

An ethno-medicobotanical investigation among Rava tribe of Jalpaiguri district

Debadin Bose*

Department of Botany, Kabi Nazrul College, Murarai, Birbhum 731219, India

Abstract

This work deals with the ethnomedicobotanical use of various plant species by Rava community residing in Jalpaiguri district. This kind of approach is rather sporadic not only in this region but also to other parts of the India. Here ethnomedicinal uses of 41 selected plant species, which are generally used by the Rava people, have been described. This study reveals some interesting information about the mode of the use of these plants which may form the basis of primary health care system of Rava community. This knowledge would be an excellent addition to the current knowledge of folk medicine and may opens a new horizon in the field of ethnobotany and ethnomedicine.

Keywords: Rava, ethnomedicobotany, medicinal plants, Jalpaiguri

Ethnobotany is a subject which deals with the relationship between primitive human society and their plant environment; more simply it is an anthropological approach to botany (Tewari and Yadav, 2003). Such ethnobotanical studies are inconsistent in India and are restricted to certain selected regions in the state of Madhya Pradesh, Chattisgarh, Bihar, Jharkhand, Orissa, Andhra Pradesh, Arunachal Pradesh and Uttaranchal which have opened up fantastic new vistas especially in the areas of folk medicine (Das *et al.*, 1983).

Jalpaiguri district of West Bengal is known for their rich floristic composition and traditional culture. This part of Bengal is inhabited by several tribes which include Koch, Meich, Rava, Munda, Santhal, Paik, Toto, Garo, Oraon, etc and many of them are still forest dwellers. The indigenous culture is maintained by them in more or less in its native form (Chowdhary *et al.*, 1982). Rava is one of the important tribe of this area. They are mongoloids and original native of 'terai' (Chowdhary *et al.*, 1982). This community is socially and economically backward also.

The Rava people gathered a large amount of valuable information from their age old association with nature. They are still among the traditional communities of West Bengal that have retained most of their knowledge about the use of a large part of the plants in their environment for a wide variety of purpose. They depend largely on local plants not only for medicine but also for food and fodder. However this information remains well guarded by them from outsiders (Das *et al.*, 1983). The aim of the present study is to gather the age old valuable information about the use of medicinal plants by the Rava community in a scientific manner for the larger sphere of human welfare.

Materials and Methods

This research adopted a simple and basic work plan for smooth conduction of the project. Local forest department officials were approached for a checklist of forest villages and its nature of population. Besides forest villages the tribal population is distributed through out the district, so local SC & ST Departments of Government of West Bengal were also visited for detail location and nature of tribal population of the district. Lastly an intensive search was done through internet and requisite information was downloaded. On the basis of these collected data team made a details plan for field trip for one year. In the field survey detail information on types, traditional method of preparation, mode of consumption, shelf life and ethnic value of the medicinal plants were collected from elderly persons and medicine man (Ojhas) of tribal population and forest villages. This information was collected through a well structured pretested proforma and by personal interview method. The plant specimens were collected as directed by these resource persons in flowering and fruiting condition. However, we unable to collect some of the specimen in their flowering or fruiting condition. So flowering or fruiting time was noted and these places were revisited for collection of those plants in flowering condition. The digital photographs were also taken.

Some of the collected specimens were processed as voucher specimen for herbarium preservation in accordance with the standard herbarium techniques (Jain and Rao, 1977), and others were used for taxonomy related work for their identification in consultation with standard literature available (Prain, 1903; GuhaBakshi, 1984). The correct botanical name, local name, family, synonym(s) and medicinal uses were recorded on the basis of available literature (Panigrahi and Murti; 1989; Chatterjee and Pakrashi, 1991 - 1997; Chopra *et al.*, 1956, Pakrashi and Mukhopadhyay, 2004; Hotwani and

*E-mail: debadin@hotmail.com

Mukherjee, 2005)

Result and Discussion

Specimen No- 1. (C.No. J-145)

Local Rava name: Parhola phang.

Scientific name: *Leucas plukenetii* (Roth) Spreng. (Labiatae)

Medicinal properties:- Leaves and flowers are acrid, anthelmintic, anti-inflammatory, antipyretic, antibacterial, used to treat colic, chronic skin eruptions, cough fever and ulcers. Leaf juice applied externally in chronic amoebiasis, painful swelling, and juice is highly recommendable as an eye drop in encephalopathy due to worm infestation in children, used as a nasal drop in catarrh.

Specimen No - 2. (C.No. 7)

Local Rava name: Harer phang

Scientific name: *Spilanthes calva* DC. (Asteraceae).

