COMMUNITY STRUCTURE OF MORACEAE FAMILY PLANT TYPES IN THE FOREST AREA OF LAMPAGEU UJONG PANCU VILLAGE GREAT ACEH DISTRICT

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ABSTRACT

The Moraceae family, known as the mulberry or fig family, is a group of flowering plants that includes 40 genera and more than 1,000 species. The Moraceae family in general has many benefits including as a source of food, building materials, naham for equipment and medicine. The purpose of this study was to identify the structure of the Moraceae family plant species community in Ujong Pancu, Aceh Besar Regency. The method used in this study is the quadratic method and the plot is analyzed descriptively in the Family Moraceae. Based on the results of research and identification that has been done, ten species of plants of the Moraceae family were found, namely, *Artocarpus heterophyllus, Ficus ampery, Ficus benjamina, Ficus carica L, Ficus lyrata Warb, Artocarpus integer, Artocarpus communis, Ficus carica, Artocarpus elasticus*, and *Ficus macrocarpa*, so it can be concluded that Ujong Pancu Aceh Besar Regency obtained 9 species of Moreceae plants.
Keywords**:** community structure, plant species, family moraceae, ujong pancu.

A. INTRODUCTION

Indonesia is the largest archipelagic country in the world located in Southeast Asia and has a very abundant biodiversity and also has several types of plants. One of the areas is in the Ujung Pancu area. Ujung Pancu is one of the districts of Peukan bada, Aceh Besar district, Aceh Indonesia. In the Ujung Pancu area has several beaches, one of which is Ujung Pancu Beach which has stunning views and has very clear, clean water and green trees and forests that are still natural and awake. Besides being famous for its beautiful beach at the end of the pancu, there are also endemic plants, one of them.

Moraceae plants The types of plants that grow and also develop in Indonesia have approximately 40,000 species of plants consisting of woody plants,

mushrooms, ferns, or even there are plants that produce carbohydrates, produce protein, produce vegetables or even produce fruits, and also plants used for medicine.

Moraceae is one of the members of flowering plants with common characteristics of this tribe can be seen in its leaves which are generally relatively thick, rather fleshy, and from the fruit which is not a true fruit because it is formed from the base of flowers that enlarge and then close so that it can form a fruit-like circle. The Moraceae family is a family of plants that have flowers. The family Moraceae consists of 37 genera and has many types of 1050 species. Based on the results of research and identification that has been done, three species of plants of the Moraceae family were found, namely, this tribe includes jackfruit, sandpaper trees and banyan trees.

Tree structures are widely used in various areas. The organizational structure of an enterprise is structured to resemble a tree structure. For example, a director in a company will be in charge of several deputy directors, then a deputy director will also be in charge of several section heads, and a section chief will also be in charge of several employees. Another example can be found in the plant classification (or taxonomy) system, where several families will consist of several genera, and each genus will also consist of several species

B. RESEARCH METHOD

This research was conducted in the forest of Lampageu Ujong Pancu Village, Aceh Besar Regency. This study used the quadratic method, and the determination of the first point was determined by making a square plot that was placed when first found the plant species of the Moraceae family, then determining the next point by purposive sampling at each point placed 5 plots with the size of each plot 10x10 m2 in accordance with existing provisions, namely tree plant species covering an area (10x10 m2). The types of plants of the Moraceae family contained in plots that have been made are recorded and counted in number. The tools and materials used in this study were cameras, notebooks and stationery. In research, to know and identify Moraceae species it is necessary to use qualitative research studies. All Moraceae

species in the forest environment of Lampageu Ujong Pancu Village, Aceh Besar Regency are the subjects of this study. Later discovered Moraceae plants were soon recorded and documented. Furthermore, the data obtained are immediately identified. Plant species seen from the results of documentation that have been found, can use book references and journals that form a unity like the structure of a tree.

RESULT AND DISCUSSION

Based on the results of the study, there are 9 species of plants belonging to the Moraceae family found in the forest of Lampageu Ujong Pancu Village, Aceh Besar Regency. These plants can be seen in the following table.

Table 1. Plant Observation Data in Lampageu Ujong Pancu Village Forest, Aceh Besar Regency

No	Local Name	Scientific Name	Family
1.	Jackfruit tree	*Artocarpus heterophyllus*	Moraceae
2.	Emery tree	*Ficus emery*	Moraceae
3.	Banyan tree	*Ficus benjamina*	Moraceae
4.	Beautiful violin	*Ficus lyrata*	Moraceae
5.	Cempedak tree	*Artocarpus integer*	Moraceae
6.	Breadfruit tree	*Artocarpus communis*	Moraceae
7.	Fig tree	*Ficus carica*	Moraceae
8.	Rice terap tree	*Artocarpus elasticus*	Moraceae
9.	Banyan tree kimeng	*Ficus microcarpa*	Moraceae

