

MEDICO-BOTANICAL REPORT ON THE CHAKMA COMMUNITY OF BANGLADESH

SNIGDHA ROY, MOHAMMAD ZASHIM UDDIN¹, MD. ABUL HASSAN
AND M. MATIUR RAHMAN²

Department of Botany, University of Dhaka, Dhaka 1000, Bangladesh

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Bangladesh is the abode for 21 ethnic communities (Khaleque 1995). Among them, the Chakma tribe is the largest and the most dominant one. Total population of Chakma is about 253,000 (Tripura 1994) of which more than 90 percent live in Rangamati and Khagrachari districts. Even in the recent past, the Chakma people living in Bangladesh used to meet their daily needs mostly from natural forest products. For the primary health care, still most of them depend upon surrounding plants and plant products. The knowledge of such health care system is passed from generation to generation in verbal form by traditional medicine men, local headmen and elderly persons in their community. However, currently the indigenous healthcare knowledge of Chakma tribe is in great risk because of various threats. If the present trend of eroding situation prevails, the valuable knowledge possessed by the Chakma people on indigenous medicinal plants is going to be lost forever without being properly recorded and documented.

Studies on medico-botanical information of ethnic communities in Bangladesh are at initial stage. Some of the articles published in this field include Mia and Huq (1988), Alam (1992), Alam *et al.* (1996), Khisa, B. (1996), Khisa, S.K. (1998), Rahman and Uddin (1998), Rahman *et al.* (1998), Uddin (2001), Uddin *et al.* (2001), Khan *et al.* (2002), Yusuf *et al.* (2002), Chakma *et al.* (2003), Rahman (2003) and Uddin *et al.* (2004, 2006). None of these articles cover the entire medico-botanical documentation of the Chakma people of Bangladesh. In order to address this issue, the present article attempts to present some new medico-botanical information of Chakma people in the Chittagong Hill Tracts of Bangladesh.

Rangamati and Khagrachari districts (latitude 21°91'-23°75' N and longitude 91°75'-92°42' E) were selected for the study as the majority of the Chakma community live there. Six field trips were conducted in the study area in the years 2004 and 2006. Information on the medicinal plants was gathered by interviewing Chakma traditional medicine men, local headmen and elderly persons in the community. Local names of each medicinal plant with plant part(s) used and the names of diseases or symptoms treated were recorded. This information was confirmed by asking two or more persons of the same community. The collected botanical specimens were identified at the Department of Botany of the University of Dhaka and Bangladesh National Herbarium. The voucher specimens are stored at Bangladesh National Herbarium for future reference.

¹Corresponding author. E-mail: zashim07@yahoo.com

²Present address: House 64, Road 9A, Dhanmondi R/A, Dhaka 1205, Bangladesh.

A total of 90 plant species have been recorded which are used in the treatment of different ailments by the Chakma people. For each species, scientific, local and family names, part(s) used and diseases treated are presented in the Table 1. Out of the total 90 species, three species, *viz.* *Brownea coccinea* Jacq., *Gomphostemma parviflora* Wall. and *Pyrrosia piloselloides* M.G. (Pteridophyte) were recorded to have medicinal value for the first time from Bangladesh (Hassan and Khan 1986, 1996, Mia and Huq 1988, Alam 1992, Alam *et al.* 1996, Yusuf *et al.* 1994, 2006, Chowdhury *et al.* 1996, Ghani 1998, Uddin *et al.* 2001, 2004, 2006, Khan *et al.* 2002, Chakma *et al.* 2003, Rahman *et al.* 2003). The list of medicinal plants of Chakma people presented in this article is not a complete list. To make a complete list further long term survey is necessary.

Table 1. A list of medicinal plants used by the Chakma people of Bangladesh. Scientific names of medicinal plants are arranged in alphabetical order.