Medicinal properties: Flowers are chewed to get relief from throat infections and paralysis of tongue. Seeds are chewed to produce salivation when mouth is dry. Young leaves are eaten after cooking to increase lactation. Used in cough and cold as well as glossitis.

Specimen no - 3. (C.No.JL - 1)

Local Rava name: Pachun Phang.

Scientific name: *Artocarpus heterophyllus* Lam. (Moraceae).

Medicinal properties:- Leaf used in fever, boil, wound, skin diseases. Ripe fruit is sweet, cooling, laxative, tonic, beneficial and used in ulcers. Seed is sweet and constipating.

Specimen no- 4. (C.No. J-34)

Local Rava name: Sampulchak phang

Scientific name: *Centella asiatica* (L.) Urban (Apiaceae).

Medicinal properties:- Leaf is used to treat diarrhea, dysentery, leprosy, and skin diseases. Leaf extract improve blood, nerve, memory.

Specimen no- 5. (C.No. JL2)

Local Rava name: Adharbhushi.

Scientific name: *Blumea lacera* (Burm.f.) DC. (Asteraceae).

Medicinal properties: The plant is used to treat stomach disorder of cattle. The whole plant is used to treat muscular pain.

Specimen no- 6. (C.No. J-149)

Local Rava name: Sijusij Phang

Scientific name: *Euphorbia hirta* L. (Euphorbiaceae).

Medicinal properties: Fresh milky latex externally applied on the affected portion of the body for several days to treat ring worm and infection in nail corners. The latex is also used in eye disorder.

Specimen no- 7 (C.No. Siltong 10)

Local Rava name: Nimplosunti Phang or Toneteng phang

Scientific name: *Heliotropium indicum* L. (Boraginaceae)

Medicinal properties: Root sap is used in eye treatment.

Specimen no- 8. (C.No. Gajoldoba-7)

Local Rava name: Jangalpharshing phung;

Scientific name: *Sida acuta* Burm.f (Malvaceae)

Medicinal properties: Plant prevents blood urea, boils and nephritis.

Specimen no- 9 (C.No. J-35)

Local Rava name: Taptepa

Scientific name: *Physalis minima* L. (Solanaceae.)

Medicinal properties: Fresh ripe fruits eaten for few days to treat urinary trouble.

Specimen no- 10 (C.No. J-146)

Local Rava name: Tetram phang.

Scientific name: *Eupatorium odoratum* L. (Asteraceae).

Medicinal properties: Whole plant is used as a fish poison. Fresh leaf juice externally applied at the site of injury to prevent bleeding.

Specimen no- 11. (C.No. Mendabari-6)

Local Rava name: Chilonchak Phang

Scientific name: *Morinda citrifolia* L. (Rubiaceae).

Medicinal properties: Leaf sap is used to treat wounds in leg during rainy season.

Specimen no- 12 (C.No. N-4)

Local Rava name: Muisinto

Scientific name: *Lygodium pinnatifidum* (L.) Sw (Schizaeaceae).

Medicinal properties: Plant is used in urine problem and in redness in urine.

Specimen no- 13 (C.No. J-74)

Local Rava name: Maitomol phang

Scientific name: *Rauvolfia serpentina* (L.) ex Kurz (Apocyanaceae)

Medicinal properties: Root is used to treat fever.

Specimen no- 14. (C.No. J-150)

Local Rava name: Singit phang

Scientific name: *Ziziphus mauritiana* Lamk. (Rhamnaceae).

Medicinal properties: The root pest is applied to prevent bleeding in cattle.

Specimen no- 15 (C.No. J-14)

Local Rava name: Bichong Phang

Scientific name: *Alstonia scholaris* (L.) R.Br.

(Apocynaceae)

Medicinal properties: The latex also prevents acidity and child constipation. The bark increases the lactation in cattle.

Specimen no- 16 (C.No. 5)

Local Rava name: Shammonamy phang

Scientific name: *Ageratum conyzoides* L.(Asteraceae)

Medicinal properties: Whole plant juice is used to prevent bleeding from wounds.

Specimen no- 17 (C.No. Gajoldoba-5)

Local Rava name: Gantepa

Scientific name: *Jatropha curcas* L. (Euphorbiaceae.)

Medicinal properties: Latex is used to treat wounds and skin diseases.. Seeds used against skin diseases. Seeds also used as digestive. Twigs are used in tooth and gum problem.

Specimen no- 18 (C.No. Magurmari - 13)

Local Rava name: Jamblao phang

Scientific name: *Oroxylum indicum* Vent. (Bignoniaceae).

