

Exploration to Aquatic Ethnomedicinal Plants of Paschim Medinipur District, West Bengal

DEBASIS BHUNIA AND AMAL KUMAR MONDAL

*Plant Taxonomy & Biosystematics Laboratory, Department of Botany & Forestry, Vidyasagar University
Midnapore 721102, India
E-mail : amalcaebotvu@gmail.com*

Abstract

The district Paschim Medinipur mostly covered with tribal people specially in Jhargram sub-division. The heavy rainfall, high humidity and moderate temperature, are collectively responsible for rich amalgamation of different aquatic medicinal plant types with vast stretches of water bodies existing in this district added to rich aquatic plant diversity. About 75 medicinal plants which were collected and identified botanically, documented alphabetically along with their family names, tribal or local names, method of application of their parts and ethnomedicinal important particularly consulting with tribal people.

Key words : Paschim Medinipur, Medicinal uses, Aquatic medicinal plants, Tribal people.

The last few decades scientists all over the world are giving more attention to the analysis of new applied science, like ethnobotany. Since 1960s this analysis has been done, on 45,000 plant species in India, which are used as medicinal plants among the 550 tribal communities belonging to 160 linguistic groups inhabited different geographical and climatic zones with much more plant diversity (1). Tribals are living close to nature which helps them to acquire knowledge about ethnomedicine. Our preliminary studies on aquatic medicinal plants 75 plant species were collected, identified as aquatic ethnomedicinal plants. Ethnomedicinal use of plants and their requirement also studies among the tribal people such as Lodha, Munda, Oraon, Santal and other tribal communities. The roots, barks, leaves and fruits, are taken from the plants for use as ethnomedicine. The remedies of common ailments like cuts, headache, pain, fever are known to the most of the members of the tribal communities. Most of these plants are used in the preparation of herbal drugs such as Ayurved, Unani, Siddha and Tantra therapy. The prevailing disease of the tribal people are bilious ness, fever, colic, diarrhea, dysentery, dyspepsia, ging ring worm, scabies ulcer, venereal diseases ; common female diseases are amenorrhoea, anemia, menorrhagia, dysmenorrhoea, hysteria, mastitis, leucorrhoea (2, 3).

Methods

The plants were collected after regular field

trips to the different tribal aquatic zones of the district of Paschim Medinipur. The plants were identified with the help of available literature and the herbarium of the Department of Botany and Forestry, Vidyasagar University. The information regarding medicinal values, tribals name, common names, description, flowering and fruiting periods, application and ethnomedicinal importance were documented. The plant materials were preserved following the standard method and the herbarium specimens were preserved.

Results and Discussion

In all 75 species of ethnomedicinal plants belonging to 37 families were collected and arranged alphabetically giving botanical name, family, local name, parts used (Table 1).

Medicinal Uses of Plant Parts

1. *Acorus calamus* L.

Uses : Lodhas give root paste in treatment of chicken pox, children fever ; Rhizome paste in treatment of Pneumonia, cancer ; Root powder used with ash for killing lice on bodies of chicken ; rootstocks are used as carminative (1, 4).

2. *Aeschynomena aspera* L.

Uses : Root paste used for jaundice (1).

Table 1. Ethnomedicinal plants with their family, tribal/local names, habit, flowering and fruiting periods. FL, flowering ; FR, fruiting.

