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# SOME MEDICINAL PLANTS OF NORTH 24 PARGANAS DISTRICT OF WEST BENGAL (INDIA)

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**ABSTRACT**

*The district of the North 24 Parganas forms a part of the South-Western portion of the Presidency Division of West Bengal. It extends over 4090 sq. km. The head-quarter is situated at Barasat, established on December 1995. Present study deals with 65 medicinal plants of this district. Their uses in field observation and from authentic literature and their abundance have been incorporated in details. Present study recorded that all together 65 plant species with medicinal properties have been recorded and study has been carried out in detail from Nilgunj, Jagaddal, Thakurnagar, Bisharpara-Kodalia and Bamungachi of the North 24 Parganas district. All the herbarium specimens were kept in G.C. Bose Herbarium, Bangabasi College, Kolkata -700 009, West Bengal, India. The study was conducted by personal interview with the village people and local medicine men (Kabiraj and Hakim). They helped us providing some information according to their knowledge and experiences, about the medicinal uses of the local flora.The information collected by interviewing from the local medicinal men need clinical study for confirmation whether they are effective or not and conserve them scientifically in their original habitat. At the same time the rare plants like—Andrographis paniculata, Crotalaria verrucosa, Derris indica, Hemidesmus indicus, Hygrophila phlomoides, Smilax glabra, S. prolifera, Stephania japonica and Terminalia arjuna of the studied area of North 24 Parganas district need conservation and also can be recommended for plantation due to their important medicinal values.*

**KEY WORDS**

*Medicinal Plants, North 24 Parganas district, West Bengal, India.*

## Introduction

Though we are living in the age of synthetic drugs the uses of Crude drugs or Ayurvedic medicine are increasing day by day. The synthetic drugs are not only costly but also have some side effects. A vast population of our country living in the villages and they are belonging to backward classes of poor people and they are solely depending on the Ayurvedic medicine. Sometimes urbanized intelligentsia also depends and prefers Ayurvedic medicine to alleviate their ailments because only to avoid the undesirable side effects of modern synthetic drugs. Due to the unscientific random use of plant wealth, they are facing threat. Hence, for the sake of mankind it is now become necessary to survey and to conserve the medicinal plants scientifically in their original habitat.

The district is bounded on the North by Nadia district and a portion of Bangladesh (Khulna division), on the East by Bangladesh, on the South by the district of South 24 Parganas and Kolkata, and on the West by the river of Hooghly,

which proceeding from North to South, separates it from the districts of Hooghly and Howrah. It extends over 4090 sq. km. The head-quarter is situated at Barasat, established on December 1995.

**Present work:**

During this survey, all together 65 plant species with medicinal properties have been recorded and studied in detail from Nilgunj, Jagaddal, Thakurnagar, Bisharpara—Kodalia and Bamungachi of the North 24 Parganas district. All the herbarium specimens are kept in G.C. Bose Herbarium, Bangabasi College, Kolkata -700 009, West Bengal, India.

The frequency of the species in the studied area is considered as number of species present per 100 sq.mt. and they are indicated as: Abundant (more than 100 species), Common (more than 50 species but less than 100 species), Occasional (more than 25 species but less than 50 species) and Rare (less than 25 species).

**Materials and Methods:**

There is no particular record on medicinal plants of the district but Ambasta *et al* (1993), Bhattacharya *et al* (1997), Dey (1896), Hazra *et al* (1995), Kirtikar and Basu (1918), Sharma *et al* (1993), Sivarajan and Balachandran (1994), Warrier *et al* (1993) have worked on medicinal plants of India.

The study was conducted by personal interview by the first author with the village people and local medicine men (Kabiraj and Hakim). They helped us providing some information according to their knowledge and experiences, about the medicinal uses of the local flora.

