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RESEARCH ARTICLE

Medicinal Plants Used by the Local People at Phulbari Upazila of Kurigram District, Bangladesh

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ABSTRACT

This study presents findings based on research of medicinally significant plants discovered in Phulbari upazila of Kurigram district, Bangladesh. The data presented in this work was gathered from field surveys conducted in the study area. The field surveys were conducted in July 2022 to March 2024. The documenting of medicinal plants was facilitated by herbal practitioners, informed individuals, and locals who benefit from the medicinal uses of these plants. A total of 67 informants (46 male and 21 female) between 21 and 70 years of age were interviewed. A total of 71 plant species under 66 genera and 42 families have been documented which are used for the treatment of 67 categories diseases. Out of recorded diseases, cough, skin disease, wound, fever, dysentery, diarrhoea, stomach-ache, constipation, diabetes, eczema, skin disease, toothache, worm, wound, sex problems, asthma and bronchitis was dominant diseases in the study area. This research discusses related medicinal plants, their botanical names, family names, how plants are used to treat the illness, and administration methods. The current investigation will be useful in identifying the medicinal plant species for future research and also beneficial to evolve the herbal medicines.

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Introduction

For thousands of years, the majority of people on the planet have used traditional medicine. Based on information gathered from the World Health Organization (WHO), 80% of people in underdeveloped nations receive their primary medical care from traditionally used medicinal herbs (WHO, 2007).

It is unknown who was the first individual to use a plant for medicine. Many cultures developed by trial and error, gathering information passed down through generations. Men are those who have a strong interest in the therapeutic characteristics of plants and have mastered the art of using their newly acquired knowledge to get a foothold in society. Plants were given to gods and higher

forces because of their medicinal virtues. As a result, priests became engaged, and the medicine man began to be related with particular religious doctrines. A wide range of definitions for medicinal plants have been presented.

The word "medicinal plant" refers to a group of plants used in herbal therapy ("herbology or herbal medicine"). It is the practice of employing plants for medical purposes, as well as the research into such practices. A wide range of definitions for medicinal plants have been proposed. "A medicinal plant is those plant which contains chemicals that could be utilized for therapy, and were blue prints for cytotoxic drugs" as defined by the World Health Organization (WHO, 1991).

A plant is said to be a "medicinal plant" if it has the potential to be employed as a pharmaceutical, a healing agent, is a primary component of a pharmaceutical combination. A group of plants known as medicinal plants are those that possess unique properties or traits that turn them into medications or other therapeutic compounds with medical applications. In the past, plants have satisfied every need that humans have had. It meets all of man's wants, including those for flavor, smell, food, clothes, and shelter. The basis of a traditional medical system based on plants led to the invention of several significant medicines that are still used today. The benefits of herbal therapy, which provides a greater variety of therapies, have been recognized by numerous prehistoric societies. Since the beginning of time, people have utilized plants to treat various ailments. There is a wealth of information regarding the usage of some plant parts, such leaves, stems, and roots, for therapeutic purposes, even though man's dependence on plants has not decreased. Decoctions prepared from these herbs are used to treat urinary issues, blood sugar, asthma, stroke, stomach pain, blood pressure, diarrhea, and sores (Balick, 1994).

In impoverished countries, almost 80% of the population still receives their medical care mostly from traditional medicine. Medicinal herbs have been used for centuries to cure illness all across the world, and they are the foundation for many modern drugs. However, the understanding of medicinal plants is rapidly declining due to the impact of Western civilization. This is leading to a decline in the number of generations that continue to use plants in traditional medicine. This has generated curiosity throughout the world. Seventy percent of people in numerous countries manage a variety of diseases with traditional medicine, according to the WHO (WHO, 1991). In developing countries, where access to allopathic medicine may be limited due to high costs and potential side effects, a significant portion of the population relies on plant-based resources for healthcare. Herbal medicines, known for their relatively fewer side effects and affordability, have become increasingly popular as alternative treatments. This resurgence of interest in traditional medicine, particularly plant-based therapies, has garnered worldwide recognition in recent decades. It is estimated that traditional medicine, predominantly consisting of plant medications, is utilized by 60% of the global population and as much as 80% of those living in impoverished nations. Consequently, there is a growing imperative to document traditional medicinal and aromatic plant knowledge, as this invaluable heritage is transmitted orally from one generation to the next, facing the risk of extinction. The evidence of civilization's reliance on herbal remedies can be traced back to the earliest recorded histories of ancient cultures spanning continents such as Africa, China, Egypt, and the Indus valley.

The documentation of traditional knowledge, especially concerning the therapeutic uses of plants among specific populations, has led to the creation of numerous impactful modern medications. However, there is a prevailing concern that traditional medicinal plant knowledge is at risk of extinction due to the rapid pace of modernization. Therefore, there is an urgent need for comprehensive research efforts aimed at documenting the usage of medicinal plants and implementing conservation measures.

Similar research was carried out in Bangladesh by Anisuzzaman et al., (2007), Afrin & Rahman (2021), Choudhury & Rahmatullah (2012), Debnath & Rahman (2017), Easmin et al., (2021), Faria et al., (2021), Faruque & Uddin (2014), Islam et al., (2019), Islam & Rahman (2023), Islam & Rahman (2016, 2017), Islam & Rahman (2018), Ismail & Rahman (2016), Jamila & Rahman (2016), Jamila et al., (2016), Khatun & Rahman (2018, 2019, 2021), Kona & Rahman (2015, 2016), Keya & Rahman (2017), Khatun et al., (2022), Lipi & Rahman (2017), Mojumdar & Rahman (2018), Nahar & Rahman (2016), Nahar et al., (2016), Rahman et al., (2008, 2010, 2012, 2013, 2014, 2015), Rahman & Khatun (2018), Rahman & Rahman (2014), Zahra & Rahman (2018), Yusuf et al., (2006), Yasmin & Rahman (2017), Uddin et al., (2014, 2015, 2019), Uddin & Hassan (2014), Sultana & Rahman (2016, 2017), Roy & Rahman (2016), Roy et al., (2016), Rahman & Sarker (2016), Rahman & Jamila (2015), Rahman & Asha (2021), Rahman & Khatun (2020), Rahman & Zaman (2015), Rahman & Keya (2015), Rahman & Debnath (2014, 2015), Rahman & Sarker (2015), Rahman & Parvin (2014), Rahman & Khanom (2013), Rahman & Rojoni Gondha (2014), Rahman & Gulshana (2014), Rahman & Akter (2013) and Rahman (2013, 2014, 2015, 2021). So far the available information but no such medicinal plant survey and documentation research were found of Phulbari upazila of Kurigram, Bangladesh.

Materials and Method

The field surveys were conducted in July 2022 to March 2024 in several villages of Phulbari Upazila of Kurigram district, Bangladesh to collect information on the medicinal uses of different plant species. A total of 71 plant species under 50 genera and 37 families have been documented which are used for the treatment of 67 categories diseases. Medicinal information was obtained through semi-structured interviews with knowledgeable traditional healers. A total of 67 informants (46 male and 21 female) between 21 and 70 years of age were interviewed method (Alexiades, 1996). Plant parts with either flowers or fruits were collected using traditional herbarium techniques to make voucher specimens for documentation and voucher specimens have been preserved at Herbarium of Rajshahi University.

Collected specimens have been examined, studied and identified. Identifications have been confirmed by consulting standard kinds of literature like Ahmed et al., (2009), Hooker (1877), Prain (1903). Nomenclature has been updated following recent literature Pasha & Uddin (2013) and Huq (1986).