Sl. No.	Scientific name	Chakma name	Family	Part(s) used	Disease(s) or symptom(s) to be treated
1.	<i>Abelmoschus moschatus</i> Medik.	Kona-gach	Malvaceae	Leaves, seeds	Stomach ache
2.	<i>Abroma augusta</i> L.	Gash-chola	Sterculiaceae	Calyx, seeds	Snake bite
3.	<i>Achyranthes aspera</i> L.	Ubo-langara	Amaranthaceae	Leaves	Stomach ache, abortion
4.	<i>Adhatoda zeylanica</i> Medik.	Basok-pata	Acanthaceae	Leaves	Cold, cough
5.	<i>Ageratum conyzoides</i> L.	Monimozza-khar	Asteraceae	Leaves	Wounds, skin diseases
6.	<i>Alocasia indica</i> (Rox.) Scott.	Man-kuchu	Araceae	Leaves	Rheumatism, constipation
7.	<i>Aloe indica</i> L.	Ghrito-kumari	Liliaceae	Leaves	Wounds, burning
8.	<i>Alpinia conchigera</i> Griff.	Khetrange	Zingiberaceae	Rhizomes	Wounds
9.	<i>Amaranthus viridis</i> L.	Bhul-maresh	Amaranthaceae	Leaves	Fever
10.	<i>Ampelygonum chinensis</i> (L.) Lindly	Mono-eja-dar	Polygonaceae	Whole plant	Antiseptic
11.	<i>Ananus sativus</i> Schult.	Anash	Bromeliaceae	Unripe fruits	Anthelmintic
12.	<i>Angiopteris evecta</i> (Frost.) Hoffm.	Hadibo-muro	Angiopteridaceae	Stems (caudex)	Blood cancer
13.	<i>Anisomeles indica</i> (L.) Kuntze	Jharbo-horin sing	Lamiaceae	Leaves	Gout, rheumatism
14.	<i>Aphania danura</i> (Roxb.) Radlk.	Gach-challa	Sapindaceae	Roots bark	Dysentery
15.	<i>Areca catechu</i> L.	Subori	Arecaceae	Roots	Urination problem
16.	<i>Azadirachta indica</i> A. Juss.	Nim	Meliaceae	Leaves	Skin diseases
17.	<i>Baliospermum montanum</i> (Willd) Muell.	Shapan-pan	Euphorbiaceae	Leaves	Antidote
18.	<i>Bambusa tulda</i> Roxb.	Midinga-bash	Poaceae	Leaves	Diabetes
19.	<i>Barleria lupulina</i> Lindl.	Sornomukhi	Acanthaceae	Whole plant	Skin diseases
20.	<i>Bombax ceiba</i> L.	Shimul-tuolo-gach	Bombacaceae	Roots, flowers	Impotency, pox, aphrodisiac, food
21.	<i>Brownea coccinea</i> Jacq.	Kurochit-sak	Fabaceae	Roots, leaves	Gynecological problem
22.	<i>Cajanus cajan</i> (L.) Huth.	Dumisumi	Fabaceae	Leaves	Jaundice, diabetes

(Contd.)

Table 1 contd.