**Observations and Results:**

A list of medicinal plants available from the district along with their medicinal values is provided in the following tables:

**Table I: Showing the systematic evaluation of plants, their uses and nature of distribution**

| Name of the Plant | Local name | Family | Medicinal Value | | Frequency in the area under consideration |
|---|---|---|---|---|---|
| | | | From References | Local uses | |
| **1.** *Achyranthes aspera* Linn. Sp. Pl.204.1753 | Apang | Amaranthaceae | Decoction of **herb** diuretic, used in renal dropsy. The crushed **plant** has been boiled in water and is given in pneumonia. | The **seeds** are soaked in water and the water then taken as laxative. | Abundant |
| **2.** *Adhatoda zeylanica* Medic. Hist and Commentant. Acad. Elect. Sci. Theod. Plat. 6 : 393. 1790. *Adhatoda vasica* Ness in Well. Pl. As. Rar. 3: 103.1932. | Basak | Acanthaceae | The **leaves, barks** and **young stems** are extensively used as a remedy for cold, cough, bronchitis and asthma, **Powdered leaves** used for skin affections. | One cup of **leaf extract** together with 10 gms. Taggery and 3-4 cloves boiled down to ½ cup, prescribed for common cold and cough | Common |
| **3.** *Aerva lanata* (Linn.) Juss. in Ann. Mus.Nat. Hist. Par 2:131.1808. *Achyranthes lanata* Linn. Sp. Pl. 204. 1753. | Chaya, Daya Phul | Amaranthaceae | The **plant** is diuretic, used in lithiasia. The **root** is demulcent, diuretic, useful in the treatment of headache. | One teaspoonful **plant** juice is taken with few drops of honey to check cough and same without honey taken in empty stomach to control blood sugar. | Abundant |
| **4.** *Ageratum conyzoides* Linn. Sp.Pl. 839.1753 | Uchunti | Asteraceae | Decoction or infusion of the **plant** used in diarrhoea, dysentery, colic with flatulence and other gasto-intestinal ailments. | *No local use* | Abundant |
| **5.** *Amaranthus viridis* Linn. Sp. Pl. 1405. 1753 | Notey | Amaranthaceae | The **plant** is cooling, digestible, laxative, diuretic, stomachaic, | The boiled **leaves** *and* **roots** given to children as a laxative. | Abundant |

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| | | | antipyretic, improves the appetite. | | |
| **6.** *Amischophacelus axillaris* (Linn.) Rolla Rao and Kamm in Journ. Linn. Soc. Bat. 59:306,1966. *Commelina axillaris* Linn. Sp. Pl. 42. 1753. | Baganulla Herb | Commelinaceae | **Seeds** may be used as food. | *No local use.* | Common |
| **7.** *Ammannia baccifera* Linn. Sp. Pl. ed. 2. 175. 1762 | Dadmari | Lythraceae | The **fresh leaves**, bruised and applied to part intended to be blistered. The **leaves** are applied to cure herpetic eruptions. **Herb** is reported to possess anti-typhoid and anti-tubercular properties. | **Leaf** juice is externally applied to relief the rheumatic pain. | Abundant |
| **8.** *Anagallis arvensis* Linn. Sp. Pl. 148, 1753. | Not available | Primulaceae | **Plant** used for dropsy, leprosy, hydrophobia, mania and other cerebral affections;cures ophthalmia, inflammations, sores, pain in liver and kidney. | *No local use.* | Common |
| **9.** *Andrographis paniculata* (Burm.f.) Wall ex Ness in wall. Pl. As. Ras. 3:116. 1832 | Kalmegh | Acanthaceae | Decoction used for sluggishness of liver and in jaundice. **Leaves** *and* **roots** used as a febrifuge, cholagogue and anthelmintic. | Village people are used to chew 3-5 **leaves** in empty stomach to prevent liver and stomach diseases. The expressed juice of the leaves together with cardamoms, cloves, cinnamon etc. is dried in the Sun and made into little globules, which are prescribed for infants to relief griping, | Rare |