Results

A study on the traditional medicinal plants used by the locals in Phulbari Upazila of Kurigram District, Bangladesh, was carried out between July 2022 and March 2024. 71 plant species in all, grouped into 66 genera and 42 families, were found (Table 1). In contrast to Liliopsida (Monocotyledones), which contains seven families, ten genus, and eleven species, Magnoliopsida (Dicotyledones) has 35 families, 56 genus, and 59 species. From 42 different families, there are 35 herbs, 14 trees, 15 shrubs, and 6 climbers. Within each family, there are variations in the abundance of angiosperm species. The families Apocynaceae and Fabaceae contain four species. The Asteraceae family has six species. Each of the families Liliaceae, Euphobiaceae, Combretaceae, and Amarantheceae contains three species.

The families Acanthaceae, Apiaceae, Cucurbitaceae, Lamiaceae, Mimosaceae, Myrtaceae, Poaceae, Rutaceae, Verbenaceae, and Zingiberaceae are each represented by two species. Each of the following families: Araceae, Arecaceae, Asclepiadaceae, Bombacaceae, Boraginaceae, and Brassicaceae has one species. The families Bromoliaceae, Convulvulaceae, Costaceae, Crassulaceae, Cuscutaceae, Cyperaceae, Gentianaceae, Lythraceae, Malvaceae, Meliaceae, Menispermaceae, Moraceae, Moringaceae, Musaceae, Nyctaginaceae, Oxalidaceae, Papaviraceae, Piperaceae, Polygonaceae, Ranunculaceae, Solanaceae, Sterculaceae, and Vitaceae families. Figure 1 and Table 2 illustrates the plant habit. For every species, records include the following: collection number, date of collection,

name of the householder, age of the dwelling holder, scientific name, local name, English name, family name, brief taxonomic explanation, habit, habitat, abundance, ailments, treatment method, and part(s) used. There are also images of every species accessible. Out of the recorded medicinal species, 5.63% were very common followed by 57.75% were common, 25.35% were frequent and 11.27% were rare in the research area (Table 6; Figure 5).

Table 1. Investigated medicinal plants used by the local people of Phulbari upazila of Kurigram district, Bangladesh

Scientific name, Family name and Local name	Used parts	Ailments	Mode of administration
Azadirachta indica (Meliaceae) Neem	Leaf	(a) Chicken pox (b) Jaundice (c) Pyorrhea (d) Skin disease	(a) While taking a bath with warm water, leave the paste in place for chicken pox. (b) Jaundice can be treated with leaf juice. (c) A leaf infusion used as a gargle for pyorrhea and sore throat. (c) Use a paste diluted with warm water to treat wounds while taking a bath. (d) Leaf paste is used as skin diseases.
Argemone Mexicana (Papaveraceae) Sheyalkata	Root Latex	(a) Skin cracks (b) Jaundice (c) Tumors, cancer (d) Malarial fever	(a) Latex is utilized for skin fissures, and root paste is helpful for skin diseases. (b) Latex is used to cure jaundice. (c) Cancer and tumors are treated with latex. (d) Use a 1-2 gram root infusion made with betel leaves twice a day for three days to treat malarial fever.
Andrographis paniculata (Acanthaceae) Kalomegh	Leaf	(a) Headache, diarrhea, cholera, fever (b)Lung infection (c) Leprosy (d)Liver disorder	(a) Leaf juice: used for fevers, headaches, cholera, and diarrhea. (b) Lung infections can be treated by boiling leaves in water and using the resulting liquid. (c) Leaf paste is used topically or to the diseased area till the leprosy takes its course. (d) Drinking water mixed with the juice of macerated leaves two to three times a day is used to treat liver illness.
Achyranthes aspera (Amaranthaceae) Apang	Stem Leaf Root	(a) Jaundice (b) Tonsillitis (c) Traumatic injury (d)Insect bite (e)Urination problem (f)Premature delivery	(a) *Cajanus cajan* leaf paste, mehendi, and an apang root infusion with molasses have been given orally once a day to cure jaundice. For tonsillitis, (b) Filter leaf juice is administered. (c) A hot water extract of the root is administered orally to treat severe injuries (d) Crushed young leaves are used to venomous insect bite sites and snake bite sites. (e)Urine incontinence treatment with a 30–50 gm decoction given twice a day. It's also utilized to make more urination. (f) A whole dried plant fastened around the expectant woman's waist to avert an early delivery.
Adhatoda vasica (Acanthaceae) Basak	Whole plan specially Leaf	(a) Cough, Fever (b)Bleeding piles	(a) Leaf juice is the primary treatment for fever and cough. (b) Plant extract is applied to bleeding piles.
Amaranthus viridis (Amaranthaceae) Dukhkhura	Whole plan	(a) Acidity (b) Leprosy (c) Immunity	(a) To test for acidity, boil and break leaves and roots. (b) The plant, taken once daily for two to three weeks, is a leprosy cure. (c) It has been reported that plants

			boost immunity and general health.
Areca catechu (Arecaceae) Supari	Seed Root	(a) Taeniasis (b) Dyspepsia (c) Blood Dysentery (d) Toothache (e)Sore	(a) A concentrated, cooked, and crushed seed extract taken orally twice a day for three days. (b) For dyspepsia, two spoons of juvenile fruit juice can be taken daily. (c) To avoid bleeding dysentery, crush four grams of young seeds, boil, filter, and take the jelly-like concoction twice a day. (d) A toothache can be effectively treated with ashes prepared from a similar ratio of dry nut powder and root powder. (e) Applying powdered dry fruit to the area that is painful.
Acacia nilotica (Mimosaceae) Babla	Bark, Leaf	(a) Bronchitis (b) Dysentery (c) Leucoderma	(a) It is true that oral bark concentrates can treat bronchitis. (b) Dysentery can also be treated with capsules. (c) Leucoderma can be treated with leaf extraction.
Acalypha indica (Euphorbiaceae) Muktajhuri	Leaf	(a) Ringworm (b) Snake bite (c)Child constipation	(a) Children are advised to use lime-infused leaf paste to treat ringworm. (b) To treat snake bites, a paste prepared from the juvenile portions is applied to the affected area. (c) A herb that helps kids with constipation.
Abroma augusta (Sterculiaceae) Ulotkambol	Petiole Seed Leaf	(a) Weakness (b) Stomach pain (c) Leucorrhoea	(a) Petiole pulp can be used to alleviate weakness by soaking the affected area all night. (b) Water mixed with crushed seeds, taken twice day to relieve stomach ache. (c) To prevent Leucorrhoea for two days, petiole pulp and leaf decoction are administered every day with crushed pepper powder.
Allium cepa (Liliaceae) Piaj	Bulb	(a) Cold (b) Cough (c) Headache (d) Snake bite (e)Hair treatment	(a,b)Warm bulb juice and *Brassica napus* oil are applied to the body as a whole to alleviate common colds and coughs. (c) Apply warm bulb juice mixed with olive oil on the temples to ease headaches. (d) Juice is administered to the snakebite wound. (e) Treating hair loss with juice.
Allium sativum (Liliaceae) Rasun	Bulb	(a) Cough, Fever (b) Scabies and Eczema (c) Blood Pressure	(a)The pulp or juice of the bulbs has been used to treat fever and coughs. (b) Juice extract or pulp has been used to stop skin conditions including scabies and eczema as well as hair graying. (c) The bulb is used in conjunction with heated rice to alleviate hypertension.
Aegle marmelos (Rutaceae) Bel	Fruit Root	(a) Stomachache (b) Constipation (c) Diarrhea (d)Heart disorder	(a) Young fruit pieces have been utilized as a remedy for stomachaches. (b) A remedy for constipation is ripe fruit juice. (c) To cure diarrhea, mix 0.5 gm of root extract with 3 teaspoons of milk and sugar. (d) For heart problems, use 4 grams of fresh root paste twice a day.
Amaranthus spinosus (Amaranthaceae) Katakhura	Whole plant	(a) Toothache (b) Dysentery (c)Burning wounds	(a) A mouthwash that relieves toothaches made from plant extract. (b) Leaf juice, used to treat diarrhea. (c) Paste made from leaves helps soothe burn injuries.
Aloe barbadensis	Leaf	(a) Paralysis	(a) Boiling leaf decoction is used to treat paralysis. (b)