Sl. No.	Scientific name	Chakma name	Family	Part(s) used	Disease(s) or symptom(s) to be treated
23.	<i>Calamus latifolius</i> Roxb.	Karat-bet	Arecaceae	Stems	Fracture
24.	<i>Calotropis gigantea</i> R. Br.	Akonda	Asclepiadaceae	Leaves, latex	Asthma, wounds
25.	<i>Cardiospermum helicacabum</i> L.	Kataboksa-shak	Sapindaceae	Whole plant	Measles
26.	<i>Cassia hirsuta</i> L.	Sabo-daru	Fabaceae	Leaves	Snake bite
27.	<i>Celosia argentea</i> L.	Hiang-morish	Amaranthaceae	Leaves	Ear diseases
28.	<i>Celosia cristata</i> L.	Radakuro-phul	Amaranthaceae	Leaves	Wounds
29.	<i>Centella asiatica</i> Urban.	Thankuni	Umbelliferae	Whole plant	Blood dysentery
30.	<i>Centipeda minima</i> (L.) A.Br.	Hatchuni	Asteraceae	Whole plant	Nasal problem
31.	<i>Clerodendrum indicum</i> (L.) Kuntze	Noli-gach	Verbenaceae	Roots	Stop bleeding
32.	<i>Clerodendrum viscosum</i> Vent.	Veck-gach	Verbenaceae	Leaves	Sores, diabetes
33.	<i>Cnesmone javanica</i> Bl.	Chotta	Euphorbiaceae	Leaves	Snake bite, blood cancer
34.	<i>Coccinia cordifolia</i> Cogn.	Tela-kuchu	Cucurbitaceae	Whole plant	Diabetes, burning sensation
35.	<i>Crotalaria pallida</i> Ait.	Kudugo-jhunjhuni (1)	Fabaceae	Roots, leaves	Stomach pain, urination problem
36.	<i>Curcuma caesia</i> Roxb.	Kala-holod	Zingiberaceae	Rhizomes	Anti-poison, sore throat
37.	<i>Curcuma longa</i> L.	Holod	Zingiberaceae	Flowers, rhizomes	Blood purifier, tonic
38.	<i>Cymbopogon citratus</i> Stapf.	Dhan-sabarang	Poaceae	Roots, leaves	Cold, stomach ache
39.	<i>Cyperus diffusus</i> Vahl	Perazary	Cyperaceae	Leaves	Antiseptic
40.	<i>Delima sarmentosa</i> L.	Ulu-ludi	Dilleniaceae	Roots, leaves	Fever
41.	<i>Desmodium triquetrum</i> DC.	Komorsina	Fabaceae	Leaves	Paralysis
42.	<i>Diploclisia glaucescens</i> (Bl.) Diels	Sonattola	Menispermaceae	Leaves	Rheumatic pain
43.	<i>Dysophylla crassicaulis</i> Benth.	Shel-pata-richa	Lamiaceae	Leaves	Menstrual problem (stop bleeding)
44.	<i>Entada phaseoloides</i> (L.) Merr.	Gila	Fabaceae	Seeds	Poisoning, play game
45.	<i>Eupatorium odoratum</i> L.	Assam-pata	Asteraceae	Leaves	Wounds
46.	<i>Ficus racemosa</i> L.	Jagga-dumur	Moraceae	Fruits	Invigoritive
47.	<i>Gomphostemma parviflorum</i> Wall.	Kudugo-jhunjhuni (2)	Lamiaceae	Roots	Irregular menstruation
48.	<i>Hibiscus radiatus</i> Cav.	Sorbo-amila	Malvaceae	Leaves	Jaundice
49.	<i>Hibiscus sabdariffa</i> L.	Amila	Malvaceae	Leaves	Catarrh
50.	<i>Hoya acuminata</i> (Wight) Benth.	Pasha-mash	Asclepiadaceae	Leaves	Ear diseases
51.	<i>Kalanchoe pinnata</i> (Lamk.) Pers.	Pathor -kuchi	Crassulaceae	Leaves	Ear lesion, urination problem
52.	<i>Lagenaria siceraria</i> (Molina) Standley	Kudugulo	Cucurbitaceae	Roots	Throat diseases
53.	<i>Leea macrophylla</i> Roxb.	Baggach	Leeaceae	Roots, leaves	Fracture, rheumatism
54.	<i>Lygodium flexuosum</i> Sw.	Kogti-jurgo	Lygodiaceae	Leaves	Sores
55.	<i>Mangifera indica</i> L.	Am	Anacardiaceae	Seeds	Diabetes, tonic

(Contd.)

Table 1 contd.