Name of the plants	Family	Tribal name	Habit	FL & FR periods
1. <i>Acorus calamus</i> L.	Araceae	Panibach	Aromatic herbs	Rainy season
2. <i>Aeschynomene aspera</i> L.	Fabaceae	Sola	Under-shurbs	Aug—Dec
3. <i>A. indica</i> L.	Fabaceae	Kath-sola	Under-shurbs	Aug—Dec
4. <i>Alisma plantago</i> L.	Alismaceae	Kacchu	Herbs	Jul—Dec
5. <i>Alternanthera sessilis</i> (L.) R. Br. ex. Dc.	Amaranthaceae	Senchi	Herbs	Jul—Jun
6. <i>A. ficoidea</i> (L.) R. Br.	Amaranthaceae	Jalsachiara	Herbs	Feb—Jul
7. <i>Apluda mutica</i> L.	Poaceae	Tati	Herbs	Sep—Jan
8. <i>Arundo donax</i> L.	Poaceae	Nal-gaha	Herbs	Oct—Jan
9. <i>Cryptocoryne cilata</i> Fisch	Aroideaceae	Kerali	Herbs	Jul—Oct
10. <i>Commelina diffusa</i> Burm	Commelinaceae	Badokansira	Herbs	Sep—Jan
11. <i>C. paludosa</i> Blume	Commelinaceae	Jata-kansira	Stout Herb	Jun—Jan
12. <i>Cyperus difformis</i> L.	Cyperaceae	Behua	Herbs	Aug—Jan
13. <i>Desmodium motorium</i> (Houtt.) Merr.	Fabaceae	Ote-atill	Under-Shrubs	Aug—Dec
14. <i>Drosera burmannii</i> Vahl	Droseraceae	Tikely	Herbs	Oct—Apr
15. <i>Eichhornia crassipes</i> (Mart) Solms.	Pontedericeae	Kachuripana	Herbs	Feb—Jun
16. <i>Echinochloa crus-galli</i> (L.) P. Beauv.	Poaceae	Jal-shamaghas	Herbs	Apr—Aug
17. <i>Enhydra fluctuans</i> Lour.	Asteraceae	Hingcha	Herbs	Feb—May
18. <i>Eragrostis natans</i> (Retz.) Nees ex Steud.	Poaceae	Jono-tasad	Herbs	Rainy season
19. <i>Hedyotis corymbosa</i> (L.) Lamk.	Rubiaceae	Asangao	Herbs	Round year
20. <i>Hemarthria compressa</i> (L.f.) R. Br.	Poaceae	Pansheru	Herbs	Jun—Sep
21. <i>Hydrilla verticillata</i> (L.f.) Royle	Hydrocharideaceae	Jhangi	Herbs	Jan—Feb
22. <i>Hygrophila auriculata</i> (K. Schum.) Heine.	Acanthaceae	Singharo	Herbs	Jun—Dec