(Liliaceae) Ghritakumari		(b)Viral Jaundice (c) Weakness of body (d)Skin treatment (e)Hair treatment	Leaf juice administered orally twice daily for three days in order to treat viral jaundice. (c) Juice consumed with sugar to treat weakness in the body. (d) Leaf paste applied topically. (e) Leaf juice, which is used to make hair shiny and silky as well as a fall remedy.
Brassica napus (Brassicaceae) Sorisha	Seed	(a) Hair treatment (b) Insomnia (c) Skin crack (d) Gout (e)Cough and Neuralgic	(a) The hair is treated with a little heated seed oil. It gives hair luster and strength. (b) Applying seed oil to the scalp to promote restful sleep. (c) To avoid skin fissures, seed oil is administered topically. (d) Mustard plaster is used to treat gout. (e) A small amount of heated oil is used to cure neuralgia and cough.
Bombax ceiba (Bombacaceae) Shimul	Gum Root	(a) Burning sensation (b) Male weakness (c) Rheumatism	(a) Gum paste is applied to the body to relieve burning sensations. (b) A tender root infusion made with hot water is administered to men who exhibit sexual weakness. (c) Root bark is ground and taken orally to treat rheumatism.
Boerhaavia diffusa (Nyctaginaceae) Punarnava	Root Leaf	(a) Diuretic (b) Asthma (c) Insomnia	(a) Root paste is administered orally twice day as a diuretic. (b) a little quantity of an asthma treatment prepared from extracts of roots and leaves. (c) The application of tender leaf paste twice daily to cure sleeplessness.
Centella asiatica (Apiaceae) Thankuni	Whole plant	(a) Dysentery (b) Stomach pain (c) Tuberculosis	For diarrhea and indigestion-related stomach pain, combine plant paste (a), (b) with steaming rice. (d) Drinking plant juice twice daily for a period of two days as a treatment for TB.
Calotropis procera (Asclepiadaceae) Akando	Leaf	(a) Arthritis (b) Paralyses (c) Rheumatism	(a) Using Brassica napus oil and a pinch of salt, warm the leaves over a flame and rub the affected area.(b) Applying hot leaf paste paralyzes the afflicted area. (c) Mustered oil and gums are given every night to treat rheumatism.
Carissa carandus (Apocynaceae) Koromcha	Fruit Root bark	(a) Diabetes (b) Anti-helminthic and wound healing	(a) Ripe fruit and root bark are administered orally to manage diabetes. (b) A decoction of root bark given orally to treat wounds and as an anthelminthic.
Citrus aurantifolia (Rutaceae) Lebu	Fruit	(a) Catarrhal fever (b) Increase digestive power and appetite (c) Skin irritation and nausea (d) Balance diet	(a) Fruit juice can help treat catarrhal fever, as can honey and warm water. (b) Drinking lemonade or rice with it helps stimulate the appetite and digestive system. (c) Fruits are used orally to treat sickness and skin conditions. (d) On an empty stomach, drink lemon juice and warm water every morning.
Cissus quadrangularis (Vitaceae) Harjora	Whole plant	(a) Scurvy and irregular menstruation (b) Asthma (c) Indigestion (d) Piles (e) Broken limbs	(a) Menstrual disorders and scurvy are treated with juice. (b) Patients with asthma ingest stem paste. For stomach ache, boiling stem in lime water is helpful. (c) Leaf juice used orally in combination with water to relieve dyspepsia. (d) To promote pile recovery, leaf juice is ingested orally. (e) Plaster is made from stems, roots, and leaves and

			put to shattered limbs
Catharanthus roseus (Apocynaceae) Nayantara	Whole plant	(a) Child Leukemia (b) Anti-Tumor and Anti-Cancer (c) Diabetes and Blood pressure	(a) Plant juice, which lowers the risk of leukemia in children. (b) Alkaloids found in leaves and stems have anti-tumor and anti-cancer properties. (c) leaves, which are used to lower blood pressure and diabetes.
Clerodendrum viscosum (Verbenaceae) Bhat	Leaf Root	(a) Tumors (b) Asthma (c) Skin problem (d) Hair treatment (e)Anti helminthic	(a), (b), and (c) The leaves and roots are used to treat specific skin conditions, cancers, and asthma. (d) Leaf paste applied to the scalp, sometimes leaving it on for two weeks as a hair treatment. (e) Juice from young leaves contains anti-helminthic qualities.
Cajanus cajan (Fabaceae) Arhar	Leaf Seed	(a) Piles (b) Jaundice (c) Pneumonia (d) Mother milk secretion	(a) Mouth infections and piles are treated with leaves. (b,c) Leaf juice alleviates jaundice and pneumonia and acts as a laxative. (d) Seeds damage the intestines easily. To extract mother milk, utilize decoction of leaves and seeds.
Coccinia grandis (Cucurbitaceae) Telakucha	Leaf Fruit	(a) diabetes (b) Hypertension (c) Fever and vomiting (d)Insomnia	(a) A remedy for lowering blood sugar levels in diabetics is to use leaves and fruits. (b) Drink leaf juice first thing in the morning for seven days to bring hypertension back to normal. (c) The juice of crushed leaves mixed with water is used to treat fever and vomiting. (d) An insomnia treatment paste prepared from cooked leaves.
Clitoria ternetea (Fabaceae) Oporajita	Root Leaf	(a) Throat pain (b) Swellings (c)Tuberculosis glands (d) Headache	(a) An external application of leaf paste is used to relieve throat soreness. (b) An external leaf paste is applied to relieve edema. (c) The root is taken orally to treat tuberculosis glands. (d) Headaches can be treated externally with a leaf paste.
Colocasia esculenta (Araceae) Kochu	Leaf, Petiole	(a) Stop bleeding (b) Tumors (c) Cancer	(a) Petiole juice, which is used to halt bleeding. In athlete's foot, it functions as a stimulant as well. (b), (c) Leaf juice is used to cure warts, polyps, nasal cancer, and tumors.
Coriandrum sativum (Apiaceae) Dhone	Seed Whole plant	(a) Asthma (b) Cold (c) Fever	(a)For three weeks, a plant extract was used orally to treat asthma. (b) Sneeze remedy composed of milk, seeds, ginger, jeera, pepper, and spices; consumed twice day. Plant juice used to treat fever, cough, and colds (c).
Costus speciosus (Costaceae) Buno Ada	Rhizome Stem Tuber	(a) Menstrual disorder and urinary inflammation (b) Dysentery and other Digestive problem (c) Eye inflammation	(a) Rhizome: used to alleviate irritation in the urine and irregular menstruation. The paste is ingested when there is blood in the urine. (b) Chutney made from the brunt tuber, sugar, and tamarind is used to treat dysentery and other stomach issues. (c) Rhizome juice combined with sugar is used to cure eye discomfort.