1. Jackfruit tree

Jackfruit has the scientific name *Artocarpus heterophyllus* and belongs to the Moraceae family, this fruit has a large size, sweet taste, and a pleasant aroma that is pungent and druped. This single seed is covered with a white seed coat surrounding a thin brown endosperm and is protected by the white pulp of the cotyledons. The roots in jackfruit plants are taproots with downy root branches. The trunk of the jackfruit tree includes a trunk that is round cylindrical woody and brownish-white. Jackfruit leaves belong to single

leaves, on the branches of the plant grow intermittently, the shape of the leaves is elongated. The upper part of the leaf surface is light green and has a smooth or smooth texture while the lower part of the leaf surface is dark green and the structure is rough. This jackfruit leaf has a flat leaf type, blunt leaf tips, pinnate leaf bones, pointed leaf bases, and thin fruit flesh. Jackfruit tree flowers belong to the type of compound flowers found in the axilla leaves, have short shoots on the edges of the trunk and old branches, have a rounded shape.

Plant name	Picture	Classification
Jackfruit Tree		Kingdom : Plantae Divisio : Magnoliophyta Class : Magnoliopsida Order : Urticales Family : Moraceae Genus : Artocarpus Species : *Artocarpus heterophyllus*

2. Emery tree

Sandpaper tree is growing up to 20–30 meters. The trunk develops aerial roots and supports to anchor it in the ground and help support heavy branches. The blade is ovate to elliptical or ovoid; base taper to blunt; the crest is pointed, pointed or blunt; and overall toothed margins. Emery contains water, is yellowish-brown in color and spicy in taste. The trunk of the emery tree stands upright, rounded, and has sympodial branching. The leaves are single, alternate, oval, jagged edges. Emery leaves have a rough texture and if dry can be used as emery to smooth the surface of the wood. The flowers are 5–7 mm long, brownish-green, and the petals are funnel-shaped. While the seeds are round and white.

Plant name	Picture	Classification

Emery Tree		Kingdom :Plantae Subkingdom : Tracheobionta Superdivision : Spermatophyta Division : Magnoliophyta Class : Magnoliopsida Subclass : Hamamelididae Order : Urticales Family : Moraceae Genus : Ficus Species : *Ficus ampelas*

3. Banyan tree

Banyan has the scientific name *Ficus benjamina* and is widely found in Indonesia. Banyan is able to grow very large so that it has the ability to absorb carbon dioxide and produce oxygen effectively. Banyan tree has a height of up to 35 meters. Banyan tree has an erect, spherical trunk, sympodial branching, rough surface, on the trunk grow hanging roots of blackish-brown color. Leaves single, crossed opposite, oblong, flat edges, pointed tips, with pinnate reinforcement. The root system of the banyan tree can penetrate the rocks.

Plant name	**Picture**	**Classification**
Banyan Tree		Kingdom : Plantae Subkingdom : Tracheobionta Super Division : Spermatophyta Division : Magnoliophyta Class : Magnoliopsida Sub Class : Dilleniidae Order : Urticales Family : Moraceae Genus : Ficus Species : *Ficus benjamina*

4. Fig tree

Ficus is a genus of plants that naturally grow in the tropics. In general, these

types are known as fig trees or fig wood. The wood of the fig tree can grow up to 10 meters tall with a soft gray trunk and has a trunk diameter of about 17.5 cm. The root system of this tree is shallow and spreads in the soil reaching 15 m with a depth of up to 6 m. The leaves of the fig tree itself are quite large and notched in about 3 or 5 fingers with single-leaf type leaves. The leaves are shiny green scattered throughout the stem and have an ovoid shape with a pointed tip measuring 7.5-15 cm. The flowers of this fig or fig tree are not visible, as they shelteredly close around the fruit. Fig trees are also often found in some humid tropical areas, such as swamps and river banks.

Plant name	Picture	Classification
Fig Tree		Kingdom : Plantae Division : Magnoliophyta Class : Magnoliopsida Order : Rosales Family : Moraceae Tribus : Ficeae Genus : Ficus Species : *Ficus carica*

5. Beautiful violin tree

In ketapang leaves there are two pigments, namely anthocyanins and tannins, where tannin pigments are more dominant. The leaves of this tree have a wide and stiff size and do not fall easily even though the leaves are old and yellow. The tree is named by its beautiful violin and leaves facing (scattered), there are stipules, singular, often with systolite on the epidermis. Fruits and seeds in the form of drupa are often arranged into compound fruits or akhene in a fleshy tentacle forming a goblet and called sticonium. Tap-rooted **and filamentous**. Trunk solitary, woody, with grayish, shallow cracked bark. Single leaves, scattered leaf arrangement, green, glossy, bare, leathery, large.