23. <i>Hygroryza aristata</i> (Retz.) Nees. Ex Wight & Arn.	Poaceae	Jamglo-dha	Floating herbs	Jul—Dec
24. <i>Ipomoea aquatica</i> Forsk.	Convolvulaceae	Karmi-ba	Herbs	Round year
25. <i>Juncus bufonius</i> Linn.	Juncaceae	June	Herbs	Oct—Mar
26. <i>Lasia spinosa</i> (L.) Thw.	Araceae	Janumsaru	Herbs	Dec—Feb
27. <i>Lemna minor</i> L.	Lemnaceae	Khudipana	Herbs	Aug—Sep
28. <i>L. polyrrhiza</i> L.	Lemnaceae	Pana	Herbs	Aug—Sep
29. <i>Limnophyton obtusifolium</i> (L.) Miq.	Alismaceae	Pani-ara	Herbs	Feb—Jul
30. <i>Limnophila indica</i> (L.) Druce.	Scrophulariaceae	Kodo-sag	Herbs	Sep—Feb
31. <i>Ludwigia adscendens</i> (L.) Hara	Onagraceae	Keshardam	Herbs	Jul—Nov
32. <i>L. parviflora</i> Roxb.	Onagraceae	Jalghas	Herbs	Sep—Nov
33. <i>Marsilea minuta</i> L.	Marsileaceae	Susni	Herbs	Oct—Feb
34. <i>Mentha aquatica</i> L.	Lamiaceae	Water mint	Herbs	Oct—Dec
35. <i>Monochoria hastataefolia</i> Presl.	Pontedericeae	Jal-kundri	Herbs	Aug—Nov
36. <i>M. vaginalis</i> Presl.	Pontedericeae	Nukha	Herbs	Oct—Feb
37. <i>Najas indica</i> Cham	Najadaceae		Herbs	Aug—Nov
38. <i>Nelumbo nucifera</i> Gaertn	Nymphaeaceae	Padma	Herbs	Jun—Jan
39. <i>Neptunia oleracea</i> Lour.	Mimosaceae	Alambusa	Herbs	Monsoon season
40. <i>N. natans</i> (L. f.) Druce	Mimosaceae	Pani-najak	Herbs	Jul—Nov
41. <i>Nymphaea alba</i> L.	Nymphaeaceae	Swetshaluk	Herbs	Jul—Jan
42. <i>N. pubescens</i> Willd	Nymphaeaceae	Chotokamal	Herbs	Apr—Nov
43. <i>N. nouchali</i> Burm. f.	Nymphaeaceae	Raktosaluk	Herbs	Jun—Jan
44. <i>N. stellata</i> Willd.	Nymphaeaceae	Nil-padma	Herbs	Jul—Jan
45. <i>Nymphoides indica</i> (L.) O. Kuntze	Menyanthaceae	Jalchirata	Herbs	Most of year