Curcuma longa (Zingiberaceae) Holud	Rhizome, Flower	(a) Eczema (b) Cold fever (c) Dysentery (d) Gonorrhea (e) Gastric problem (f) Stop bleeding and wounds	(a) Rhizome is applied externally to treat eczema, scabies, itching, and abscesses. (b) Rhizome: used to treat jaundice in nursing mothers, colds, fevers, coughs, and inflammations. (c) To cure dysentery, rhizome is taken with rice, mustard oil, and salt. (d) Flower used to treat gonorrhea, ringworm, and several skin conditions. (e) Chewing rhubarb with salt helps relieve stomach issues. (f) Applying paste or powdered turmeric to the cutting area to halt bleeding and promote wound healing.
Cuscuta reflexa (Cuscutaceae) Sarnolata	Stem, Leaf	(a) Constipation (b) Liver disorder (c) Antioxidant	The juices in (a), (b), and (c) are good for liver disorders, constipation, and flatulence.
Cynodon dactylon (Poaceae) Durbaghas	Whole plant	Control bleeding	Plant juice applied topically to halt bleeding from new wounds.
Cyperus rotundus (Cyperaceae) Chapra-ghas	Tubers, Root	(a) Fever (b) Diarrhea (c) Wounds, Sores	(a) Prepare a decoction of crushed and cooked roots and use the filtrate solution to cure fever. (b) Soak 5 grams of crushed roots in water overnight and ingest twice a day. (c) Apply macerated root paste to wounds and sores.
Datura metel (Solanaceae) Dhutra	Leaf, Flower, Fruit	(a)Rheumatic swelling (b) Ear pain (c) Asthma (d) Skin disease	Leaves applied topically to relieve rheumatic joint discomfort (a). (b), (c) applied externally to treat earache and smoked to ease spasmodic asthma. (d) Leaf paste used to treat skin conditions containing neem leaf.
Dalbergia sissoo (Fabaceae) Sisso	Leaf, Bark	(a) Hemorrhage (b) Gonorrhea (c) Dysentery	(a) Dry bark is used as an astringent and hemostatic in a variety of bleeding situations. (b) A leaf decoction is advised orally to treat acute gonorrhea. (c) An oral leaf decoction used to cure dysentery.
Enhydra fluctuans (Asteraceae) Helencha	Whole plant	Fever	Prepared plant used to restore appetite and food test in patients with fever.
Euphorbia hirta (Euphorbiaceae) Dudhiya	Whole plant	(a) Dysentery (b) Bronchitis (c) Edemas	(a) A paste made from the whole plant is administered three times a day to cure diarrhea. (b) To cure bronchitis, a decoction made from the entire plant is given once daily for a week. (c) For four to five days, a grinding decoction of the whole plat is given to edema patients once a day.
Eclipta alba (Asteraceae) Kasra	Whole plant	(a) Diarrhea (b) Constipation (c) Hair treatment.	(a) To cure plant infants' diarrhea Juice with honey or sugar added, and feeding twice day until recovery. b) Drinking water with a crushed leaf can help relieve constipation. (c) Leaves used to give hair a shiny, black appearance.
Ficus racemosa (Moraceae) Dumur	Fruit Gum	(a) Dry cough (b) Asthma (c) Diabetes	(a) Fruit extracts or vegetables prepared using culinary methods for dry cough. (b) To treat asthma, consume young fruits combined with honey twice a day for a week. (c) For two

			months, take a ½ spoonful of dried raw fruit powder twice a day to manage diabetes.
Hibiscus rosa-sinensis (Malvaceae) Joba	Flower	(a) Burning injury (b) Menstrual disorders (c) Soothing and anticeptic (d) treatment of hair	(a) Mashed leaves applied on dog bites. (b) Applying an equal quantity of *Ricinus communis* oi and leaf juice to the location of an insect attack.
Heliotropium indicum (Boraginaceae) Hatisur	Leaf	(a) Dog bite (b) Insects bite	(a) Macerated leaves applied to bites of dogs. (b) Leaf juice applied to the site of an insect bite along with the equal amount of *Ricinus communis* oil.
Ipomoea aquatia (Convolvulaceae) Kolmishak	Whole plant	(a) Jaundice (b) Bronchitis (c) Leprosy (d) Fever	(a), (b) Plants are anthelminthic and emetic, useful in treating leprosy, fever, and liver disorders. (c), (d) plants are used as an oral combination of dried leaf paste and cold water for treating bronchitis and jaundice.
Kalanchoe pinnata (Crassulaceae) Pathorkuchi	Leaf	(a)Stop Bleeding (b)Blood dysentery (c)Stomachic	(a) Leaf paste works wonders to halt bleeding. (b) Leaf juice is recommended for blood dysentery once every seven days. (c) Crushed leaves combined with salt to relieve tummy aches.
Lawsonia inermis (Lythraceae) Mehedi	Leaf	(a) Skin care (b)Treatment of hair	(a) Leaf solution is a transparent and useful treatment for skin problems. (b) Leaf solution is an excellent topical treatment that promotes hair growth and leaves hair glossy and silky.
Leucas aspera (Lamiaceae) Setodron	Leaf, Root	(a) Snake-bite (b) severe rheumatism (c) Stomachic (d) Psoriasis and other skin disease (e)Anti-helminthic	(a) The bitten individuals were given oral macerated leaves. Additionally, the bitten region is treated with macerated roots. (b) Serious rheumatism can also benefit from the leaf juice. (c) Until the disease is resolved, 10 milliliters of leaf decoction combined with a small amount of rock salt are provided twice daily for stomach ache. (d) leaf paste applied topically to treat skin conditions like psoriasis. (e) A cooked plant paste that wards off worm infestation.
Lantana camara (Verbenaceae) Chotra	Leaf	(a) Aches and pains (b) Measles (c) Tetanus, Rheumatism and malaria	(a) Crushed leaves, turmeric and salt apply weekly to the wounds. (b) Leaves used in the treatment of measles. (c)The plant is emetic, and anti-phasic. Solution is often used to treat Tetanus, rheumatism, and malaria.
Moringa oliefera (Moringaceae) Sajna	Leaf, Root, Fruit, Seed	(a) Blood pressure, (b)Wormicidal, Abortion (c) Fever, Abdomen pain (d) Rheumatism, (e) Diabetes, (f) Cold-cough, (g) Anti-	(a) Whole cooked leaves consumed by hypertensive individuals. (b) A mixture of root bark and water used as an abortive and murderous paste. (c) To cure fever and stomach aches, provide a root decoction once daily for two days. (d) Seed oil is used to treat rheumatism. (f) Adding heat-dried leaves to rice on a daily basis helps manage diabetes. (f) Leaf extract used orally twice over a three-day period to cure cough and cold. (g) An anti-inflammatory leaf

