

INVENTORY OF ANACARDIACEAE FAMILY AT SUNAN GUNUNG DJATI STATE ISLAMIC UNIVERSITY

Nazla Fauziyah Octaviani

Jurusan Biologi, Fakultas Sains dan Teknologi, Universitas Islam Negeri Sunan Gunung Djati,
Bandung

E-mail : nazla.fauziyah15@gmail.com

Nisa Hamidah Zahra Ar-Rais

Jurusan Biologi, Fakultas Sains dan Teknologi, Universitas Islam Negeri Sunan Gunung Djati,
Bandung

E-mail : nisazahra053@gmail.com

Ateng Supriyatna

Jurusan Biologi, Fakultas Sains dan Teknologi, Universitas Islam Negeri Sunan Gunung Djati
Bandung

E-mail : atengsupriyatna@uinsgd.ac.id

Abstract: *Indonesia is a country with a tropical climate, so it can produce high diversity, and plants adapt. This includes educational areas with green areas and a fairly even level of diversity, especially in the Anacardiaceae family with special characteristics, such as woody trees, resin channels, plants belonging to the shrub habitus, and single and compound leaves. This study used cruise methods or cruising methods by calculating and analyzing the actual situation in the environment of State Islamic University Sunan Gunung Djati Campus I. There were two genera and three species found, namely the genus Spondias with its species Spondias pinnata or amra and the genus Mangifera with its species Mangifera indica or mango and Mangifera odorata or kweni.*

Keywords: *Inventory, Family, Anacardiaceae.*

1. INTRODUCTION

Indonesia is a tropical region and has several areas with a fairly high level of diversity. The areas that support the tropics become the maximum land for plants to grow optimally. One of the areas implementing green open space, namely Sunan Gunung Djati Bandung State Islamic University with a land area of about 6 ha. With this area, a lot of land is used to become a green area with various kinds of plants. In this friend, some plants grow naturally, and those that are grown with assistance. The diversity of various classes and species is quite a lot. Identification and inventory are needed to determine the state of plant growth and optimal growth

According to (M.T & Ateng Supriyatna, 2021 #) One of the families that is quite dominating and evenly distributed in the green area of the UIN Sunan Gunung Djati Bandung campus is the Anacardiaceae family. This family is quite common in this area with the character

of woody trees, resin channels, and plants belonging to the shrub habitus. Morphologically, the leaves in this

family have a single leaf, but some have compound leaves with a single shape or odd-pinnate. The Anacardiaceae family has multiple flower types, generally, the plants reproduce for bisexual or unisexual, have a pentamer, and have a ring-shaped disk near the statement, apart from that this plant has a single fruit. Such as the *Mangifera* genus which is an example of a genus that belongs to the Anacardiaceae family. This type has many benefits, especially related to the fruit which can be utilized and consumed and contains many benefits for the body (Lathifah & Dharmono, 2018, #).

The species that generally grow in Indonesia are very diverse, but several species are quite dominant, easy to find in various tropical regions, and can grow without requiring special care, such as the *Mangifera*, *Anacardium*, *Spondias*, and *Bouea* families. Apart from being easy to grow and develop, this type of plant from the Anacardiaceae family is also widely consumed because it has various benefits such as Vitamin C, Vitamin A, and others (Sutrisno et al., 2019, #) (Amalia et al., 2017, #).

2. RESEARCH METHODS

This research uses cruise methods or cruising methods that are direct observation by calculating and analyzing the actual situation in the environment of the State Islamic University Sunan Gunung Djati Campus I in June 2023. The area used for research is 0.74 km from the entire campus area using several tools, such as smartphone cameras, notebooks, identification source books, stationery, and Google Earth Pro software.

3. RESULTS AND DISCUSSION

Two genera and three species of the Anacardiaceae family were found in the Sunan Gunung Djati State Islamic University, Campus I. Descriptions of the genera and species are as follows.