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| | | | | irregular stools and loss of appetite. | |
| **10.** *Anisbomeles indica* (Linn.) O.Kuntze, Rev. Gen. Pl. 2: 512. 1891. *Nepeta indica* Linn. Sp. Pl. 571.1753. | Gobura | Lamiaceae | The **herb** used as an astringent carminative and tonic. The essential oil obtained from the herb is used in uterine affections. | *No local use* | Common |
| **11.** *Bacopa monnieri* (Linn.) nettstein in Engl. & Prant. Pflanzenfam. 4(36): 77.1891 (monniera). | Brahni, Brihmisak | Scrophulariaceae | The **herb** used for epilepsy, insanity and other nervous diseases. | The **herb** fried with 'ghee' and taken to improve intellect by the villagers. | Abundant |
| **12.** *Biophytum sensitivum* (Linn.) DC. Prod. 1:690 1824.*Oxalis sensitive* Linn. Sp. Pl. 434.1753. | Jhalai, Bannaranga | Oxalidaceae | **Plant ash** is mixed with lime juice and given for stomachache. Decoction of **leaves** given for diabetes and asthma. | **Plant** juice rubbed to cure muscle cramps and inflammatory tumours. | Common |
| **13.** *Boerhaavia diffusa* Linn. Sp. Pl. 3. 1753 | Punarnava | Nyctaginaceae | **Roots** considered expectorant, diurectic and laxiative, used in asthma. Mixed with dried ginger it is given in utricaria. | Half-tea spoonful **leaf** juice is given to cure Jaundice. | Common |
| **14.** *Brassica nigra* (Linn.) Koch in Rohling's Deutschl. Fl. ed. 3. IV (1833) 713 et Syn. ed. 1(1835) 59. *Sinapis nigra* Linn. Sp. Pl. ed. 1 II. 668. 1753. | Kalasarisha | Brassicaccae | **Seeds** are given with warm water as emetic in narcotic poisoning and edible as cooking oil, which is extracted from the seed. | Warm **seed** oil rubbed in the chest and back during cough and cold specially for children. | Abundant |
| **15.** *Cajanus cajan* (Linn.) Millsp. Field. Columb. Mus. Bot. 2:53. 1900. *Cytisus cajan* Linn. Sp. Pl. 739. 1753. | Arhar | Fabaceae | The **seed** is acrid, astringent to the bowels, anthelmintic, restores lost taste, cure leprosy, ulcers of mouth, tumours, bronchitis, vomiting, heat | **Leaf** juice ½ cup once daily in empty stomach is prescribed for jaundice | Abundant |

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| | | | diseases, piles, cough, biliousness (Ayurveda). | | |
| **16.** *Canscora diffusa* (Vahl.) R. Br. ex Roem. & Schult. Syst. Veg. 3:301. 1820. *Gentiana diffusa* Vahl. Symb. Bot. 3:47, 1794. | Dankuni | Gentianaceae | Fresh juice of the **plant** prescribed in insanity, epilepsy and nervous debility. | *No local use.* | Common |
| **17.** *Cardiospermum halicacabum* Linn. Sp.Pl. 366.1753. | Lataphatkari, sibjhul | Sapindaceae | **Roots** used for rheumatism, lumbago, nervous diseases. **Leaves** used as poultice in rheumatism. | *No local use.* | Common |
| **18.** *Catharanthus roseus* (Linn.) G. Don, Gen. Syst. 4:95. 1838. *Vinca rosea* Linn. Syst. Nat. ed. 10.944.1759 | Nayantara | Apocynaceae | The alkaloids of the **roots** possess hypotensive, sedative and tranquillizing properties. | Fresh **leaves** (1-2) are chewed in empty stomach to check blood sugar. | Abundant |
| **19.** *Chenopodium ambrosiodes* Linn. Sp. Pl. 219.1783. | Bethusag, Candan betu. | Chenopodiaceae | An infusion of **herb** is carminative and diaphoretic. | Juice of the **herb** used as an antibiotic against many forms of internal parasites including round worms, hooke worms and intestinal amoebae. | Common |
| **20.** *Clerodendrum viscosum* Vent. Jard. Malm. T. 25. 1803. | Bhant, Ghentu | Verbenaceae | Paste of the **roots** *and* **leaves** are employed externally for treatment of tumours and skin diseases. | **Root** juice is used as anthelmintic specially for the children. | Abundant |
| **21.** *Commelina diffusa* Burm. f. Fl. end. 18, t. 7.f. 2. 1768 | Not available | Commelinaceae | Bruised **plant** applied to boils, itches and burns. **Leaves** used for poulticing sores. | *No local use* | Abundant |
| **22.** *Corchorus aestuans* Linn. Sp. Pl. 715. 1753. | Titapat | Tiliaceae | **Seeds** used in stomachache. | *No local use* | Occasional |