		inflammatory	solution.
Mimosa pudica (Mimosaceae) Lajjaboti	Root, Leaf	(a) Diarrhea (b) Piles (c) Snake bites (d) Muscular pain	(a) A root solution is used to cure diarrhea. (b) Root solution is used twice daily for a month in order to treat piles. (c) Soak the plant's roots in raw milk for three days in the morning and consume it to treat snake bites. (d) An oral mixture of water and leaf solution for painful muscles.
Mikania micarantha (Asteraceae) Asamlota	Leaf	(a)Stop Bleeding (b)Skin care	(a) Leaf paste works incredibly well for cutting to stop bleeding right away. (b) Leaf paste is applied to the skin once a week, usually at night. It aids in preventing skin darkening on the face.
Nigella sativa (Ranunculaceae) Kalojira	Seed	(a)High blood pressure (b)asthma (c)diabetes	One notable benefit of (a) seed is that it lowers blood pressure. (b) Eating the seed every day reduced asthma symptoms. (c) Consuming seeds on a regular basis lower blood sugar.
Nerium indicum (Apocynaceae) Korobi	Leaf, Root Bark	(a) Ulcers, (b)Joint pain, (c) Insect bite, (d) Swellings	(a) Solution of root bark is being used topically to alleviate penile ulcer. (b) Mixture of root bark is applied topically to relieve joints pain. (c) Fresh leaves are soaked in water and used to relieve venomous insect bite. (d) Hot water extract of leaves is often used to behave swellings.
Oxalis corniculata (Oxalidaceae) Amrul	Leaf	(a) Stomach pain (b) Scurvy	(a) Using a leaf solution extracted by water to relieve stomach ache (b) Juice from leaves can treat scurvy.
Ocimum sanctum (Lamiaceae) Tulsi	Leaf	(a) Cough (b) bronchitis (c) cold (d) gastric disorder (e) Ringworm	(a) A tablespoon or two of leaf extract should be taken twice day until the cough subsides. To cure bronchitis, colds, and cough, heated leaf juice is utilized (b), (c). Leprosy, ringworm, earaches, itching, and stomach problems can all benefit from leaf juice.
Psidium guajava (Myrtaceae) Peyara	Leaf Bark	(a) Diarrhea (b) Mouth cleanser (c) Dysentery	(a) For a week, a hot water extract of the leaf and stem bark is given every morning and evening to treat diarrhea. (b) A mouthwash is made from delicate leaves. (c) Applying a root mixture and water every day for five weeks to treat dysentery.
Polygonum hydropiper (Polygonaceae) Biskatali	Whole plant	(a) Liver illness (b) sore (c) Epilepsy (d) Dysentery	The plant's (a), (b) solution is claimed to be helpful in treating sore throats and enlarged livers. (c) When combined with tinctures and chewed myrrh, it has been said to have helped patients with epilepsy recover. (f) A seed mixture diluted with water and used twice day to treat dysentery.
Piper betle (Piperaceae) Pan	Leaf	(a) Phlegm (b) Louse removal (c) Coughing (d) Toothache and gum disease	(a) Leaves work well as a decongestant, helping the body get rid of mucus. (b), (c) Leaf extract relieves cough and helps get rid of lice. (d) Leaf is also used to cure toothaches and a variety of oral diseases, including pyorrhea.

Ricinus communis (Euphorbiaceae) Bhenna	Leaf Seed	(a) Jaundice (b) Dysentery (c) Constipation	(a) To treat jaundice, drink 10 mL of leaf juice straight once a day for three to four days. (b) fresh leaf juice given straight with sugar as a medication for dysentery. (c) Healed or consumed seed oil to treat constipation.
Rauvolfia serpentine (Apocynaceae) Sarpogandha	Root	(a) Blood pressure, sedative, Febrifuge (b) Dysentery	(a) Root powder used as a sedative, febrifuge, and hypertensive remedy on a regular basis. (b) It is a suitable treatment for diarrhea.
Syzygium cumini (Myrtaceae) Jam	Bark Seed Fruit	(a) Asthma (b) Diabetes	(a) A pulverized solution is directly injected once day for approximately a week to treat asthma.(b) Regular consumption of fruit extract and seed pulp mixed with sugar or salt helped control diabetes.
Saccharum officinarum (Poaceae) Kushar	Stem	Jaundice	The best treatment for jaundice is juice.
Tamarindus indica (Fabaceae) Tetul	Fruit Seed Leaf	(a) Fever, Gastric (b) Dyspepsia (c) Blood Dysentery (d) Mouth	(a) Fruit pulp is consumed every day for one to seven days and is utilized as a natural remedy for fever and stomach issues. (b) 200g of crushed seed dissolved in 3 cups of water, boiled till two cups remain; consume twice day for 10 days. (c) Eaten twice a day for five to six days, 100 grams of fresh leaf cooked in one liter of water until the solution reaches half a liter. (d) For five days, a cooked decoction of bark and stem is administered three times a day to avoid oral disease.
Terminalia arjuna (Combretaceae) Arjun	Bark	(a) Blood pressure (b) Heart disease	As a morning treatment for high blood pressure, (a) a solution of stem bark mixed with cold water is given on an empty stomach.(b) This remedy is also being used to prevent heart disease.
Terminalia belerica (Combretaceae) Bohera	Green fruit	Cough	Young fruit extracted in hot water used to treat coughs.
Tagetes erecta (Asteraceae) Gendaphul	Whole plant	(a) Bleeding (b) Blotch (c) Tuberculosis (d) Dysentery	(a) Mashes were applied to the incision sites to stop the bleeding. (b) Crushed leaf paste was applied to the incision site after a gentle heating to reduce pain. (c) For the duration of the treatment of tuberculosis, patients were advised to take 250 mg of leaf dust twice daily along with a small amount of goat milk for about a month. (d) Leaf juice was taken three times for three days mixed with the same amount of sugar.
Terminalia chebula (Combretaceae) Horitaki	Seed Fruit	(a) Vomiting (b) Dysentery	(a) Fruit dust mixed with honey is used to cure nausea. (B) Ten grams of fruit dust mixed twice daily with hot water is used to treat diarrhea until the patient feels better.
Tridax procumbens (Asteraceae) Tridhara	Leaf	(a) Dysentery (b) Diarrhea (c) Bronchitis (d) Bleeding	(a), (b) Leaf decoction is useful in the treatment of dysentery and diarrhea. (c) for bronchitis, crushed leaf extract mixed with water consumption. (d) Applying leaf dust to cuts and bruises to stop the

			bleeding.
Tinospora cordifolia (Menispermaceae) Guloncho	Stem Leaf stalk	(a) Discharge of semen, Gonorrhea (b) Diabetic (c) Jaundice (d) Discomfort and edema	(a) Juice produced from young stems, cooked with milk, or diluted with lukewarm water, used three times a day to cure seminal passage and gonorrhea. (b) Eating crushed leaf stalks mixed with neem paste for diabetes treatment. (c) For five days, treat jaundice by consuming 10 milliliters of leaf juice several times a day. (d) The essence of the herb helps reduce swelling and pain.
Wedelia chinensis (Asteraceae) Mohavringaraj	Leaf	(a) Alopecia (b) Hair disease (c) Stop vomiting	Leaves (a), (b) are optional hair stimulants that promote hair growth and are helpful for alopecia. Leaf juice mixed with salt (c) alleviates nausea.
Zingiber officinale (Zingiberaceae) Ada	Rhizome	(a) Indigestion (b) Cold-cough (c) Catarrhal fever (d) Gout	(a) For indigestion, cold-cough, fever, and gout take two grams of plant rhizome powder with hot water twice a day until cured.

Table 2. Recorded plants habit in the study area.