Medicinal properties: Fruit or seed or bark is soaked in water and make pest which is used in stomach pain, chest pain and body pain. The flower is appetizer and used against jaundice.

Specimen no- 19 (C.No. Mathura TG -5)

Local Rava name: Ersa phang

Scientific name: *Cassia alata* L. (Leguminosae).

Medicinal properties: The leaf pest is applied on eczema and other skin disease.

Specimen no- 20 (C.No. JL - 27)

Local Rava name: Parbotatai penek

Scientific name: *Solanum nigrum* L.(Solanaceae).

Medicinal properties: Root is bitter, acrid, antiseptic, anti inflammatory, wounds, and used against jaundice.

Specimen no- 21 (C.No. N – 1)

Local Rava name: Rakat, Chakadal

Scientific name: *Ardisia solanaceae* Roxb. (Myrsinaceae).

Medicinal properties: Stem bark pest is applied on swelling. Root is febrifuge, used in diarrhea and rheumatism

Specimen no- 22 (C.No. J- 32.)

Local Rava name: Tere gunch.

Scientific name: *Equisetum debile* Roxb. (Equisetaceae).

Medicinal properties: The plant is used in bone fracture. .

Specimen no- 23 (C.No. SC – 13.)

Local Rava name: Belkel phang.

Scientific name: *Alangium chinensis* (Lourcoo) Herms.(Alangiaceae).

Medicinal properties: The leaf juice is applied as ointment in pain and inflammation. .

Specimen no- 24 (C.No. J- 148)

Local Rava name: Barokuchichakphang.

Scientific name: *Angiopteris evecta* Hoffm. (Marattaceae).

Medicinal properties: The sap of the rhizome mixed with 'Talmishi' is eaten to cure leucorrhoea. .

Specimen no- 25 (C.No. Nepania Basti 1)

Local Rava name: Panchu phang

Scientific name: *Bombax ceiba* L. (Bombacaceae).

Medicinal properties: The root is used in bone fracture and blood dysentery. The latex is used in amoebiasis.

Specimen no- 26 (C.No. J-144)

Local Rava name: Chhito, Sunsumari.

Scientific name: *Cryptolepis buchanani* Roem & Schult. (Asclepiadaceae).

Medicinal properties: An ingredient of haria, improve general health condition. .

Specimen no- 27 (C.No. K - 1)

Local Rava name: Jingsing Phang.

Scientific name: *Clerodendron fragrans* Vent. (Verbenaceae).

Medicinal properties: Root bark prevents the stomachache. .

Specimen no- 28 (C.No. R – 18)

Local Rava name: Astachatur.

Scientific name: *Crimum amoenum* Roxb. Ex Ker. Gawler. (Amarilydaceae).

Medicinal properties: Root is used to treat jaundice and diarrhea.

Specimen no- 29 (C.No. J- 152)

Local Rava name: Panbolang phang.

Scientific name: *Coffea bengalensis*. Roxb. (Rubiaceae)

Medicinal properties: Flower is used in child birth and conjunctivaites. .

Specimen no- 30 (C.No. J – 69)

Local Rava name: Kalodungai.

Scientific name: *Curcuma zedoaria*. Roscoe. (Zingiberaceae).

Medicinal properties: The rhizome is used in bone fracture. .

Specimen no- 31 (C.No. R – 20)

Local Rava name: Koss phang

Scientific name: *Ehretia lavis* Roxb. (Boraginaceae)

Medicinal properties: The bark pest is applied in pain

in leg.

Specimen no- 32 (C.No. J – 157)

Local Rava name: Kuchuli, Thupakphang.

Scientific name: *Ficus hispida* Linn. f. (Moraceae).

Medicinal properties: The fried fruit reduce the blood sugar level. .

Specimen no- 33 (C.No. Sc – 15.)

Local Rava name: Rosuni.

Scientific name: *Garuga pinnata* Colebr. (Burseraceae)

Medicinal properties: The bark is used in jaundice. .

Specimen no- 34 (C.No. N -3)

