. sophora</i>	Chakor	Thulo tapre	Leaf seed	Ringworm, itch
48.	"	<i>C. tora</i>	Chakor	Tapre	Leaf seed	Ringworm, itch
49.	"	<i>Crotalaria pallida</i>	Jhunjhuna	Runche	Leaf	Eczema
50.	"	<i>Dalbergia sissoo</i>	Sisau	Sisau	Leaf, stem	Diarrhoea, scabies
51.	"	<i>Mimosa pudica</i>	Lajjauni	Lajjawati jhar	Root	Scabies
52.	"	<i>Tamarindus indica</i>	Tetair	Titri	Flower	Piles
53.	"	<i>Vicia tetrasperma</i>	Misiya		Seed	Mental disorder
54.	Lamiaceae	<i>Anisomeles indica</i>	Bar	Rato charpate	Leaf	Stomachache
55.	"	<i>Leucas indica</i>	Dulpha	Dulphe jhar	Young shoot	Bodyache
56.	"	<i>Ocimum tenuiflorum</i>	Tulsi	Tulsi	Leaf	Catarrh, cough
57.	Liliaceae	<i>Aloe vera</i>	Ghikumari	Ghiukumari	Leaf	Catarrh, cough, overheat problem
58.	Lythraceae	<i>Lawsonia inermis</i>	Mehendi	Mehendi	Leaf	Heel crack, mud infection
59.	"	<i>Rotala rotundifolia</i>	Adakapali		Leaf	Hemicrania
60.	Malvaceae	<i>Urena lobata</i>	Badki bariyar	Nalu kuro	Leaf	Boils
61.	Meliaceae	<i>Azadirachta indica</i>	Neem	Neem	Leaf	Intestinal worms, scabies
62.	Menispermaceae	<i>Stephania elegans</i>	Ghaupat	Batule pat	Leaf	Boils, blood dysentery
63.	"	<i>Tinospora sinensis</i>	Gurujlati	Gurjo	Stem	Veneral disease (Dhatu)
64.	Moraceae	<i>Ficus benghalensis</i>	Bar	Bar	Milky juice	Cataract, venereal disease, heel cracks
65.	Moringaceae	<i>Moringa oleifera</i>	Soijan	Sajiwan	Bark	Rheumatism
66.	Myrtaceae	<i>Psidium</i>	Latam	Amba	Tender	Mental

E. Acharya (Siwakoti) and B. Pokhrel/ Our Nature (2006)4:96-103

		<i>guajava</i>			fruit, tender leaf	disorder, urinary problem (stopped urination)
67.	"	<i>Syzygium cumini</i>	Jamun	Jamun	Fruit	Indigestion
68.	Oxalidaceae	<i>Oxalis corniculata</i>	Amrota	Chari amilo	Leaf	Stomachache (Ritual)
69.	Papavaraceae	<i>Argemone mexicana</i>	Kataar	Thakal	Latex, fruit	Conjunctivitis, scabies
70.	Poaceae	<i>Cynodon dactylon</i>	Doob	Doobo	Root	Cuts, wounds, burns
71.	"	<i>Imperata cylindrica</i>	Davi	Siru	Root (amulet)	Cholera (in child)
72.	"	<i>Saccharum spontaneum</i>	Kasal	Kans	Flower	Cuts
73.	Primulaceae	<i>Primula umbellata</i>	Thokuwa mamarkha		Leaf, flower	Diarrhoea, fever, insomina (in child)
74.	Punicaceae	<i>Punica granatum</i>	Anar	Anar	Seed, flower	Tonic, piles
75.	Rubiaceae	<i>Hedyotis corymbosa</i>	Dudhiya	Piringo jhar	Whole plant	Acidity
76.	Scrophulariaceae	<i>Scoparia dulcis</i>	Patalmishri	Mitha jhar	Leaf	Stomachache, venereal disease
77.	Solanaceae	<i>Cestrum diurnum</i>	Mamarkha		Leaf	Weeping illness (in child)
78.	"	<i>Nicotiana tabacum</i>	Surti	Surti	Leaf	Ear problem (flow of puss)
79.	"	<i>Physalis peruviana</i>	Ram bhutka	Jangali mewa	Root	Piles
80.	"	<i>Solanum aculeatissimum</i>	Katbaigani	Kalchudo	Root	Scabies
81.	"	<i>S. anguivi</i>	Badka Katbaigani	Bihi	Root	Scabies
82.	"	<i>S. nigrum</i>	Bhutka	Jangali bihi	Root (amulet)	Easy child delivery, intermittent fever
83.	Tiliaceae	<i>Triumfetta rhomboidea</i>	Bariyar	Bankuro	Leaf	Boils
84.	Verbenaceae	<i>Clerodendrum indicum</i>	Sarphoka		Stem (wreath)	Fever
85.	"	<i>C. viscosum</i>	Bhainth	Bhate	Tender shoot	Intestinal worms
86.	"	<i>Vitex negundo</i>	Sinwair	Simali	Leaf	Constipation