Sl. No.	Habit	No. of species	Percentage %	Total No. of species
1	Herb	36	49.29	71
2	Shrub	15	21.12	71
3	Climber	06	8.45	71
4	Tree	14	19.71	71

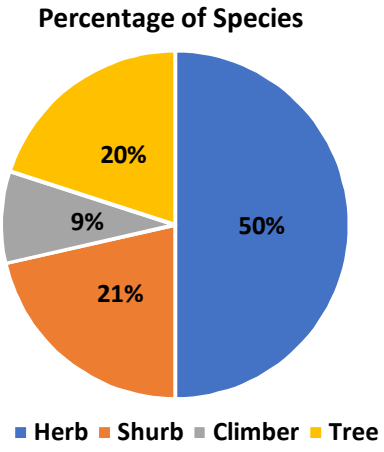

Fig 1. Recorded plant habit in the study area

The results showed that the Phulbari upazila residents of Kurigram district still manage their abdominal pain with plant-based remedies. Medicinal plants were used various diseases of local people in the study area like Acidity, alopecia, and abortion antioxidant, antihelminthic, blood pressure, a diet in balance, breathing difficulties, arthritic anti-inflammatory hemorrhagic diarrhea, Blotch, fractured appendages, Asthma, Burning injuries or feelings, Cancer Cough, loose stools, astringent or cooling, chilly, cholera, chickenpox, Diabetes Dysentery, diarrhea, dog attack, diuretic digestive issue, indigestion, dermatitis pain and edema, inflammation of the eyes, seizures, a febrifuge High temperature, gout gonorrhea, fever from cats, malaria, hair care regimen, headache, heart conditions, hemorrhage Leprosy, Hiccup, joint discomfort, hepatitis, sleeplessness, insect sting, Leucoderma, Leucoria, and illness of the liver, inflammation of the lungs, Male fragility Medication-related illness Menstrual issues, production of mother milk, ringworm, Pyorrhea, Pneumonia, Rheumatism, Piles, immobility, Curvy, sneezing, serpent sting, sedative, Sinuses Skin conditions and treatments, stomach ache, Quit bleeding. Cease vomiting, swelling, tumors, tonsillitis, throat pain, Tuberculosis, toothaches, urinary problems, traumatic injuries, ulcers, weakness, wound healing, and others. In Table 5 and Figure 4 shows recorded dominant diseases in the study area.

Table 3. Recorded plant parts used as medicine

Sl No.	Used part	No. of species	Percentage %	Total No. of species
1	Root	15	21.12	71
2	Stem	06	8.45	71
3	Whole plant	1	19.71	71
4	Leaves	35	49.29	71
5	Bark/root bark	7	9.85	71
6	Leaf stalk	1	1.40	71
7	Fruit	10	14.08	71
8	Flower	3	4.22	71
9	Gum	2	2.81	71
10	Seed	11	15.49	71
11	Petiole	2	2.81	71
12	Tuber	2	2.81	71
13	Rhizome	3	4.22	71
14	Bulb	2	2.81	71
15	Latex	1	1.40	71

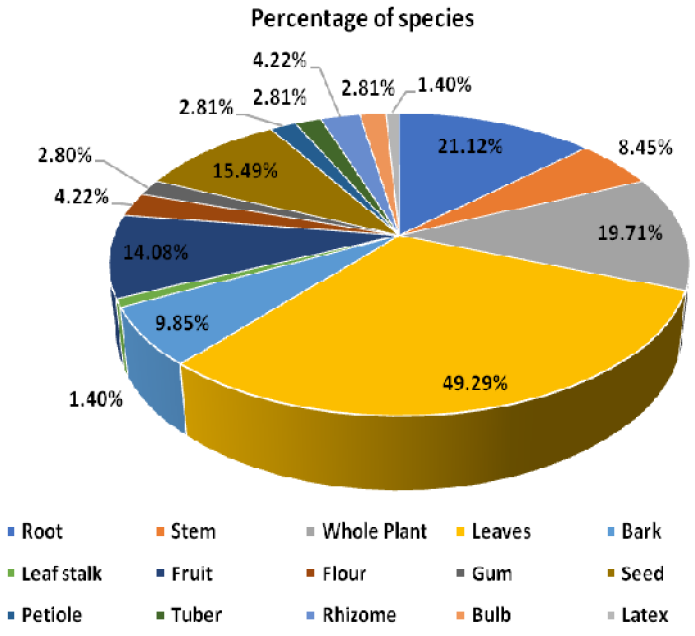

Fig 2. Recorded plant parts used as medicine

In Table 3; Figure 2 shows recorded plant parts used as medicine. In Table 4; Figure 3 Shows recorded dominant families in the study area. 71 medicinal plants have 85 different sorts of uses included in this research. Of them, 18 species have been used to cure dysentery, 13 species to treat fever, and 12 species to treat skin conditions. Ten species for diabetes, eleven for cough, and ten for hair care. Nine species for stomach aches and jaundice. Eight species for antihelminthic, halt bleeding, asthma, and diarrhea, 7 in terms of blood pressure. Six species are used to treat rheumatism, burns, scurvy, pneumonia, and snake bites. Five species for acidity and constipation. Four for headache, four for piles 4 for throwing up. Three for bug bites, two for ringworms, two for weakness, three for gonorrhea, two for toothaches, and three for liver illness 32 disease types were healed by a single species, whilst nearly 31 disease types were treated by two to four species. Recording traditional medical knowledge may be a beneficial endeavor for the welfare of people. Native healers have extensive knowledge of the therapeutic properties and uses of the natural resources in their immediate environment. Oral tradition and usage transmission is how it continues to exist.

Table 4. Recorded Dominant Families in the study area.

Sl No.	Family	No. of species	Percentage %	Total No. of species
1	Asteraceae	6	8.45	71
2	Apocynaceae	4	5.63	71
3	fabaceae	4	5.63	71

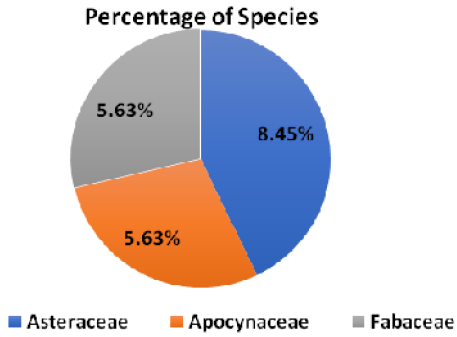

Fig 3. Recorded Dominent Families in the study area.

Table 5. Recorded dominant Disease in the study area.

Sl No.	Disease Name	No. of species	Percentage %	Total No. of species
1	Fever	14	19.71	71
2	Dysentery	12	16.90	71
3	Cough	12	16.90	71
4	Skin disease	10	14.102	71
5	Diabetes	8	11.26	71
6	Hair treatment	8	11.26	71

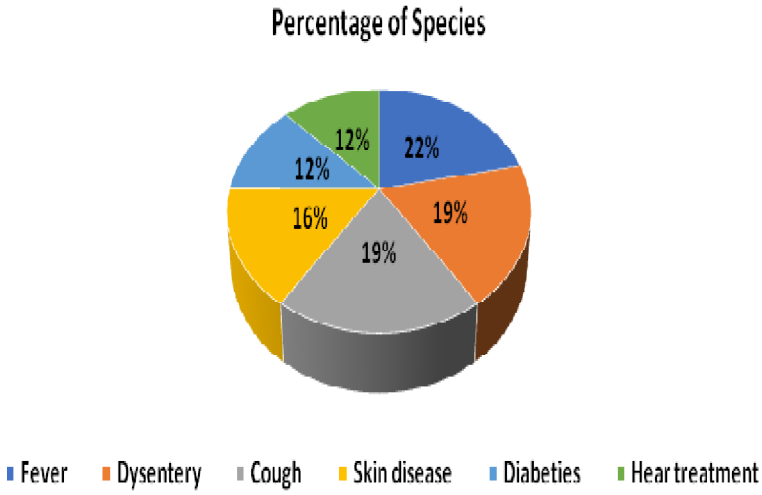

Fig 4. Recorded dominant Disease in the study area.