Local Rava name: Nagdhup

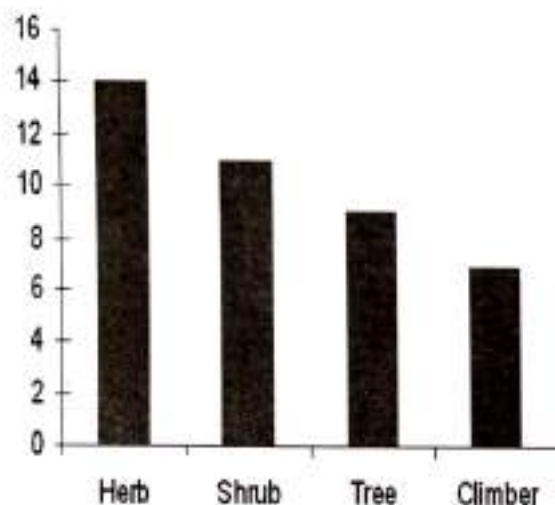


Fig 1: Habit form of medicinal plants used by Rava tribes

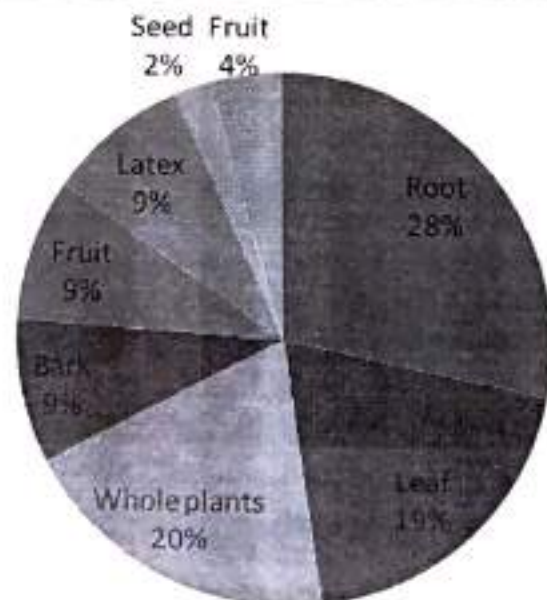


Fig 2: Percentage of plant parts used by Rava tribe as medicine

Scientific name: *Helminthostachya zeylanica* Hook. (Ophioglossaceae)

Medicinal properties: The rhizome pest is given to eat to jaundice patient. The patients also take a bath with rhizome extract. A piece of rhizome is tied in the hip. The rhizome is also used in edaema. .

Specimen no- 35 (C.No. K - 2.)

Local Rava name: Hatubhanga.

Scientific name: *Leea indica* (Burman) Merril. (Lecaceae).

Medicinal properties: Root is used in bone fracture. .

Specimen no- 36 (C.No. K – 9)

Local Rava name: Chiminphang.

Scientific name: *Melothria indica* Lour. (Cucurbitaceae).

Medicinal properties: Whole plant is used in the treatment of hydrocil (a disease of scrotum).

Specimen no- 37 (C.No. N – 9)

Local Rava name: Kubronten.

Scientific name: *Naravelia zeylanica* DC. (Ranunculaceae).

Medicinal properties: The root is crushed and inhaled in case of vertigo and weakness.

Specimen no- 38 (C.No. R – 18a)

Local Rava name: Dayoi

Scientific name: *Peperomia pellucida* (L.) Kunth. (Piperaceae)

Medicinal properties: The whole plant pest is used against boils.

Specimen no- 39 (C.No. N - 10)

Local Rava name: Kurdadra.

Scientific name: *Parabaena sagittata* Miers. (Menispermaceae)

Medicinal properties: Leaf is used to treat headache.

Specimen no- 40 (C.No. J-107)

Local Rava name: Pipul

Scientific name: *Piper peepuloides* Roxb.(Piperaceae).

Medicinal properties: Fruits used to treat cough and cold. .

Specimen no- 41 (C.No. SC – 9)

Local Rava name: Karmanphang.

Scientific name: *Trichosanthes cordata* Roxb. (Cucurbitaceae).

Medicinal properties: The whole plant sap mixed with mastered oil is used to treat rheumatism.

Ethnopharmacology and natural product drug discovery proves to be significant in the improvement of the living standard of rural communities. Many modern pharmaceuticals have their origin in ethnomedicine.

which relies upon a local pharmacopeias (Tambaoura *et al.* 2005). This knowledge is a holistic system approach that can serve as an innovative and powerful discovery engine for not only newer and safer but also an affordable medicine (Patwardhan, 2005). It is also interesting to note here that these natural plant products are more successful against multidrug resistant infectious disease (Cassandra *et al.*, 2008).

We also studied that which type of plants and which plant part Rava community uses more for medicinal purposes and found that herbs are the most preferred plant type for Ravas followed by shrubs and trees. Climbers are the list prioritized (fig 1). Similarly, roots are most frequently used for treating various diseases. However, whole plants and leaves are close second for the purpose.

Therefore it is clear that the information collected from the Rava tribe may play an important role not only in scientific research but also forms the basis of primary health care system of that community. This knowledge would be an excellent addition to the current knowledge of folk medicine and this community may open a new horizon in the field of ethnomedicobotany.

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