Table 1. Continued.

	Name of the plants	Family	Tribal name	Habit	FL & FR periods
46.	<i>Oryza rufipogon</i> Griff.	Poaceae	Jhari	Herbs	Jun—Dec
47.	<i>O. sativa</i> L.	Poaceae	Dhan	Herbs	Round year
48.	<i>Ottelia alismoides</i> (L.) Pres.	Hydrocharideaceae	Parmikalla	Herbs	Aug—Sep
49.	<i>Oxalis corniculata</i>	Oxalidaceae	Amboti	Herbs	Round year
50.	<i>Panicum crus-galli</i> L.	Gramineaceae	Bara-shama	Herbs	Jul—Nov
51.	<i>Panicum psilopodium</i> Trin	Poaceae	Chikni	Herbs	Jun—Dec
52.	<i>P. repens</i> L.	Poaceae	Adigantia	Herbs	Jun—Dec
53.	<i>Peperomia pellucida</i> (L.) H. B. K.	Peperomiaceae	Ban-pipali	Herbs	Jun—Jan
54.	<i>Phyla nodiflora</i> L.	Verbenaceae	Jalpapy	Herbs	Oct—Feb
55.	<i>Pistia stratiotes</i> L.	Arceae	Topapanna	Herbs	Mar—Sep
56.	<i>Pongamia pinnata</i> (L.) Merre.	Fabaceae	Karanja	Herbs	May—Jan
57.	<i>Ranunculus sceleratus</i> L.	Ranunculaceae	Birmani	Herbs	Nov—Apr
58.	<i>Rungia pectinata</i> (L.) Nees	Acanthaceae	Sibjata	Herbs	Apr—Oct
59.	<i>Ruppia rostellata</i> Kouch	Ruppiaceae		Herbs	Aug—Dec
60.	<i>Sascharum spontaneum</i> L.	Poaceae	Noble-cane	Herbs	Oct—Feb
61.	<i>Sacciolepis interrupta</i> (Willd.) Stapf	Poaceae	Nardul	Herbs	Rainy season
62.	<i>Sagittaria trifolia</i> L.	Alismataceae	Pani-kachuri	Herbs	Rainy season
63.	<i>Salvia plebeia</i> R. Br.	Lamiaceae	Tukhmaria	Herbs	Nov—Apr
64.	<i>Sarcostemma secamone</i> (L.) Bennet	Periplocaceae	Jal-kachu	Herbs	Aug—Dec
65.	<i>Sesbania bispinosa</i> (Jacq.) Wt.	Fabaceae	Dharehia	Herbs	Aug—Oct
66.	<i>Trapa bispinosa</i> L.	Trapaceae	Panifal	Herbs	Aug—Jan
67.	<i>Typha australis</i> Schum. & Thonn.	Typhaceae	Hogla	Herbs	May—Aug
68.	<i>T. angustata</i> Bory & Chaub	Typhaceae	Hogla	Herbs	Aug—Oct
69.	<i>T. elephantine</i> Roxb.	Typhaceae	Baro-Hogla	Herbs	Aug—Oct
70.	<i>Utricularia bifida</i> L.	Lentibulariaceae	Choto-jhagi	Herbs	Oct—Feb
71.	<i>U. reticulata</i> Smith.	Lentibulariaceae	Jal-jhagi	Herbs	Sep—Jan
72.	<i>Vallisneria spiralis</i> L.	Hydrocharideaceae	Syla	Herbs	Aug—Dec
73.	<i>Wedelia calendulacea</i> Less	Asteraceae	Kesraj	Herbs	Jun—Oct
74.	<i>Wolffia arrhiza</i> Winn.	Lemnaceae	Chato-Pana	Herbs	Aug—Oct
75.	<i>Xylocarpus granatum</i> Koenig	Meliaceae	Pussur	Shurbs	Aug—Sep