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| **23.** *Crotalaria verrucosa* Linn. Sp. Pl. 715. 1753. | Basan, Jhanjhana | Fabaceae | **Leaves** cure biliousness, dyspepsia, fever, blood impurities, heart complaints, throat and mouth diseases. | *No local use* | Rare |
| **24.** *Cuscuta chinensis* Lam. Encycl. Method. II. 229. 1786. | Swarnalata | Cuscutaceae | Crushed **seeds** are used as purgative. | Crushed **herb** is applied externally against the skin itching. | Abundant |
| **25.** *Derris indica* (Lam.) Bennet in J. Bomb. Nat. Hist. SOC. 68:302. 1971 | Karonj, Karanja | Fabaceae | **Root, bark, leaf** and **fruits** are anthelmintic. Commonly **bark** is crushed with water (10 gms bark in 1 cup water) and given one teaspoonful with slight sugar twice daily to expel the worm. **Leaves** are digestive, laxative and anthelmentic and the juice is preserved in dyspepsia, leprosy and gonorrhoea. | *No local use.* | Rare |
| **26.** *Duranta repens* Linn. Sp. Pl. 637. 1753. | Duranto | Verbenaceae | **Fruits** contain an alkaloid analogus to narcotine. Mecerated fruits yield a juice which even in dilutions of 1:100 parts of water is lethal to mosquito larvae. | *No local use.* | Abundant |
| **27.** *Flacourtia indica* (Burm.f.) Merrill, Interpr. Rumph. Herb. Amb. 377. 1917. *Gmelina indica* Burm. f. Fl. Ind. 132.t. 39. f., 5.1768. | Bencli, Baichi, Birja, Katai. | Flacourtiaceae | **Fruit** used in jaundice and enlarged spleen. **Bark** is astringent and diuretic. | *No local use.* | Common |

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| **28.** *Heliopropium indicum* Linn. Sp. Pl. 130.1753. | Hatisur | Boraginaceae | Decoction of **leaf** used in fever; **Root** juice used in cough and fever. | **Plant** extract commonly used for skin diseases, wounds and ulcers. | Common |
| **29.** *Hemidesmus indicus* (Linn.) R. Br. In Aiton, Hort. Kew. ed. 2, 2:75. 1811. *Periploca indica* Linn. Sp. Pl. 211.1753. | Auantamul | Periplocaceae | Dried **roots** used in rheumatism, gravel and other urinary diseases and skin troubles. | **Root** juice is taken for dysentery (one tea spoonful with sugar in empty stomach.) | Rare |
| **30.** *Hygrophila auriculata* (Schum.) Heine, kew Bull. 16: 172, 1962. *Barleria auriculata* Schum. in Schum. & thorn. Beskr. Guin. P: 285.1827. | Kulekhara | Acanthaceae | **Leaves** useful in diarrhea, dysentery, urinary discharges, inflammations, biliousness, diseases of eye, anaemia, constipation. | The **seeds** are given for gonorrhoea. **Tender shoot** and **leaf** juice, ½ cup twice daily is prescribed in severe anaemia. | Abundant |
| **31.** *Hygrophila phlomoides* Ness in Wall. Pl. As. Ras. 3.80.1832. | Not available | Acanthaceae | **Leaves** used in poultices for boils. | *No local use.* | Rare |
| **32.** *Hydrolea zeylanica* (Linn.) Vahl. Symb. Bat. 2:46.1791. *Nama zeylanica* Linn. Sp. Pl. 226.1753. | Isha-Langulia | Hydrophylla-ceae | **Leaves** are used as antiseptic. | **Leaves** applied in form of poultices on neglected external wounds. | Occasional |
| **33.** *Ipomoca aquitica* Forsk. Fl. Aeg. Arab. 44.1775. | Kalmi | Convolvulaceae | **Roots** eaten in times of scarcity. Juice used as an emetic in cases of opium and arsenial poisoning. | **Leaves** are eaten as pot herbs. | Abundant |
| **34.** *Justicia gendarussa* Burm. F. Fl. ind. 10. 1768. | Jagat madan | Acanthaceae | **Plant** useful in bronchitis, inflammations, vaginal discharges, eye diseases and fever. | **Leaves** and **tender shoots** are diaphoretic and given in chronic rheumatism in the form of decoction by local people. Crushed **leaf** applied locally in eczema. The juice of the **fresh leaf** dropped into the ear for earache. | Common |