Sl. No.	Scientific name	Chakma name	Family	Part(s) used	Disease(s) or symptom(s) to be treated
56.	<i>Melastoma malabathricum</i> L.	Moha-putting-gulo	Melastomaceae	Roots	Stomach ache
57.	<i>Moghania macrophylla</i> Kuntze	Kodorothang-gach	Fabaceae	Leaves	Gastric
58.	<i>Moringa oleifera</i> Lamk.	Sajna	Moringaceae	Stems bark	Back ache, rheumatism
59.	<i>Musa sapientum</i> L.	Kola-gach	Musaceae	Leaves	Tumor
60.	<i>Mussaenda glabra</i> Vahl	Bissollo-karani/ Gach-ranirtak	Rubiaceae	Whole plant	Menstrual problem
61.	<i>Ocimum americanum</i> L.	Sabarang	Lamiaceae	Whole plant	Stimulant
62.	<i>Ocimum gratissimum</i> L.	Mitha-phul/Ram-tulsi	Lamiaceae	Leaves	Nasal diseases, skin diseases
63.	<i>Oroxylum indicum</i> (L.) Vent.	Fona-gulogach	Bignoniaceae	Stem bark	Jaundice
64.	<i>Oxalis corniculata</i> L.	Amrul	Oxalidaceae	Whole plant	Constipation
65.	<i>Paederia foetida</i> L.	Pada-bash-ludi	Rubiaceae	Leaves	Joint pain, rheumatism
66.	<i>Peliosanthes teta</i> Andrews	Dhub-melony	Liliaceae	Roots	Wounds
67.	<i>Pentapetes phoenicea</i> L.	Dibuzza-phul-gach	Sterculiaceae	Leaves	Boils
68.	<i>Phlogacanthus thyrsiflorus</i> N.E.	Vargi-nola	Acanthaceae	Leaves	Gout, rheumatism
69.	<i>Phylanthus emblica</i> L.	Amoloki	Euphorbiaceae	Fruits	Constipation
70.	<i>Piper nigrum</i> L.	Gul-morish	Piperaceae	Roots, leaves	Fever, cough, catarrh, rheumatism
71.	<i>Plumbago indica</i> L.	Rangajat aguna- teda	Plumbaginaceae	Roots	Stomach ache
72.	<i>Plumbago zeylanica</i> L.	Chita-mul	Plumbaginaceae	Roots	Stomach ache
73.	<i>Plumeria rubra</i> L.	Bak-phul	Apocynaceae	Roots, stems	Blood cancer
74.	<i>Polygonum flaccidum</i> Meissn.	Biskatali	Polygonaceae	Leaves	Sores and boils, antiseptic
75.	<i>Pothos scandens</i> L.	Komorsina	Araceae	Stems, leaves	Fracture
76.	<i>Premna esculenta</i> Roxb.	Lalom-pata	Verbenaceae	Leaves	Appetizer
77.	<i>Psidium guajava</i> Batt	Goium	Myrtaceae	Leaves	Dysentery, toothache
78.	<i>Pyrrosia piloselloides</i> M.G.	Tenga-chara	Polypodiaceae	Leaves	Ear ache
79.	<i>Rauvolfia serpentina</i> Benth. ex Kurz	Surchan	Apocynaceae	Roots	Blood pressure, stomach ache
80.	<i>Ricinus communis</i> L.	Varon pata	Euphorbiaceae	Leaves	Boils, gynecological problem
81.	<i>Rubus hexagynus</i> Roxb.	Kata-chola	Rosaceae	Roots	Fever
82.	<i>Solanum myriacanthum</i> Dun.	Karnafully	Solanaceae	Fruits	Aphrodisiac
83.	<i>Taebernaemontana divaricata</i> Bl.	Katto-dongor	Apocynaceae	Roots	Hiccup
84.	<i>Terminalia bellerica</i> Roxb.	Boragulo	Combretaceae	Stems barks, roots	Blood dysentery, urination problem
85.	<i>Terminalia chebula</i> Retz.	Hottail	Combretaceae	Fruits	Blood dysentery, stomach ache
86.	<i>Thevetia peruviana</i> (Pers.) Schum.	Goi-phul	Apocynaceae	Roots	Urination problem

(Contd.)

Table 1 contd.

Sl. No.	Scientific name	Chakma name	Family	Part(s) used	Disease(s) or symptom(s) to be treated
87.	<i>Typhonium trilobatum</i> (L.) Scott.	Harbaz	Araceae	Leaves	Rheumatism, body pain
88.	<i>Uraria crinita</i> (L.) Desv.	Bilai-langur	Fabaceae	Whole plant	Paralysis
89.	<i>Vernonia patula</i> (Dryand.) Merr.	Danta-utpal	Asteraceae	Roots	Stomach ache
90.	<i>Zingiber zerumbet</i> (L.) Sm.	Bhul-changa	Zingiberaceae	Rhizomes	Paralysis