3. *Aeschynomena indica* L.

Uses : Used in the treatment of fever, for relief from pains (1).

4. *Alisma plantago* L.

Uses : The plant is useful in vitiated conditions of pitta, diarrhea, dysentery, burning sensation, hyperdipsia, epistaxis, hematemesis, hemoptysis, ulcers and fever.

5. *Alternanthera sessilis* (L.) R. Br. ex. Dc.

Uses : Loadhas prescribe green plants as vegetable to women against deficiency of breast milk. Leaf juice used as drops in treatment of eye diseases (1,2).

6. *Alternanthera ficoidea* (L.) R. Br.

Uses : Lodha prescribe fresh stem juice in eye disease ; used in burning sensation of urination and as a suppository for abortion purpose (1, 2).

7. *Apluda mutica* L.

Uses : Mundas apply plant paste as cure for fungus infection in mouth of children ; cure on paralysis of legs of suspected victims of witchcraft (1).

8. *Arundo donax* L.

Uses : Lodhas give root decoction with paste to women in the treatment of scanty menstruation ; decoction of rhizomes with common salt to cattle dysentery (1).

9. *Cryptocoryne cilata* Fisch.
Uses : Plant extract used to stop bleeding, healing wounds and skin disease.
10. *Commelina diffusa* Burm.
Uses : The plant is useful in the treatment of wounds and acute conjunctivitis.
11. *Commelina paludosa* Blume.
Uses : The plant is useful in vitiated conditions of pitta, diarrhea, dysentery, burning sensation, hyperdipsia, epistaxis, haematemesis, haemoptysis, ulcers and fever (1).
12. *Cyperus difformis* L.
Uses : The rhizome given successfully in the treatment of irregular menstruation, gastralgia, dyspepsia, diarrhea and vomiting.
13. *Desmodium motorium* (Houtt.) Merr.
Uses : Plant decoction prescribes for dysentery ; dried root powder with common salt and warm milk for the treatment of unconsciousness (1, 3).
14. *Drosera burmannii* Vahl.
Uses : Plant paste with decoction of seedling as cure dysentery and with common salt in blood dysentery ; oraons put mucilage as cure for caries of teeth (1).
15. *Eichhornia crassipes* (Mart) Solms.
Uses : Prescribe root paste as cure for toothache ; fresh root paste for treatment of goiter (1).
16. *Echinochloa crus-galli* (L.) P. Beauv.
Uses : Prescribe plant juice with dry powder of turmeric in the treatment of internal hemorrhage and carbuncle (1).
17. *Enhydra fluctuans* Lour.
Uses : Prescribe fresh plant juice with goat milk in the treatment of constitutional disorders ; plant as vegetable for improving memory ; plant decoction used for diabetes and pox ; boiled leaves used as laxative ; plant paste as antidote to snake venom (1, 5).
18. *Eragrostis natans* (Retz.) Nees ex Steud.
Uses : Lodhas prescribe pounded roots with mustard oil for the treatment of rheumatism (1).
19. *Hedyotis corymbosa* (L.) Lamk.
Uses : Plant decoction used as refrigerant during fever ; plant paste used for burn wound and put on belly for dyspepsia ; seed paste treat for rheumatic swelling (1).
20. *Hemarthria compressa* (L.f.) R. Br.
Uses : Plant sap uses for treatment of eye diseases ; plant decoction used for improve appetite of children ; root paste used for dyspepsia (1).
21. *Hydrilla verticillata* (L.f.) Royle
Uses : Plant extract used to stop bleeding and for healing wounds.
22. *Hygrophila auriculata* (K. Schum.) Heine.
Uses : Plant decoction used in dropsy ; root paste for body pain ; stem decoction for treatment of constitutional disorder ; seed paste for tubercular fistula (1).
23. *Hygroryza aristata* (Retz.) Nees. Ex Wight & Arn.
Uses : Dried seed powder uses as astringent ; decoction with paste of ginger to patient suffering from prolonged fever (1).
24. *Ipomoea aquatica* Forsk.
Uses : Plant decoction for mother after delivery to recovery vitality ; plant juice for treatment of jaundice ; apply flower juice for treatment of eye diseases (1).
25. *Juncus bufonius* Linn.
Uses : Used in urethritis, fracture, lumbago, diuretic and toothache (5).
26. *Lasia spinosa* (L.) Thw.
Uses : Lodhas women apply juice of rhizomes for causing abortion ; paste of rhizomes for swelling caused by mumps ; rhizome decoction for treatment of throat disease ; petiole paste for treatment of piles (1).
27. *Lemna minor* L.
Uses : Plant extract used to stop bleeding, healing wounds and skin disease.
28. *Lemna polyrrhiza* L.
Uses : Small leaf juice prescribes for treatment of wound healing and to stop the bleeding, asthma, ringworm.
29. *Limnophyton obtusifolium* (L.) Miq.
Uses : Plant juices used for conceive of cow (1,6).
30. *Limnophila indica* (L.) Druce.
Uses : Plant paste used for treatment of elephantiasis ; plant juice for treatment of anthelmintic (1).
31. *Ludwigia adscendens* (L.) Hara.
Uses : Used in blood hemorrhage, wound healing, cough, bronchitis, leprosy.
32. *Ludwigia parviflora* Roxb.
Uses : Plant extract used to stop bleeding, healing wounds and skin disease.