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| **35.** *Kleinhovia hospita* Linn. Sp. Pl. Ed. 2. 1365, 1753. | Bola | Strculiaceae | **Leaf** juice used as an eye-wash. | Decoction of **leaves** prescribed for scabies and skin eruptions. | Rare |
| **36.** *Leonurus sibricus* Linn. Sp. Pl. 584. 1753. | Raktadrone | Lamiaceae | **Leaves** and **roots** febrifuge. **Leaf** extract effective for uterus contraction. | **Root** extract is given to use menstrual disorder. | Abundant |
| **37.** *Leucas lavendulaefolia* J.E. Smith in Ress. Cyclop. 20:n. 2. 1819. *L. linifolia* (Roth) spreng. Syst. 2: 743.1825. | Sweatadrone, Halkasa | Lamiaceae | **Leaves** are useful in piles and sore eyes. Decoction of **leaves** used as a sedative, stomachic and vermifuge. Poultice of **fresh leaves** applied to old sores and dermatosis. | **Leaf** juice is mixed with honey (few drops) and used in fever for children. | Abundant |
| **38.** *Lippia javanica* (Burm.f.)Spreng.Syst. 2: 752. 1825. *Verbena javanica* Burm. f. Fl. Ind. 12:t. 6, f. 2. 1768. *Lippia geminate* H.B.K. Nov.Gen.et. Sp.2:266. 1818. | Not available | Verbenaceae | **Leaves** used in stomachache and nervous diseases. | *No local use.* | Occasional |
| **39.** *Ludwigia adscendens* (Linn.) Hara in J. Jap. Bat. 28:290. 1953. *Jussiaea adscendens* Linn. Mant. Pl. 1:69.1767. *J. repens* Linn. Sp. Pl. 388. 1753 (*non-ludwigia repens* Forst 1771). | Kesara-dam | Onagraceac | **Plant** is used for ulcers and skin complaints. | *No local use.* | Common |
| **40.** *Ludwigia perennis* Linn. Sp. Pl. 519. 1753. | Bonlong | Onagsaceac | **Plant** is boiled in oil which is applied to the body externally to bring down fever. | *No local use.* | Abundant |
| **41.** *Mimosa pudica* Linn. Sp. Pl. 518.1753. | Lajjabati | Mimosaceae | Decoction of **root** together with few drops of honey is prescribed for acute belly pain and also for gravel. | *No local use.* | Common |

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| **42.** *Monochoria hastata* (Linn.) Solans in DC. Mon. Phan. 4:523.1883. *Pontederia hastata* Linn. Sp. Pl. 288. 1753. | Not available | Pontederiaceae | Juice of the **leaves** applied to boils. **Rhizomes** are pounded with charcoal and used for scurf. | *No local use.* | Abundant |
| **43.** *Oxalis corniculata* Linn. Sp. Pl. 435.1753. | Amrul | Oxalidaceae | In slight forms of chronic dysentery the **leaves** boiled in milk and given twice or thrice a day prove very useful; cure scurving. | Juice of the **leaves** is commonly used to check sore lips and also to cure skin disease, dysentery and diarrhoea. | Abundant |
| **44.** *Pedilanthus tithymaloides* (Linn.) Poit. Ann. Mus. Hist. Nat. par. 19:390. t. 19, 1812. *Euphorbia tithymaloides* Linn. Sp. Pl. 453.1753. | Belati-sij, Rangchita | Euphorbiaceae | **Root** powerful emetic. | Latex of **root** applied to leucoderma patches. | Abundant |
| **45.** *Phyllanthus fraternus* Webster. Contrib.. Gray Herb. 176:53. 1955. | Bhui amla | Enphorbianceac | Fresh **roots** given in jaundice and also used as a galactagogue. Latex applied to sores. Used for stomach troubles such as diarrhoea, dysentery, dyspepsia and colic. | *No local use.* | Abundant |
| **46.** *Physalis minima* Linn. Sp. Pl. 183. 1753. | Bantepariya, Bontepari | Solanaceae | **Fruit** considered as tonic, diuretic and purgative. | **Leaf** juice together with mustard oil dropped into the ear to check earache. | Abundant |
| **47.** *Pithecellobium dulce* (Roxb.) Benth. in Hook, Long. Journ. Bot. 3 : 199. 1844. *Mimosa dulcis* Roxb. Pl. Cor. 1:67: t.99. 1795. *Inga dulcis* (Roxb.) Willd. Sp. Pl. 4:1105. 1806. | Dekhani babul | Mimosaceae | **Bark** is used as a febrifuge. | **Bark** soaked in water for several hours and the water is taken as a remedy of fever. | Common |
| **48.** *Polygonum barbatum* Linn. Sp. Pl. 362. 1753. | Bekh-unjubaz | Polygonaceae | Decoction of **leaves** and **shoots** used as a remedy for ulcer. | *No local use.* | Occasional |