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References

- Alam, M.K. 1992. Medical ethno-botany of the Marma tribe of Bangladesh. *Economic Botany* **46**(3): 330-330.
- Alam, M.K., Choudhury, J. and Hassan, M.A. 1996. Some folk formularies from Bangladesh. *Bangladesh J. Life Sci.* **8**(1): 49-63.
- Chakma, S., Hossain, M.K., Khan, B.M. and Kabir, M.A. 2003. Ethno-botanical knowledge of Chakma community in the use of medicinal plants in Chittagong Hill Tracts, Bangladesh. *MFP News* **XIII**(3): 3-7.
- Chowdhury, J., Alam, M.K. and Hassan, M.A. 1996. Some folk formularies against dysentery and diarrhea in Bangladesh. *J. Econ. Taxon. Bot. Additional Series* **12**. Scientific Publishers, Jodhpur, pp. 20-23.
- Ghani, A. 1998. Medicinal plants of Bangladesh: Chemical constituents and uses. Asiatic Society of Bangladesh, Dhaka, pp. 1-460.
- Hassan, M.A. and Khan, M.S. 1986. Ethnobotanical record of Bangladesh-1: Plants used for healing fractured bones. *J. Asiatic Soc. Bangladesh. (Sci.).* **12**(1&2): 33-39.
- Hassan, M.A. and Khan, M.A. 1996. Ethnobotanical record of Bangladesh-2. Plants used for healing cuts and wounds. *Bangladesh J. Plant Taxon.* **3**(2): 49-52.
- Khaleque, K. 1995. Ethnic communities of Bangladesh. In: Gain, P. (ed.) *Bangladesh, Land, Forest and Forest People*, pp. 1-25. Society for Environment and Human Development (SEHD), Dhaka.
- Khan, M.S., Hassan, M.A. and Uddin, M.Z. 2002. Ethnobotanical survey in Rema-Kalenga Wildlife Sanctuary (Habiganj) in Bangladesh. *Bangladesh J. Plant Taxon.* **9**(1): 51-60.
- Khisa, B. 1996. Chakma Talik Chikitsa. Herbal Medicine Centre Committee, Rajbari Bihar, Rajbari, Rangamati, 1-136 pp.
- Khisa, S.K. 1998. Ethnobotanical and cultural background of ethnic communities in forest resource management in Chittagong Hill Tracts. In: Banic, R.L., Alam, M.K., Pei, S.J. and Rastogi, A. (eds), *Applied Ethno-botany*, pp. 56-63. Bangladesh Forest Research Institute, Chittagong.
- Rahman, M.A. 2003. Ethno-medico-botanical knowledge among tribals of Bangladesh. In: *Ethnobotany and Medicinal Plants of Indian subcontinent*, pp. 89-93. Scientific Publisher, Jodhpur.

- Rahman, M.A., Khisa, A., Uddin, S.B. and Wilcock, C.C. 2003. Indigenous knowledge of herbal medicine in Bangladesh - treatment of jaundice by the tribal communities of hill tracts districts. In: Sillitoe, P. (ed.), Indigenous Knowledge Development in Bangladesh - Present and Future, pp. 75-78.
- Rahman, M.A. and Uddin, S.B. 1998. Some anti-rheumatic plants used by tribal people of Hill Tracts district. Biodiversity Newsletter, University of Chittagong **2**(2): 4.
- Rahman, M.A., Uddin, S.B. and Khisa, A. 1998. A report on some anti-jaundice plants from tribal community of Hill Tracts district. Biodiversity Newsletter, University of Chittagong **2**(1): 4.
- Mia, M.M.K. and Huq, A.M. 1988. A preliminary ethno-botanical survey in the Jointiapur, Tamabil and Jafflong area, Sylhet, Bangladesh National Herbarium Bull. **3**: 1-10.
- Tripura, S.L. 1994. Nature and Culture of the Chittagong Hill Tracts. Tribal Culture Institute, Rangamati Hill District, pp. 1-192.
- Uddin, S.B. 2001. A comparative ethno botanical study among the tribal communities of Chittagong Hill Tracts, Bangladesh. PhD thesis, the University of Aberdeen, UK.
- Uddin, M.Z., Hassan, M.A. and Sultana, M. 2006. Ethnobotanical survey of medicinal plants in Phulbari Upazila of Dinajpur District, Bangladesh. Bangladesh J. Plant Taxon. **12**(1): 63-68.
- Uddin, M.Z., Khan, M.S. and Hassan, M.A. 2001. Ethno medical plants records of Kalenga forest range (Habiganj), Bangladesh for malaria, jaundice, diarrhea and dysentery. Bangladesh J. Plant Taxon. **8**(1): 101-104.
- Uddin, S.N., Uddin, M.Z., Hassan, M.A. and Rahman, M.M. 2004. Preliminary ethno-medical plant survey in Khagrachari district, Bangladesh. Bangladesh J. Plant Taxon. **11**(2): 39-48.
- Yusuf, M., Choudhury, J.U., Wahab, M.A. and Begum, J. 1994. Medicinal plants of Bangladesh. Bangladesh Council of Scientific and Industrial Research, Dhaka, Bangladesh, pp. 1-340.
- Yusuf, M., Rahman, M.A., Choudhury, J.U. and Begum, J. 2002. Indigenous knowledge about the use of Zingibers in Bangladesh. J. Econ. Taxon. Bot. **26**(3): 566-570.
- Yusuf, M., Wahab, M.A., Choudhury, J.U. and Begum, J. 2006. Ethno-medico-botanical knowledge from Kaulkhali proper and Betunia of Rangamati district. Bangladesh J. Plant Taxon. **13**(1): 55-61.

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