

Ethnoiatrical uses of *Euphorbia antiquorum* L. and *E. ligularia* Roxb. in Assam

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Received 20 March 2006; revised 1 January 2008

The paper deals with information on use of *Euphorbia antiquorum* L. and *E. ligularia* Roxb. in traditional medicine of Assam. During ethnobotanical survey conducted among different ethnic groups of the state, 24 prescriptions using the above two species against 20 ailments have been recorded.

Keywords: Traditional medicine, *Euphorbia* sp., Assam

IPC Int. Cl.⁸: A61K36/00, A61P9/14, A61P11/00, A61P11/06, A61P17/00, A61P17/02, A61P19/00, A61P27/14, A61P29/00, A61P39/02

Assam, one of the northeastern states lies between 20°51' N - 27°58' N latitude and 89°49' E - 97°26' E longitude. It is the homeland of large number of diverse ethnic groups including 23 scheduled tribes, and has an area of 78,523 sq km. The state has a humid subtropical climate, covered with tropical and subtropical forest to moist deciduous and dry deciduous forest. With almost impenetrable immense green landscape, the state is very rich in diversity of flora. Being a state of the eastern Himalayan biodiversity hot spot, Assam is very rich in biodiversity as well as traditional knowledge. About 80% of the population of Assam resides in rural areas and the people of these rural and remote localities by and large are dependent on natural resources around them for their day to day life including their healthcare needs. Thus, the use of herbs in curing ailments is a long and living tradition of the state. In the last two decades, several reports on ethnobotany and traditional knowledge including ethnomedicine of Assam have provided substantial useful information of traditional knowledge on different plants¹⁻¹⁴. In the study, a search has been made for ethnomedicinal uses of these two plants in the state.

Methodology

During ethnobotanical survey in different parts of the state, information was gathered from the total traditional medicine men & women and elderly people

among different ethnic groups about the plants and their uses for different ailments¹⁵. The information obtained was further verified by cross checking with other informants and medicine men of different areas of the state. As part of the verification, actual uses were observed and the feedbacks from the patients were taken. Herbarium specimens were prepared and deposited in the Herbaria of Botany Department, Gauhati University. *Euphorbia antiquorum* L. and *E. ligularia* Roxb.=*E. nerifolia* sensu Hook.f. (Fl Br Ind, non L.) belonging to family Euphorbiaceae are shrub or small tree. *Euphorbia antiquorum* (Fig. 1) is characterized by having 3-winged branchlets and stipular spines on sinuate repend wings while *E. ligularia* (Fig. 2) is characterized by having 5-angled branches with vertical rows of tubercles bearing sharp stipular spines (Ph-I and Ph-II). In Assam, both the species are commonly known by same vernacular name *Siju*, and both the species are used in traditional medicine since long for the same purpose.

Observations

The observations, made during ethnobotanical survey are presented as prescriptions for various ailments. Root bark decoction two teaspoonfuls once daily in the morning is given for purging of bowels. Root paste made with black pepper is applied on snake and poisonous insect bite. Stem poultice is applied on abscess twice daily for three days or till cure. Grooved stem is inserted into the finger in painful swelling. Stem poultice is applied on boils for three days. Stem pith pounded with bark of *Ficus*

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Fig. 1—*Euphorbia antiquorum* L

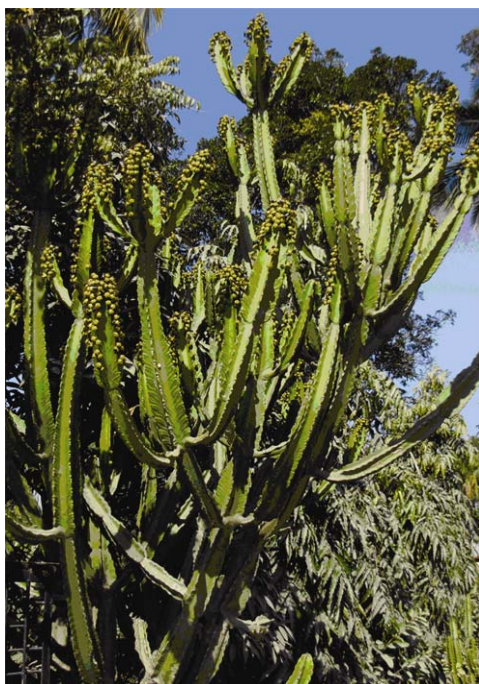


Fig. 2—*E. ligularia* Roxb. = *E. neriifolia* sensu Hook.f.