Table 2. Plants used by Bantar people in traditional medicinal practice for domestic animals.

S.N.	Family	Botanical Name	Bantar Name	Nepali Name	Part Used	Uses
1.	Amaranthaceae	<i>Amaranthus viridis</i>	Thadiya genari	Lude	Aerial part	Lactation
2.	Anacardiaceae	<i>Mangifera indica</i>	Aam	Aanp	Bark	Urinary problem
3.	Annonaceae	<i>Annona squamosa</i>	Sarifa	Sarifa	Leaf	Germs, worms
4.	Araceae	<i>Acorus calamus</i>	Achheni	Bojho	Rhizome	Indigestion
5.	Asclepiadaceae	<i>Cynanchum callialata</i>	Kauwaloli		Seed	Nipple infection (bleeding while drawing out milk)
6.	Cannabaceae	<i>Cannbis sativa</i>	Bhang	Bhang	Leaf, flower	Diarrhoea
7.	Cucurbitaceae	<i>Mukia maderaspatana</i>	Ladbhadi	Sunkeshre laharo	Leaf	Constipation, tiredness
8.	Fabaceae	<i>Acacia nilotica</i>	Babur	Babul	Bark	Urinary problem
9.	"	<i>Vicia angustifolia</i>	Nakta	Narkat	Whole plant	Lactation
10.	Lamiaceae	<i>Anisomeles indica</i>	Bar	Rato charpate	Leaf	Constipation, tiredness
11.	"	<i>Leonurus japonicus</i>	Chhotka bakain		Leaf	Constipation, tiredness
12.	"	<i>Leucas indica</i>	Dulpha	Dulphe jhar	Leaf	Urinary problem (stopped urination)
13.	"	<i>Ocimum basilicum</i>	Palhas	Babari	Leaf	Germs, worms
14.	Menispermaceae	<i>Tinospora sinensis</i>	Gurujlati	Gurjo	Whole plant	Tiredness
15.	Moraceae	<i>Ficus religiosa</i>	Pipar	Pipal	Bark	Foot & mouth disease (khoret rog)
16.	Myrtaceae	<i>Psidium guajava</i>	Latam	Amba	Tender leaf	Urinary problem (stopped urination)
17.	Oleaceae	<i>Nyctanthes arbor-tristis</i>	Singadhar	Parijat	Fruit	Foot & mouth disease (wound on mouth)
18.	Piperaceae	<i>Piper longum</i>	Pipair	Pipla	Leaf	Constipation, tiredness
19.	Solanaceae	<i>Datura metal</i>	Dhuthur	Dhaturo	Fruit	Diarrhoea
20.	"	<i>Nicotiana tabacum</i>	Surti	Surti	Leaf	Germs, worms

the plants used by Bantar are found to be used in different kinds of diseases by other tribes.

Most Bantar people of the study area are economically poor which failed their access to the facilities of modern medicines and doctors. Consequently they consult the Dhamis, show more faith in traditional health care system and satisfy with the cultivated and wild plants found near their settlements.

Acknowledgements

The author is thankful to Dr. Mohan Siwakoti, Dr. Sashinath Jha and Mr. Bhabindra Niroula for their help in plant identification. Thanks are due to Bantar people of Bhaudaha VDC for their help and cooperation in the course of study.