Table 6. Recorded Abundance of the Medicinal Plant.

Sl No.	Habit	No.of species	Percentage %	Total No. of species
1	Very common	04	5.63	71
2	Common	41	57.75	71
3	Frequent	18	25.35	71
4	rare	08	11.27	71

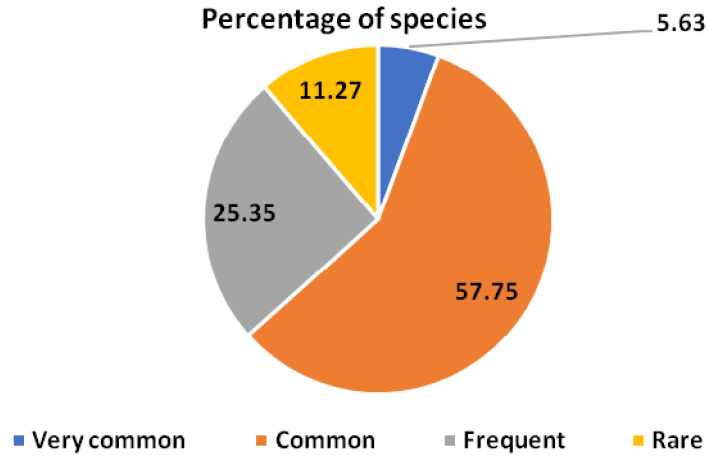

Fig 5. Recorded Abundance of the Medicinal Plant.

Uses of medicinal plants of different diseases in the study area are as follows:

- **Abdominal pain**

Moringaoliefera

- **Abortion**

Ananasannuus
Moringaoliefera

- **Acidity**

Amaranthusviridis
Alstoniascholaris
Ocimum sanctum
Tamarindusindica
Swertiachirata

- **Alopecia**

Wedeliachinensis

- **Antihelminthic**

Acalyphaindica
Areca catechu
Carissa carandus
Clerodendrumviscosum
Ipomoea aquatia
Leucasaspera
Moringaoliefera
Vitexnegundo

- **Anti-oxidant**

Cuscutareflexa

- **Anti-inflammatory**

Moringaoliefera

- **Arthritis**

Calotropisprocera
Neriumindicum

- **Asthma**

Boerhaaviadiffusa
Cissusquadrangularis
Clerodendrumviscosum
Coriandrumsativum
Daturametel
Ficusracemosa
Nigella sativa
Syzygiumcumini

- **Balance diet**

Citrus aurantifolia

- **Blood pressure**

Allium sativum
Catharanthusroseus
Cocciniagrandis
Moringaoliefera
Nigella sativa

Rauvolfiaserpentina
Terminalia arjuna

- **Blood dysentery**

Kalanchoepinnata

- **Blotch**

Tageteserecta

- **Broken limbs**

Cissusquadrangularis

- **Bronchitis**

Acacia nilotica
Cocciniagrandis
Euphorbia hirta
Ipomoea aquatia
Ocimum sanctum
Tridaxprocumbens

- **Burning wounds/sensation**

Amaranthusspinosus
Bombaxceiba
Hibiscus rosa-sinensis

- **Cancer**

Alstoniascholaris
Argemone Mexicana
Catharanthusroseus
Colocasiaesculenta

- **Chicken pox**

Azadirachtaindica

- **Cholera**

Andrographispaniculata

- **Cold**

Allium cepa
Coriandrumsativum
Curcuma longa
Moringaoliefera
Ocimum sanctum
Zingiberofficinale

- **Cooling or astringent**

Hibiscus rosa-sinensis

- **Constipation**

Acalyphaindica
Aegle marmelos
Cuscutareflexa
Eclipta alba
Ricinuscommunis

- **Cough**

Adhatodavasica
Allium cepa
Allium sativum
Andrographispeniculata
Brassica napus
Ficusracemosa
Moringaoliefera
Ocimum sanctum
Piper betel
Terminalia belerica
Zingiberofficinale

- **Diabetes**

Carissa carandus
Catharanthusroseus
Cocciniagrandis
Ficusracemosa
Momordicacharantia
Moringaoliefera
Nigella sativa
Phyllanthusemblica
Syzygiumcumini
Tinosporacordifolia

- **Diarrhoea**

Andrographispeniculata
Aegle marmelos
Centellaasiatica
Cyperusrotundus
Eclipta alba
Mimosa pudica
Psidiumguajava
Tridaxprocumbens

- **Digestive problem**

Cissusquadrangularis
Citrus aurantifolia
Tamarindusindica

- **Diuretic**

Boerhaaviadiffusa

- **Dog bite**

Heliotropiumindicum

- **Dysentery**

Acacia nilotica
Amaranthusspinosus
Areca catechu
Centellaasiatica
Costusspeciosus
Curcuma longa
Dalbergiasissoo
Euphorbia hirta
kalanchoepinnata
Musa sapientum
Polygonumhydropiper
Psidiumguajava
Rauvolfiaserpentina
Ricinuscommunis
Tageteserecta
Tamarindusindica
Terminalia chebula
Tridaxprocumbens

- **Dyspepsia**

Areca catechu
Tamarindusindica

- **Eczema**

Curcuma longa

- **Edema/pain**

Euphorbia hirta
Lantana camara
Mimosa pudica
Tinosporacordifolia

- **Eye inflammation**

Costusspeciosus

- **Epilepsy**

Polygonumhydropiper

- **Febrifuge**

Rauvolfia serpentine

- **Fever**

Adhatodavasica
Andrographispaniculata
Allium sativum
Ananasannuus
Cocciniagrandis
Coriandrumsativum
Curcuma longa
Cyperusrotundus
Enhydrafluctuans
Ipomoea aquatic
Momordicacharantia
Swertiachirata
Tamarindusindica

- **Malarial fever**

Argemone Mexicana
Lantana camara

- **Catarrhal fever**

Citrus aurantifolia
Vitexnegundo
Zingiberofficinale

- **Gonorrhea**

Curcuma longa
Dalbergiasissoo
Tinosporacordifolia

- **Gout**

Brassica napus
Zingiberofficinale

- **Hair treatment**

Allium sativum
Aloe barbadensis
Brassica napus
Citrus aurantifolia
Clerodendrumviscosum
Eclipta alba
Hibiscus-rosa-sinensis
Lawsoniainermis
Phyllanthusemblica
Wedeliachinensis

- **Headache**

Allium cepa
Andrographispaniculata
Clitoriaternetea
Momordicacharantia

- **Heart disease**

Aegle marmelos
Terminalia arjuna

- **Hemorhage**

Dalbergiasissoo

- **Hiccup**

Swertiachirata

- **Insectbite**

Achyranthesaspera
Heliotropiumindicum
Neriumindicum

- **Insomnia**

Boerhaaviadiffusa
Brassica napus
Cocciniagrandis

- **Jaundice**

Achyranthesaspera
Aloe barbadensis
Argemone Mexicana
Azadirachtaindica
Cajanuscajan
Ipomoea aquatic
Ricinuscumminis
Saccharumofficinarum
Tinosporacordifolia