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| **49.** *Psidium guajava* Linn. Sp. Pl. 470. 1753. | Peyasa | Myrtaceae | **Leaves** used as astringent for bowel troubles. Decoction of **bark** given in diarrhoea. | **Tender leaves** often chewed with salt to check gum bleeding and other tooth troubles. | Not very common in the studied area but commonly planted in the other area of the district. |
| **50.** *Rumex vesicarius* Linn. Sp. Pl. 336. 1753. | Chak, chuk, chuka, Chukapalang. | Polygonance | The **herb** is useful in heart troubles, pain, tumours, alcoholism, bronchitis, piles, vomiting. **Leaves** cooling, diuretic. **Roasted seeds** used in dysentery. | *No local use.* | Abundant |
| **51.** *Rungia pectinata* (Linn.) Ness in DC Prods. 11:469. 1847. *Justicia pectinata* Linn. Amoen. Aced. 4:299.1759. *Rungia parviflora* (Retz.) Ness Var. *pectinata* (Linn.) C.B. Clarke in FBI 4:550.1885. | Pindi | Acanthaceae | **Fresh leaf** juice prescribed for the children suffering from small-pox, one tablespoonful twice daily. | Few drops of **root** extract together with honey is prescribed for fever, especially for children; | Abundant |
| **52.** *Sida cordata* (Burm.f.) Borss., Blumea 14:182. 1966. *Melochia cordata* Burm. f. Fl. Ind. 1768. | Besela, Junka | Malvaceae | **Leaves** applied to cuts and bruises | **Leaf** juice is given to the pregnant women when they suffer from diarrhoea. | Common |
| **53.** *Sida rlombifola* Linn. Sp. Pl. 684. 1753. | Lalberela | Malvaceae | **Leaf** Juice used in rheumatism and tuberculosis. **Roots** and **leaves** contain ephedrine. | An infusion of **root** is given in dysentery. | Abundant |
| **54.** *Smilax glabra* Roxb. Fl. Ind. III. 792.1832. | Harina-shulke-china. | Smilacaceae | Decoction of **wood** used for venereal diseases. | A decoction of **fresh root** used to cure sores and venereal complaints. | Rare |

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| **55.** *Smilax prolifera* Roxb. Fl. Ind. II.795, 1832. | Not available | Smilacaceae | **Roots** ground with old molasses or with coagulated cow's milk, is mixed with water and drink as a remedy against blood-mixed stools in dysentery and against 'aradaud', a urinary complaint in which the urine is dark and reddish. | Commonly the **root** is used for urinal diseases. | Rare |
| **56.** *Solanum indicum* Linn. Sp. Pl. 187.1753. | Byakura, gurkamai | Solanaceae | **Fruits** laxative and digestive. **Roots** useful in cough and catarrhal affections. | **Leaves** and **fruits** rubbed up with sugar and used as an external application to itch. | Occasional |
| **57.** *Solanum nigram* Linn. Sp. Pl. 186, 1753. | Gurkamai, Kakmachi | Solanaceae | **Herb** used as diuretic and laxative. **Leaves** used as an adulterant of belladona. | **Leaves** and **tender shoots** are boiled and eaten like spinach. Freshly prepared extract of **herb** is used as a remedy of cirrhosis of liver. | Abundant |
| **58.** *Sonchus arvensis* Linn. Sp. Pl. 793, 1753. | Banpalang | Asteraceeae | Juice of **roots** used in cough, bronchitis and asthma. | Latex from **root** often used to cure eye irritation. | Common |
| **59.** *Spermacoce articularis* Linn. f. Suppl. Pl. 119. 1782. | Madana-banta-kadu | Rubiaceae | The **seeds** are crushed and mixed with **leaf** juice of *Andrographis paniculata* and used against dysentery. | The vapour of the **herbs** is inhaled to kill the tooth worms. | Common |
| **60.** *Spilanthes paniculata* Wall. ex De. Prodr. 5:625.1836 | Marhati tiga | Asteraccae | Decoction of **herb** used in scabies and psoriasis. | Pungent **flowers** chewed to relief in throat affections and paralysis of tongue. Also, used for stammering in children. | Abundant |
| **61.** *Stephania japonica* (Thunb.) Miers., Ann. Ma. Nat. Hist. Ser. 3, 18:14.1866. *Menispema japonicum* Thunb., Fl. Jap. 193-1784. | Agandnemuka, Akanadi, Nimuka. | Menispermaceae | Bitter **root** used in many Ayurvedic preparations. | Few drops of decoction of **root** with a cup of water is prescribed in fever for children and also used in urinary troubles. | Rare |