glomerata Roxb. and *Streblus asper* Lour., leaves of *Pericampylus glaucus* (Lam.) Merrill. in equal parts is given with cow's milk twice daily for a week in haematuria. Leaf juice mixed with castor oil is used as massage twice daily for a long time in rheumatism. Leaf extract is given in cough as expectorant and also in influenza. Leaf paste is applied twice daily on boils. Leaf juice is used as diuretic. Warm leaf paste is applied on lower abdomen as diuretic. Paste prepared from plant leaf with leaves of *Blumea lacera* (Burm.) DC., *Sida rhombifolia* L., and *Holarrhena antidysenterica* Wall., bark of *Crataeva magna* (Lour.) DC., *Litsea glutinosa* (Lour.) Robinson and *Bombax ceiba* L. and root of *Dracaena angustifolia* Roxb. in equal parts is applied on malignant pustule for 3 days. Leaf pounded with leaves of *Calotropis gigantea* (L.) R.Br., *Cassia fistula* L., and *Tagetes patula* L. and a little amount of cow's urine is applied on leucoderma and ringworm twice or thrice daily till cure. Paste prepared from stem bark pounded with that of *Morinda angustifolia* Roxb. and leaf of *Calotropis gigantea* (L.) R.Br. in equal parts is applied on rectum in fistula for a fortnight. Roasted stem pith paste is applied as cold application on forehead in pneumonic fever.

Latex is used in otorrhoea. *Jatropha curcas* L. latex, *Tinospora cordifolia* Miers. stem and honey in equal parts one or two teaspoonfuls twice daily for a month is given in asthma. Paste prepared with plant latex, *Terminalia chebula* (Gaertn.) Retz. fruit, black pepper, long pepper and borax in equal parts is made into pills of about 2 gm each, which are given as purgative. Latex pounded with equal quantities of black cumin and made into paste, is applied on forehead in headache. Latex is also applied on sty, boils and wart. Plant latex mixed with that of *Calotropis gigantea* (L.) R.Br. and *Morinda angustifolia* Roxb. stem powder in equal parts, made into small pills is applied two to three times daily for a fortnight in fistula. Paste prepared from plant latex mixed with that of *Calotropis gigantea* (L.) R.Br. and turmeric powder is applied twice daily for three weeks on piles. Few drops of latex mixed with seed paste of *Cassia fistula* L. and *Caesalpinia bonduc* (L.) Roxb. is applied on ringworm and eczema 2-3 times daily till cure. Latex mixed with that of *Calotropis gigantea* (L.) R.Br. and bark powder of *Morinda angustifolia* Roxb. in equal parts, made into paste is applied on carbuncle.

Discussion and conclusion

The work is the result of intensive systematic ethnobotanical studies conducted in different areas of

Assam, where 24 prescriptions using these two plant species against 20 ailments have been recorded. Though different treatises on medicinal plants have mentioned about various uses of these two plants against a number of diseases, in the study some new information on the use of these two species are recorded, which are not recorded earlier or not widely known^{16,17}. The remedies and prescriptions recorded in the study have been well accepted by rural people and seem to be quite effective and successfully practiced by the local traditional healers, locally known as *Vaidyas*, *Bej*, *Kabiraj* or *Ojah*. This provides sufficient ground to consider the efficacies of traditional medicines. Thus, there are ample opportunities to conduct further scientific analysis and test on these remedies for development of new/alternate effective medicines. Hence, the findings mark an addition to existing knowledge and considered to be useful for the welfare of human beings in today's trend of biopiracy and patent regime.

Acknowledgement

Authors are grateful to the local traditional medicine men, women and some elderly knowledgeable persons of the remote villages of the state for sharing the information, their help and cooperation extended during field studies.

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