- **Joint pain**

Neriumindicum

- **Leprosy**

Andrographispaniculata
Amaranthusviridis
Ipomoea aquatica

- **Leucoria**

Abromaaugusta
Allium sativum

- **Leucoderma**

Acacia nilotica

- **Liver disorder**

Andrographispaniculata
Cuscutareflexa
Polygonumhydropiper

- **Lung infection**

Andrographispaniculata

- **Male weakness**

Bombaxceiba

- **Measles**

Lantana camara

- **Menstrual problem**

Costusspeciosus
Hibiscus rosa-sinensis

- **Mother milk secretion**

Cajanuscajan
Nigella sativa

- **Paralysis**

Calotropisprocera
Aloe barbadensis

- **Piles**

Adhatodavasica
Cajanuscajan
Cissusquadrangularis
Mimosa pudica

- **Pneumonia**

Cajanuscajan

- **Pyorrhea**

Azadirachtaindica

- **Rheumatism**

Alstoniascholaris
Bombaxceiba
Calotropisprocera
Daturametel
Leucusaspera
Moringaoliefera

- **Ring worm**

Curcuma longa
Ocimum sanctum

- **Scurvy**

Cissusquadrangularis
Citrus aurantifolia
Oxalis corniculata
Phyllanthusemblica
Psidiumguajava
Tamarindusindica

- **Sedative**

Rauvolfiaserpentina

- **Sinuses**,

Vitexnegundo

- **Skin disease/care**

Allium sativum
Aloe barbadensis
Argemone Mexicana
Azadirachtaindica
Brassica napus
Citrus aurantifolia
Clerodendrumviscosum
Daturametel
Lawsoniainermis
Leucasaspera
Mikaniamicarantha
Phyllanthusemblica

- **Sneezing**

Coriandrumsativum

- **Snake bite**

Acalyphaindica
Achyranthesaspera
Allium cepa
Leucasaspera
Mimosa pudica
Musa sapientum

- **Scrofulous Sore**

Areca catechu
Cyperusrotundus
Vitexnegundo

- **Stomach pain**

Abromaaugusta
Aegle marmelos
Centellaasiatica
kalanchoepinnata
Leucasaspera
Momordicacharantia
Moringaoliefera
Oxalis corniculata
Phyllanthusemblica

- **Stop bleeding**

Colocasiaesculenta
Curcuma longa
Cynodondactylon
kalanchoepinnata
Mikaniamicarantha
Musa sapientum
Tageteserecta
Tridaxprocumbens

- **Stop vomiting**

Citrus aurantifolia
Swertiachirata
Terminalia chebula
Wedeliachinensis

- **Swelling**

Clitoriaternetea
Neriumindicum

- **Throat pain**

Clitoriaternetea

- **Traumatic injury**

Achyranthesaspera

- **Tonsilitis**

Achyranthesaspera

- **Toothache**

Amaranthusspinosus
Areca catechu

- **Tuberculosis**

Centellaasiatica
Clitoriaternetea
Tageteserecta

- **Tumor**

Argemone Mexicana
Catharanthusroseus
Clerodendrumviscosum
Colocasiaesculenta

- **Ulcer**

Alstoniascholaris
Curcuma longa
Neriumindicum

- **Urinary problem**

Achyranthesaspera
Costusspeciosus

- **Weakness**

Abromaaugusta
Aloe barbadensis

- **Wound healing**

Carissa carandus
Curcuma longa
Cyperusrotundus
Polygonumhydropi

Discussion

This study presents findings based on research of medicinally significant plants discovered in Phulbari upazila of Kurigram district, Bangladesh. The data presented in this work was gathered from field surveys conducted in the study area. The field surveys were conducted in July 2022 to March 2024. The most frequently used species for the treatment of different diseases are *Enhydra fluctuans, Ficus racemosa, Heliotropium indicum, Hibiscus rosa-sinensis, Ipomoea aquatia, Kalanchoe pinnata, Lantana camara, Leucas aspera, Lawsonia inermis, Mikania micarantha, Mimosa pudica, Momordica charantia, Moringa oliefera*, *Musa sapientum, Nerium indicum, Nigella sativa, Ocimum sanctum, Oxalis corniculata, Phyllanthus emblica, Piper betle, Polygonum hydropiper, Psidium guajava, Rauvolfia serpentina, Ricinus communis, Saccharum officinarum, Swertia chirata, Syzygium cumini, Tagetes erecta, Tamarindus indica, Terminalia arjuna, Terminalia belerica, Terminalia chebula, Tinospora cordifolia, Tridax procumbens, Vitex negundo, Wedelia chinensis* and *Zingiber officinale*. This finding of common medicinal plant families in the study is in agreement with Anisuzzaman et al., (2007), Ghani (2003), Jamila & Rahman (2016), Choudhury & Rahmatullah (2012), Faruque & Uddin (2014), and Yusuf et al., (1994, 2006).

The leaves of *Achyranthes aspera* L., *Ageratum conyzoides* L., *Aerva sanguinolenta* L., *Amaranthus lividus* L., *Andrographis paniculata* (Burm.f.) Wall ex Nees, *Boerhaavia diffusa* L., *Croton bonlandianus* Baill., *Psidium guajava*, *Chenopodium ambrosioides* L., *Chromolaena odorata* (L.) King & Robin, *Tamarindus indica*, *Exacum pedunculatum* L., *Grangea maderaspatana* (L.) Poir., *Lawsonia inermis*, *Hemigraphis hirta* (Vahl.) T. Anderson, *Leucas aspera* (Wlld.) Link, *Oxalis corniculata* L, *Portulaca oleracea* L., *Rungia pectinata* (L.) Nees in DC., *Vernonia patula* (Aiton.) Merrill. *Wedelia trilobata* (L.) Hitchc. are used for the treatment of skin disease, cuts, wounds, bronchitis, asthma, jaundice, abscess, boils, burns, leprosy, lung infection, cough, eczema, cold, flu, stomachache, earache, mouth ulcer, chronic rheumatism, fever, influenza, diarrhea, insect-bite, inflammation, smallpox, herpes, ringworm, alopecia, hair disease

and vomiting. Similar research were recorded like Rahman & Khanom (2013); Rahman et al., (2013); Sultana & Rahman (2016); Ghani (2003); Jamila & Rahman (2016); Islam & Rahman (2016); Roy & Rahman (2016); Uddin & Hassan (2014) and Yusuf et al., (2006).

Conclusion

This study presents findings based on research of medicinally significant plants discovered in Phulbari upazila of Kurigram district, Bangladesh. A total of 71 plant species under 66 genera and 42 families have been documented which are used for the treatment of 67 categories diseases. Asteraceae Amaranthaceae, Euphorbiaceae, Acanthaceae, Araceae and Fabaceae were dominant families used for medicinal purposes. Out of recorded diseases, cough, skin disease, wound, fever, dysentery, diarrhoea, stomach-ache, constipation, diabetes, eczema, skin disease, toothache, worm, wound, sex problems, asthma and bronchitis was dominant diseases in the study area. According to this study, traditional uses of medicinal plants can be used to positively predict how well those plants will work to cure a range of illnesses and conditions in people. Nonetheless, more work needs to be done to build a thorough grasp of pharmaceutical applications since this will help with the creation of novel treatments and a primary healthcare facility for the community.

Acknowledgement

The authors are grateful to the local people at Phulbari upazila of Kurigram district, Bangladesh for their co-operation and help during the research work.

Ethical approval

Medicinal plants used by local people at Phulbari upazila of Kurigram district, Bangladesh was observed in this study. The ethical guidelines for medicinal plants & plant materials are followed in the study for sample collection & identification.

Informed consent

Not applicable.

Conflicts of interests

The authors declare that there are no conflicts of interests.

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Data and material availability

All data associated with this study are present in the paper.

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