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| **62.** *Streblus asper* Lour. Fl. Cochinch. 2:615.1790. | Sheora | Moraceae | **Bark** extract is prescribed for diarrhoea and dysentery. **Seeds** used in piles and diarrhoea. Externally the paste applied in leucoderma. | **Root** extract is given in ulcers. | Common |
| **63.** *Terminalia arjuna* (Roxb.) Wt. & Arn. Prodr. 314. 1834. *Pentaptera arjuna* Roxb. Fl. Ind. 2:438. 1824. | Arjun | Combretaccae | The **bark** is antidysentric, diuretic, gives relief in symptomatic hypertension. | **Dried bark powder** eaten with rice in lunch to check the high blood pressure. **Bark** extract is used for tooth-ache. | Rare |
| **64.** *Tridax procumbens* Linn. Sp. Pl. 900. 1753. | Tridakshya | Asteraceae | **Leaf** juice mixed with equal volume of the juice of *Centella asiatica* and taken twice daily (teaspoonful) for diarrhea. | **Leaf** juice given for the treatment of dysentery and diarrhoea. | Abundant. |
| **65.** *Vernonia cinerea* (Linn.) Less in Linnaea 4:291. 1829. *Conyza cinerea* Linn. Sp. Pl. 862. 1753. | Kukursonka, Kukshim. | Asteraceae | **Plant** possesses strong diaphoretic properties and used to produce perspiration in fever. | **Plant** juice commonly used to cure asthma. | Abundant. |

The above mentioned 65 plants may be categorized in the following way:

**Table II: Different Parts of Plants Used for Medicinal Purposes**

| Name of the Parts | Number of Plants |
|---|---|
| Whole Plant | 22 |
| Leaf | 35 |
| Roots and Rhizomes | 23 |
| Stem and Bark | 11 |
| Flowers | 01 |
| Fruits | 05 |
| Seeds | 10 |

It is evident from the field survey that out of 65 plants, most of the cases leaves (35) are used followed by roots and rhizomes (23), whole plant (22), stem and bark (11), seeds (10) and fruits are used only in five cases. Only one case flowers are used.

