

## ***DIVERSITY OF IPOMOEA IN GETAP, CAKRANEGARA, MATARAM CITY***

**Siratul Aini<sup>1</sup>, Slamet Mardiyanto Rahayu<sup>2</sup>**

**<sup>1,2</sup>Universitas Islam Al-Azhar, Mataram, Indonesia**

**<sup>1</sup>Email: [siratulaini092@gmail.com](mailto:siratulaini092@gmail.com)**

**<sup>2</sup>Email: [slamet.mardiyantorahayu84@gmail.com](mailto:slamet.mardiyantorahayu84@gmail.com)**

### **Abstract**

*Lombok is one of the islands in the Lesser Sunda Islands, home to a rich biodiversity, including plants. This research is necessary to determine the diversity of Ipomoea plants in Getap. Research shows that two Ipomoea species are present in Getap: Ipomoea batatas and I. aquatica.*

**Keywords:** biodiversity, flora, Cakranegara, Lombok

### **INTRODUCTION**

Lombok is one of the islands in the Lesser Sunda Islands, home to a rich biodiversity (Rahayu et al., 2022; Rahayu et al., 2023, Rahayu et al., 2024; Rahayu et al., 2025), including plants. The Getap neighborhood, located in the Cakranegara District of Mataram City, is known as a residential area with strong historical and social value amidst the hustle and bustle of the city's business center. This area is a unique blend of densely populated residential areas with a vibrant local economy, where the community still maintains the spirit of mutual cooperation and local traditions. As part of the strategic Cakranegara area, the Getap neighborhood has easy access to commercial centers, yet strives to maintain its distinctive environmental characteristics. Its geographical location, close to various public facilities, makes this area one of the dynamic residential areas that still offers a close-knit family atmosphere amidst the increasingly modern urban development of Mataram.

The genus *Ipomoea* displays extraordinary morphological and ecological diversity, encompassing more than 500 species widely distributed in tropical and subtropical regions. To date, no research has focused on the diversity of *Ipomoea* plants in Getap. Therefore, this research is necessary to determine the diversity of *Ipomoea* plants in Getap.

Research on *Ipomoea* diversity plays a crucial role in efforts to conserve germplasm and develop food security strategies amidst global climate change. By mapping the genetic variation and morphophysiological characteristics of various species, scientists can identify superior traits such as resistance to drought, salinity, and pest attacks that can be integrated into breeding programs. Beyond agronomic aspects, this study is also important for uncovering the bioactive potential of untapped wild species as raw materials for pharmaceuticals or functional foods, while ensuring ecosystem sustainability through a deeper understanding of the ecological role of this genus. Exploring this diversity not

only broadens the horizons of botanical science but also lays the foundation for more adaptive and sustainable agricultural innovations for the well-being of society.

## **METHOD**

This research was conducted in Getap, Cakranegara District, Mataram City. The research used exploration and observation methods, followed by morphological identification and interviews with local residents. The results were analyzed descriptively.

## **RESULTS AND DISCUSSION**

Research shows that two *Ipomoea* species are present in Getap: *Ipomoea batatas* and *I. aquatica*. Sweet potatoes (*Ipomoea batatas*) have high economic value as a source of carbohydrates. Water spinach (*Ipomoea aquatica*) adapts to aquatic habitats and plays a crucial ecological role in maintaining ecosystem balance.

Communities have long utilized *Ipomoea batatas*, or sweet potato, as a crucial pillar of food security, particularly in rural areas, where it is relied upon as an alternative carbohydrate source to replace rice. The tubers of this plant are traditionally processed by boiling, baking, or steaming for direct consumption, while in cottage industries, sweet potatoes are often transformed into value-added products such as chips, cassava flour, and even as a raw material for cakes. In addition to the tubers, communities in various regions also utilize the young leafy shoots as a green vegetable rich in fiber and micronutrients, demonstrating that almost all parts of this plant have value for daily consumption. With its relative ease of cultivation on various types of land, sweet potatoes continue to be a preferred commodity in food diversification programs and community economic empowerment programs based on local wisdom.

*Ipomoea aquatica*, or water spinach, is widely used by communities as a primary green vegetable due to its ease of cultivation and quick harvest. Both land and water spinach varieties are often used in popular dishes such as stir-fries, stir-fried vegetables, and as accompaniments to traditional dishes like plecting (vegetable salad) and gado-gado (vegetable salad). Besides its crunchy texture and savory flavor, water spinach is popular for its high nutritional content, including vitamin A, vitamin C, iron, and fiber, making it an affordable, functional food solution to meet a family's daily nutritional needs.

Besides being a food source, water spinach also has significant economic and ecological value for the community. Farmers often utilize wetlands or flowing waters to cultivate water spinach as a source of regular income due to its stable demand in local markets. With its high adaptability and short life cycle, *Ipomoea aquatica* continues to be a highly reliable crop in supporting food sovereignty and small-scale economic empowerment.

## CONCLUSION

Research shows that two *Ipomoea* species are present in Getap: *Ipomoea batatas* and *I. aquatica*. The contrasting morphological characteristics of sweet potatoes, a tuber crop, and kale, a green vegetable, demonstrate the broad genetic spectrum that can be developed to support local food security. Conservation and ongoing research on these two species is crucial, not only to provide diverse nutritional sources for the community but also as a foundation for breeding plants that are more resilient to future environmental challenges.

## REFERENCES

- Rahayu, S.M., Batoro, J., Sukenti, S., Hakim, L. (2023). Ethnobotanical study of peraq api ritual in Sasak Tribe of Lombok Island, Indonesia and its potential for sustainable tourism. *Biodiversitas*, 24 (10), 5485-5494.
- Rahayu, S.M., Hakim, L., Batoro, J., Sukenti, K. (2022). Ethnobotany and conservation of Araceae of Sasak community in Ende, Sengkol Village, Central Lombok. *IOP Conference Series: Earth and Environmental Science*, 1097, 012044.
- Rahayu, S.M., Hakim, L., Batoro, J., Sukenti, K. (2024). Plant Diversity, Structure, and Composition of Vegetation in Kemal Muluq Forest, Lombok Island, Indonesia. *Applied Ecology and Environmental Research*, 22 (3), 2439-2453.
- Rahayu, S.M., Hakim, L., Batoro, J., Sukenti, K. (2025). *Flora Arecaceae sekitar Mandalika*. Banyumas: Ganesha Kreasi Semesta.
- Rahayu, S.M., Syuhriatin, Isti Dari Sofianti, Hakim, L. (2025). Wild Edible Plants Diversity and Its Potential for Supporting Food Security in Lombok Island, Indonesia. *Journal of Marine and Island Cultures*, 14 (3), 87-103.
- Rahayu, S.M., Hakim, L., Batoro, J., Sukenti, K. (2025). Ethnozoological Study of Animal Consumption by the Sasak Tribe: Implications for Biodiversity Conservation in Lombok, Indonesia. *International Journal of Design and Nature and Ecodynamics*, 20 (6), 1397-1407.