References

- Acharya, P. 1991. *Sanrakshyan Garinu Parne Jaati Bantar*. HMG Nepal, Ministry of Communication, Publication and Printing Department.
- Acharya, S.K. 1996. Folk uses of some medicinal plants of Pawannagar, Dang district. *J. Nat. Hist. Mus. (Nepal)* **15(1-4)**: 25-36.
- Chaudhary, R. 2000. Ethnobotanical studies of Tharu community of Bhadgaun Sinuwari VDC of Sunsari district. Department of Botany, P.G. Campus, T.U., Biratnagar. (M.Sc. Dissertation)
- Coburn, B. 1984. Some native medicinal plants of western Gurungs. *Kailash* **11(1-2)**: 55-87.
- Dahal, D.R. 1978. *Indian ethnic group of Nepal: A study of immigration patterns socio-economic behaviour, eastern terai sector*, part second, Nepal Asian Research Centre (NARC), T.U., Kirtipur, Kathmandu.
- Dahal, M.R. 1997. Jhorahat gaun vikas samiti ka Bantar samudaya ko parivarik avum samajik parampara haru. A report submitted to T.U. Research Centre, Kirtipur, Kathmandu.
- Haines, H.H. 1961 (Rev.ed.). *The botany of Bihar and Orissa*, Vols. 1-3, Bishen Singh and Mahendra Pal Singh, Dehradun.
- Hara, H., W.T. Stearn and L.H.J. Williams 1978. *An enumeration of the flowering plants of Nepal*, Vol. 1. British Museum (Natural History), London.
- Hara, H. and L.H.J. Williams 1979. *An enumeration of the flowering plants of Nepal*, Vol. 2. British Museum (Natural History), London.
- Hara, H., A.O. Chater and L.H.J. Williams 1982. *An enumeration of the flowering plants of Nepal*, Vol. 3. British Museum (Natural History), London.
- Hooker, J.D. 1872 -1897. *The flora of British India*, Vols. 1-7. London.
- Karki, B. 1998. Ethnobotanical studies of Rajbansi of Bhatigachh VDC, Morang district. Department of Botany, P.G. Campus, T.U., Biratnagar. (M.Sc. Dissertation)
- Manandhar, N.P. 1986. A contribution to the ethnobotany of Mooshar tribes of Dhanusha district, Nepal. *J. Nat. Hist. Mus.* **10(1-4)**: 53-64.
- Manandhar, N.P. 1989. Traditional phytotherapy of Danuwar tribes of Kamlakhonj in Sindhuli district, Nepal. *Fitoterapia* **61(4)**: 325-329.
- Manandhar, N.P. 1997. Ethnobotany in Nepal. In: *Ethnobotany for conservation and community developmen.* (Eds. Shrestha, K.K., P.K. Jha, P. Shengji, A. Rastogi, S. Rajbhandary, M. Joshi), Proceedings of the National Training Workshop in Nepal, January 6-13, 1997. pp. 20-27.
- Rai, S.K. 2004. Medicinal plants used by Meche people of Jhapa district, eastern Nepal. *Our Nature* **2(2)**: 27-32.
- Shrestha, K.K. 1997. Ethnobotanical inventory and plant taxonomy: Basic approaches for ethnobotanical research. In: *Ethnobotany for conservation and community developmen.* (Eds. Shrestha, K.K., P.K. Jha, P. Shengji, A. Rastogi, S. Rajbhandary, M. Joshi), Proceedings of the National Training Workshop in Nepal, January 6-13, 1997. pp. 58-65.
- Singh, K.S. 2003. *People of India, National Series Volume III*. Oxford University Press.
- Siwakoti, K.P. 1999. Documentation of indigenous knowledge of Dhimal tribe of Jhapa district on plant resources. Department of Botany, P.G. Campus, T.U., Biratnagar. (M.Sc. Dissertation)
- Siwakoti, M. and S. Siwakoti 1996. Ethnobotanical studies of Satars of Jhapa district, Nepal : A case study of Haldibari VDC. A report submitted to University Grants Commission, Kathmandu, Nepal.
- Siwakoti, M. and S. Siwakoti 1998. Ethnobotanical uses of plants among the Limbu of Morang district. *Ecoprint*, **5(1)**: 79-84.
- Siwakoti, M. and S. Varma 1996. Medicinal plants of the terai of eastern Nepal. *J. Econ. Taxon. Bot.* **12**: 423-438.
- Siwakoti, M. 1995. Flora of plain region of eastern Nepal (Biratnagar-Dharan). Department of Botany, T.M. Bhagalpur University, India. (Ph.D. Thesis)