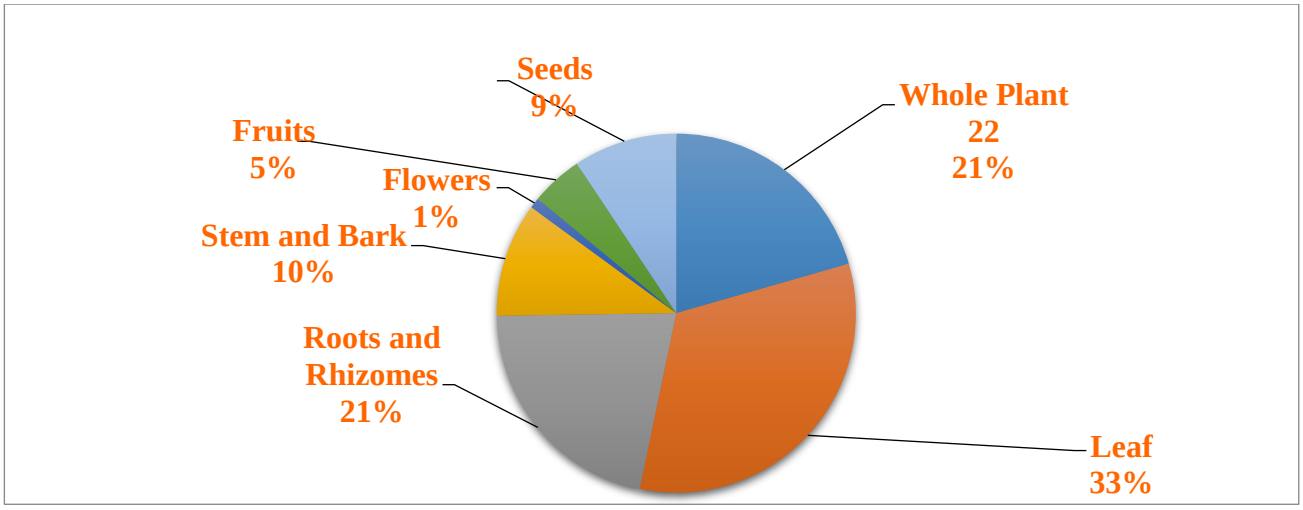


**Figure I: Different Parts of Plants Used for Medicinal Purposes**

Maximum percentage of leafy parts is used for medicinal purposes and minimum percentage of flower is used for this purposes.

**Table III: Plants used in different Diseases**

| Name of the Disease / Affected Organ | Number of Plants |
|---|---|
| Stomach Trouble | 08 |
| Liver Trouble | 01 |
| Renal Problem | 01 |
| Nervous Problem | 03 |
| Heart Problem | 04 |
| Anaemia | 01 |
| Rheumatism | 01 |
| Uterine Trouble | 05 |
| Jaundice | 01 |
| Cold, Cough, Fever & Asthma | 10 |
| Constipation | 02 |
| Skin Diseases | 13 |
| Liver Trouble | 01 |
| Eye Problem | 03 |
| Ear Problem | 02 |
| Tooth Problem | 02 |
| Tongue & Throat Problem | 01 |
| Various Types of Diseases | 15 |

This work suggests that maximum number of plants (13) are used for dermal diseases. Next prevalent diseases are cold, cough, fever and asthma etc which are treated by 10 plant species and the next prevalent disease is stomach trouble, can be cured by eight different plant species. Other diseases can be prevented by one to four number of plant species.

**Table IV: Number of plants distributed in different Families.**

| Name of the Family | Number of Plants |
|---|---|
| Amaranthaceae | 03 |
| Acanthaceae | 06 |
| Asteraceae | 05 |
| Commelinaceae | 02 |
| Lythraceae | 01 |
| Primulaceae | 01 |
| Lamiaceae | 03 |
| Scrophulariaceae | 01 |
| Oxalidaceae | 02 |
| Nyctaginaceae | 01 |
| Brassicaceae | 01 |
| Fabaceae | 03 |
| Gentianaceae | 01 |
| Sapindaceae | 01 |
| Apocynaceae | 01 |
| Chenopodiaceae | 01 |
| Verbenaceae | 03 |
| Tiliaceae | 01 |
| Cuscutaceae | 01 |
| Flacourtiaceae | 01 |
| Boraginaceae | 01 |
| Periplocaceae | 01 |
| Hydrophyllaceae | 01 |
| Convolvulaceae | 01 |
| Sterculiaceae | 01 |
| Onagraceae | 02 |
| Mimosaceae | 02 |
| Pontederiaceae | 01 |
| Euphorbiaceae | 02 |
| Solanaceae | 03 |
| Polygonaceae | 02 |
| Myrtaceae | 01 |
| Malvaceae | 02 |
| Smilacaceae | 02 |
| Rubiaceae | 01 |
| Menispermaceae | 01 |
| Moraceae | 01 |
| Combretaceae | 01 |

Surveyed 65 angiospermic plants are distributed in 38 families. Heights number of plants (6) are recorded from Acanthaceae, followed by Asteraceae with 5 plants and 5 families, Amaranthaceae, Lamiaceae, Fabaceae, Verbenaceae and Solanaceae, each of them has 3 plants species. Remaining 8 families with 2 plants each and 23 families with 1 plant each are used to treat the diseases by the people of North 24 Parganas district of West Bengal.

**Discussion and Conclusion:**

The information collected by interviewing the local medicinal men need clinical study for confirmation whether they are effective or not and conserve them

scientifically in their original habitat. At the same time the rare plants like—*Andrographis paniculata, Crotalaria verrucosa, Derris indica, Hemidesmus indicus, Hygrophila phlomoides, Smilax glabra, S. prolifera, Stephania japonica* and *Terminalia arjuna* of the studied area of North 24 Parganas district need conservation and also plantation for their important medicinal values.

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