Plant name	Picture	Classification

Beautiful Violin Tree		Kingdom : Plantae Division : Magnoliophyta Class : Magnoliopsida Subclass : Hamamelididae Order : Urticales Family : Moraceae Genus : Ficus Species : *Ficus lyrata*

6. Cempedak tree

Cempedak is a fruit plant of the family Moraceae. The shape of the fruit, taste, and fragrance are like jackfruit, Cempedak plants have taproots **with very many branches**. So that this cempedak plant can grow upright. It grows to a height of about 1000 meters above sea level. Cempedak is usually planted in yards, mixed gardens, to complex agroforestry, which often wanders into secondary forests. Cempedak has flowers that appear in the armpits of **leaves**, large branches or main stems, and special short shoots that are leafy. Cempedak fruit is elongated round, greenish, yellowish to brownish, with a large with an average size of 40 cm long and 20 cm in diameter.

Plant name	**Picture**	**Classification**
Cempedak Tree		Kingdom : Plantae Subkingdom : Tracheobionta Superdivision : Spermatophyta Division : Magnoliophyta Class : Magnoliopsida Order : Morales Family : Moraceae Genus : Artocarpus Species : *Artocarpus integer*

7. Breadfruit Tree

Artocarpus altilis is the name of a type of tree that bears fruit. Breadfruit is seedless and has the scientific name *Artocarpus communis*. Breadfruit rooted tap-type, the stem of this large plant has a green-brown skin with a fibrous and rough skin texture. Tree branches will be seen growing upwards with a considerable amount and gummy, breadfruit leaves are single leaves with oval to oval shapes, breadfruit flowers are monoceous flowers and breadfruit fruits have thorny, rough and thick skin. The leaves of breadfruit plants will grow to a range of twenty to sixty centimeters (for length), with a width ranging from twenty to forty centimeters; the stalk reaches a length of approximately three to seven centimeters. The base of the leaf will be rounded with a pointed tip; The edges of the leaves form fins and sometimes the fins are able to bend, slippery, while on the underside they are dull and rough in texture.

Plant name	Picture	Classification
Breadfruit Tree		Kingdom : Plantae Subkingdom : Tracheobionta Super Division : Spermatophyta Division : Magnoliophyta Class : Magnoliopsida Sub Class : Dilleniidae Order : Urticales Family : Moraceae Genus : Artocarpus Species : *Artocarpus communis*

8. Rice terap tree

Artocarpus elasticus belongs to the Mulberry Family (Moraceae) and is commonly called rice terap which has a height of 25 m and the stem can have a diameter of up to 40 cm which is grayish in color. The fruit is similar to embossed or stretched fruit, with protrusions similar to long soft spines and short, slightly sticky. The twigs of this tree have long yellow to reddish hairs. The leaves on this plant appear from the shoots or in the armpits of the leaves.

Produces small breadfruit-like fruits. The leaves of the bulb are ovate, yellow or red fluffy, inflorescences occur in solitary weevils, which appear on the armpits of the leaves. The male flower buds are oblong, the fruit is compound (*syncarp*) slightly rounded, greenish-yellow when ripe, with protrusions similar to short soft thorns, stemmed and appear at the ends of the twigs. The flesh of the fruit is whitish, contains a lot of juice, sweet and fragrant as hell, feels soft slippery and a bit jelly on the tongue. Seeds (pericarp).

Plant name	Picture	Classification
Rice Terap Tree		Kingdom : Plantae Subkingdom : Tracheobionta Superdivision : Spermatophyta Division : Magnoliophyta Class : Magnoliopsida Subclass : Hamamelididae Order : Urticales Family : Moraceae Genus : Artocarpus Species : *Artocarpus elasticus*

9. Banyan tree kimeng

Banyan kimeng or Kimeng (*Ficus microcarpa*) is one of the Ficus family and is still in the fig family Moraceae. This plant has a taproot type, with a spherical stem and rough surface, and banyan leaves are oval or oval, banyan flowers are single flowers and emerge from the armpits of the leaves, while the fruit is a buni fruit with a round shape.

Plant name	Picture	Classification

Kimeng Banyan Tree		Kingdom : Plantae Subkingdom : Tracheobionta Superdivision : Spermatophyta Division : Magnoliophyta Class : Magnoliopsida Subclass : Hamamelididae Order : Urticales Family : Moraceae Genus : Ficus Species : *Ficus microcarpa*

CONCLUSION

From research conducted at the location of ujong pancu Aceh Besar regency found 2 genera with 9 types of moraceae family. The most numerous types of moracea are from the ficus genus, which is five types and the artocarpus genus is obtained four types, environmental conditions at the location of ujong pancu Aceh Besar regency, namely temperature, humidity, altitude, pH, and light intensity are very suitable for moracea habitat

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