33. *Marsilea minuta* L.
Uses : Whole plant used in psychopath, ophthalmic, diarrhea, cough, bronchitis, leprosy, hemorrhoides, blood pressure, dyspepsia, fever and epilepsy (3, 7).
34. *Mentha aquatica* L.
Uses : Leaves are prescribing for fever, bronchitis, sickness and vomiting ; mint oil used as gastric stimulant.
35. *Monochoria hastaeifolia* Presl.
Uses : Leaves are used in burning sensation of the body, vitiated conditions of pitta, dyspsia, strangury, gastropathy, cough, asthma (5).
36. *Monochoria vaginalis* Presl.
Uses : Rootstock and leaves are used in burning sensation of the body, vitiated conditions of pitta, dyspsia, strangury, gastropathy, cough, asthma, odontalgia, scurvy, hemorrhages.
37. *Najas indica* Cham.
Uses : Fresh plant extract used for blood hemorrhage, wound healing, asthma and skin disease.
38. *Nelumbo nucifera* Gaertn.
Uses : Root used in piles, dysentery, ring worm ; leaves and flowers buds used in diarrhea ; flowers used in cholera fever, liver disease ; seeds used in leprosy, vomiting ; decoction of rhizome used in menstrual disorder.
39. *Neptunia oleracea* Lour.
Uses : It is used by tribal people for the treatment of syphilis, burning sensation, dipsia, diarrhoea, strangury and helminthiasis ; useful in vitiated condition of pitta and otalgia.
40. *Neptunia natans* (L.f.) Druce.
Uses : For the treatment of syphilis, burning sensation, dipsia, diarrhoea, strangury and helminthiasis ; useful in vitiated condition of pitta and otalgia.
41. *Nymphaea alba* L.
Uses : Root and stock used in dysentery, blood disease, bleeding piles and blood urine ; flowers used in thirst, diarrhea, fainting and vomiting.
42. *Nymphaea pubescens* Willd.
Uses : Root and stock used in dysentery, blood disease, bleeding piles and blood urine ; flowers used in thirst, diarrhea, fainting and vomiting.
43. *Nymphaea nouchali* Burm. f.
Uses : Lodhas prescribe rhizome decoction for treatment of scanty menstruation ; fresh rhizome paste on belly as cure for dyspepsia ; dried rhizome powder used for blood dysentery ; young leaf paste on scabies ; root paste used for piles and rhizome paste for treatment of goiter and burn wounds (1).
44. *Nymphaea stellata* Willd.
Uses : Rhizome and stock used to treat dyspepsia, diarrhea, piles, blood disease, disea of urinary track infection.
45. *Nymphoides indica* (L.) O. Kuntze.
Uses : Plant decoction with common salt to women for treatment of fever after delivery ; leaf juice used for remove black spot on skin and fruit paste uses to cure headache on forehead ; root decoction for jaundice (1).
46. *Oryza rufipogon* Griff.
Uses : For conjunctivitis they used internodes as drop wise ; root paste apply for orchitis ; seed powder apply as diaphoretic ; give boiled seed to patient as diet during fever (1).
47. *Oryza sativa* L.
Uses : Nutritive food, rice gruel is given to the physically weak patients (6).
48. *Ottelia alismoides* (L.) Pres.
Uses : Leaf juice prescribes for treatment of wound healing and to stop the bleeding, asthma, ring-worm.
49. *Oxalis corniculata* L.
Uses : Plant decoction with common salt against insomnia ; plant juice with goat milk to children for whooping cough and blood dysentery ; apply leaf paste on belly as cure for dyspepsia ; leaf juice ineyees as drops for treatment of obque eye sight and against headache ; seed paste with garlic paste after warming, piles ; plant infusion to women during pregnancy as refrigerant ; leaf juice for treatment of nauseas ; apply leaf paste as cure for corn and worst on feet ; plant juice as antidote to snake poison (1).
50. *Panicum crus-galli* L.
Uses : Plant juice as drop in eye diseases ; apply paste of sharp pointed stolones with paste of black peppers as cure for piles.
51. *Panicum psilopodium* Trin.
Uses : Lodhas prescribe root decoction with common salt as cure for stomachache ; root paste on skin eruptions like pimples (1).
52. *Panicum repens* L.
Uses : Plant juice as drop in eye diseases ; apply

paste of sharp pointed stolones with paste of black peppers as cure for piles (1).

53. *Peperomia pellucida* (L.) H. B. K.

Uses : Prescribe for fungal infection ; plant juice on abdomen as remedial measure of abdomen pains ; plant paste for treatment of enlarged spleen and for reducing fever (1).

54. *Phyla nodiflora* L.

Uses : It is useful in vitiated conditions of pitta, burning of sensation, anorexia, flatulence, colic, dyspepsia, helminthiasis, diarrhea, ulcers, asthma, bronchitis, knee joint pain, gonorrhoea and fever (5).

55. *Pistia stratiotes* L.

Uses : Fresh plant extract is applied to ear pain eczema (6).

56. *Pongamia pinnata* (L.) Merre.

Uses : Stem bark paste used for treatment of whitlow (inflammation on finger joint) geen leaf for skin diseases ; seed oil for burn wounds, rheumatism ; seed powder for children whooping cough ; seeds paste for eczema (1).

57. *Ranunculus sceleratus* L.

Uses : Root paste for rheumatic swelling ; leaf paste for severe headache, swelling of legs (1, 8).

58. *Rungia pectinata* (L.) Nees.

Uses : Fresh leaf juice as preventive measure for small pox ; leaf paste for dropsy and suppuration ; boiled leaves as purgative ; plant decoction for scanty urination (1).