Tabel 1. Result of Anacardiaceae’s Family

No.	Species’s Name	Region’s Name
1.	<i>Spondias pinnata</i>	Kedondong (Amra)
2.	<i>Mangifera odorata</i>	Mangga Kweni
3.	<i>Mangifera indica</i>	Mangga

3.1. Genus Spondias

The genus *Spondias* is a genus characterized by the stamens contained in the ring-shaped protrusions of the flower base, the flower stalks are androgynous, the seeds between the skeletons have many fibers, and are orange-yellow. In addition, trees of this genus have a height of about 10-40 meters, leaflets, opposite, and elongated with a pointed base. The flower part has one mixed sex with a thin leaf-boned crown (Steenis, 2013, #).

3.1.1. Kedondong (*Spondias pinnata*)

Kedondong or Amra is a plant that belongs to the Anacardiaceae family and is characterized by a type of taproot that is dark brown, hard woody stems, branches that are sympodial, compound leaves with the widest part in the middle of the leaf blade, sharp base, and leaves about 5-8 cm long. The amra flower is a type of compound flower with a panicle shape, yellow stamens, four flower petals with a lanceolate shape, and white flowers. The fruit part of the amra has an outer layer wall that is thin, watery, oval in shape, and yellowish green in color (Yustine, 2012, #).

3.2. Genus Mangifera

Mangifera is the largest genus after the genus *Rhus* and is a tree habitus with a height of 8-30 meters. *Mangifera* leaves are lanceolate and elongated, the ends are pointed, and both sides have side leaf veins. Has a variety of fruit shapes depending on the characteristics of each species. The *Mangifera* genus has several species, including; *Mangifera caesia*, *Mangifera foetida*, *Mangifera odorata*, and *Mangifera indica* (Rahadianoro, n.d., #) (Latifah & Dharmono, 2018, #). The *Mangifera* genus has other characteristics in terms of its leaves which are elongated and egg-shaped and white, have three purple or yellow leaf veins, the length of the stamens is the same as the length of the crown, and the fruit is orange or yellow (Steenis, 2013, #).

3.2.1. Kweni Mango (*Mangifera odorata*)

Kweni mango is a mango that has a distinctive aroma and is different from other mangoes. Kweni mango tree has a height of about 10-20 meters, a straight stem, and can secrete sap, single leaf that is scattered, oval in shape, leaf blades are hideous, and leaf veins are visible (Latifah & Dharmono, 2018, #). The kweni mango inflorescence is shaped like a pyramid, the flowers have a good smell and have ovoid petals (Steenis, 2013, #).

3.2.2. Mango (*Mangifera indica*)

Mangifera indica is a tree measuring 10-20 meters, has an umbrella-shaped crown, and is dark green. Sturdy trunk, about 90 cm in diameter, light brown, and has white sap (Latifah & Dharmono, 2018, #). *Mangifera indica* has brown twigs, petioles 2-6 cm in size, flower petals are light yellow with a prominent red color, the mesocarp fruit has bright yellow flesh, and the endocarp is compressed (Tianlu & Barfod, n.d.)

Based on the results obtained through direct observation in the environment of the Sunan Gunung Djati State Islamic University of the Anacardiaceae family which was seen based on the number of individuals of each species. In the *Spondias* genus of the Anacardiaceae family, the *Spondias pinnata* species has 3 individuals. The second genus, *Mangifera* with the *Mangifera odorata* species has 3 individuals and 11 *Mangifera indica* species.

In all individuals found in the environment with the same species, differences in growth based on morphology were found, especially in the part of the fruit that did not grow in several species found in certain locations. This case can be caused by internal and external factors. External factors can come from poor air quality due to pollution from motorized vehicles that are widely used by students or the application of fertilizers that are not suitable for mango plants. The internal factors can be caused by gene mutations in mango plants. This is to the opinion (Salsabila et al., 2020, #) that is, if the air quality is poor, it will harm roadside plants. The failure of a tree to bear fruit can be caused by a mutation failure which causes tree to be unable to bear fruit, especially in *Mangifera indica* (Tania, 2021). In addition, applying fertilizer is also a factor that can cause changes in the growth of these trees (Tania, 2021).

4. CONCLUSIONS AND SUGGESTIONS

4.1. Conclusion

From the research that has been done, it can be concluded that there are two genera and three species found, namely the genus *Spondias* with its species *Spondias pinnata* or amra and the genus *Mangifera* with its species *Mangifera indica* or mango and *Mangifera odorata* or kweni

4.2. Suggestion

This research should be further developed using certain technologies that can help identify each plant accurately and precisely.

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