59. *Ruppia rostellata* Kouch.

Uses : Leaf juice prescribes for treatment of wound healing and to stop the bleeding, asthma, ringworm.

60. *Sascharum spontaneum* L.

Uses : Root decoction as diuretic ; root paste for allergic eruptions and useful for septic wounds of cattle (1).

61. *Sacciolepis interrupta* (Willd.) Stapf.

Uses : Plant decoction uses for treatment of stone in gall bladder (1).

62. *Sagittaria trifolia* L.

Uses : Take petioles for abortion ; leaf paste for treatment of swelling of breast ; poisonous insectstings.

63. *Salvia plebeia* R. Br.

Uses : Fresh seed paste used in urinary infection and other urinary tract disorders (6).

64. *Sarcostemma secamone* (L.) Bennet.

Uses : Root used for abortion and uses in healing wounds ; stem decoction for secretion and flow of milk of women ; leaf paste for leucoderma ; latex for allergic eruption on skin (1).

65. *Sesbania bispinosa* (Jacq.) Wt.

Uses : Seed paste used for ringworm boiled flower and fruit as laxative (1).

66. *Trapa bispinosa* L.

Uses : Fruit paste use for healing bone fracture, dried powder for treatment of constitutional disorders (1).

67. *Typha australis* Schum. & Thonn.

Uses : Root paste used for dropsy, skin eruptions ; rhizome decoction in ear as drop for purulent discharges ; root decoction use for madness (1).

68. *Typha angustata* Bory & Chaub.

Uses : Root paste used for skin eruptions ; rhizome decoction in ear as drop for purulent discharges.

69. *Typha elephantine* Roxb.

Uses : Root paste used for dropsy, skin eruptions ; rhizome decoction in ear as drop for purulent discharges ; root decoction use for madness.

70. *Utricularia bifida* L.

Uses : Plant paste with decoction of seedling as cure dysentery and with common salt in blood dysentery ; oraons put mucilage as cure for caries of teeth.

71. *Utricularia reticulate* Smith.

Uses : For the treatment of syphilis, burning sensation, dipsia, diarrhoea, strangury and helminthiasis ; useful in vitiated condition of pitta and otalgia.

72. *Vallisneria spiralis* L.

Uses : Plant extract used to stop bleeding and for healing wounds.

73. *Wedelia calendulacea* Less.

Uses : For the treatment of phelegmon, impetigo, mastitis, cystitis, eruptive fever.

74. *Wolffia arrhiza* Winn.

Uses : Small leaf juice prescribes for treatment of wound healing and to stop the bleeding, asthma.

75. *Xylocarpus granatum* Koenig.

Uses : Used as remedy for blood in urine, weak-

ness after child birth ; decoction of bark used for stomachache, coughs and injury.

A total of 75 aquatic and marshy plant species, belonging to 57 genera are recorded from preliminary survey of the district Paschim Medinipur. Plants are used in different diseases of the tribal people such as excessive thirst, diarrhea and fever, phlegmon, impetigo, mastitis, cystitis, eruptive fever, dysentery, burning sensation, hyperdipsia, epistaxis dyspepsia, vomiting, toothache ; wounds, rheumatism, anorexia, flatulence, colic, helminthiasis, ulcers, asthma, bronchitis, knee joint pain, gonorrhoea, indigestion, jaundice, abdominal disorders, cough, piles, malaria, wheezing, worms and sinusitis fever, liver disease, leprosy, psychopathic, ophthalmic, caries of teeth, chicken pox, children fever, constipation, hepatitis ; dermatomycosis, tinea, imbricate, scabies, eye disease ; oedema, gingivitis and parodontosis. The present paper related to tribal people gives us ethnomedicinal knowledge which will be of help in medical science to overcome different harmful diseases (9—11). In the survey area where the medical science does not progress, the people of this zones totally depend on the plant extracts as medicines in the crude form or added with other suitable mixtures.

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