

Ethnolinguistics of Maluku Coastal Communities: Marine Biota Lexicon and Ecological Knowledge

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Abstract

The Maluku Sea possesses exceptionally rich marine biodiversity and serves as the primary source of livelihood for coastal communities. This richness is reflected not only in economic aspects but also in the local knowledge system that has been passed down through generations through language, particularly in the lexicon of fish and marine biota. This study aims to describe the forms of fish and marine biota lexicons used by the people of Maluku and to reveal the ecological knowledge embedded within them. The study employs a qualitative descriptive approach from an ethnolinguistic perspective. Data in the form of local terms for fish and marine biota were collected through documentation, interviews, and observations of fishing communities in the coastal areas of Maluku. The findings indicate that the naming of fish and marine biota is not arbitrary; rather, it represents the community's observations regarding color, body shape, behavior, habitat, seasonal occurrence, and the economic value of certain species. In addition, variations in fish names were identified across different coastal regions, reflecting the linguistic and cultural diversity of Maluku communities. These lexicons function not only as tools of communication but also as repositories of traditional ecological knowledge that are essential for the sustainable management of marine resources. Therefore, the documentation of fish and marine biota lexicons constitutes a strategic effort toward preserving the language, culture, and local knowledge of the coastal communities of Maluku.

Keywords: *Coastal communities; Ecological knowledge; ethnolinguistics; Maluku; Marine lexicon*



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INTRODUCTION

The Maluku region is widely recognized as one of Indonesia's maritime areas with a high level of marine biodiversity. The Maluku Sea is home to various species of pelagic fish, demersal fish, and other marine biota such as mollusks, crustaceans, and echinoderms that constitute the primary livelihood resources of coastal communities. The long-standing interaction between local communities and the marine environment over centuries has generated a complex body of local knowledge transmitted from generation to generation. One form of this transmission is reflected in language use, particularly in the lexicon of fish and marine biota.

Language functions not only as a means of communication but also as a representation of a community's worldview and knowledge system (Chaer, 2007). From an ethnolinguistic perspective, the lexicon reflects the relationship between humans and their social as well as ecological environment (Taha & Febriningsih, 2022). Coastal communities' knowledge of the sea, marine organisms, fishing gear, and fishing seasons is often represented through local terms embedded in the speech of fishing communities. According to Robert Sibarani (2004), language and culture are closely interconnected because language serves as a medium for preserving and transmitting local knowledge within society. Similarly, Harimurti Kridalaksana (2008) argues that the lexicon reflects the social and cultural realities of its speakers.

The local lexicon used by Maluku fishing communities functions not merely as species nomenclature but also contains ecological, social, and cultural information. Fish names generally represent morphological characteristics, habitats, behavior, seasonal appearance, and economic value. Thus, language becomes a medium for storing the ecological knowledge of coastal communities formed through empirical experiences in interacting with the marine environment. Local ecological knowledge is understood as a system of knowledge developed through a community's long-term relationship with nature and serves as the basis for adaptive strategies in understanding marine ecosystems, as explained Berkes (2012). Local naming practices for fish and marine biota indicate that fishing communities possess profound observational abilities regarding marine ecosystems. For instance, certain fish names refer to body color, fin shape, movement patterns, or specific habitat locations. In some contexts, these names are also associated with folklore, customary beliefs, and local history, enriching the cultural meaning embedded in the lexicon. Anthropological studies demonstrate that local vocabulary not only describes biological objects but also contains cultural values, social systems, and patterns of human interaction with the environment (Duranti, 1997).

Furthermore, the linguistic diversity found in coastal regions has led to variations in the naming of fish and marine biota across different areas. A single fish species may possess several local names depending on dialects, histories of cultural contact, and the ecological experiences of local communities. This phenomenon demonstrates that language develops dynamically in accordance with the social and environmental interactions of its speakers. In ecolinguistic studies, the relationship between language and the environment is understood as a reciprocal interaction in which both influence one another (Haugen, 1972).

However, the advancement of modernization, trade, and the dominance of national language terminology has gradually reduced the use of local terms. Younger generations in coastal communities tend to be more familiar with market names or general terms than with the traditional names inherited from their ancestors. This condition potentially threatens the loss of local ecological knowledge embedded in the language of fishing communities. Without proper documentation, the maritime lexicon and the cultural and ecological values contained within it may eventually become extinct. Based on these conditions, the documentation and study of fish and marine biota lexicons are essential. Such studies contribute not only to the development of linguistics, particularly ethnolinguistics and ecolinguistics, but also to the preservation of maritime culture and the ecological knowledge of coastal communities. Therefore, this study aims to describe the forms of fish and marine biota lexicons used by the people of Maluku and to explain the ecological knowledge reflected in their naming systems.

METHODS

This study employed a qualitative descriptive approach from an ethnolinguistic perspective. This approach was chosen because the research focuses on describing the lexicon of fish and marine biota used by the people of Maluku as well as the ecological and cultural meanings embedded within it. The ethnolinguistic approach was applied to understand the relationship between language, culture, and the local knowledge of coastal communities within the context of maritime life. The research was conducted in several coastal areas of Maluku with strong traditional fishing activities, including Seram Island, Buru Island, Haruku Island, and Ambon. These locations were purposively selected because the local communities still actively use traditional terms in fishing and fish-trading activities. The research subjects consisted of fishermen, traditional leaders, fish traders, and coastal community members who possess knowledge regarding the use of fish and marine biota lexicons in daily life. Informants were selected using a purposive sampling technique by considering their knowledge and experience related to local maritime terminology.

The research data consisted of fish and marine biota lexicons in the local languages of Maluku, including their meanings, contexts of use, and the ecological knowledge associated with them. Data sources included: Utterances of fishing communities in daily activities; Interview results obtained from informants; Local documentation, field notes, and references related to fish species and marine biota. Data collection was carried out using the following techniques: Observation. The researcher conducted direct observations of fishing community activities in coastal areas, particularly during fishing operations, fish auctions, and fish trading processes. Observation was conducted to understand the use of lexicons within their actual contexts. Interviews. In-depth and semi-structured interviews were conducted with informants to obtain information regarding local fish names, the origins of naming practices, cultural meanings, and the ecological knowledge embedded within these lexicons.

Documentation techniques included recording local terms, audio-recording conversations, photographing fishing activities, and collecting supporting documents or references related to marine biota and the local languages of Maluku communities. The data were analyzed using the interactive analysis model proposed (Miles & Huberman (2002), which consists of three stages: data reduction, data display, and conclusion drawing. Data reduction was conducted by selecting and categorizing fish and marine biota lexicons based on specific categories such as habitat, body shape, color, and fish behavior. Data presentation was carried out in the form of descriptive explanations, lexicon tables, and descriptions of the cultural and ecological contexts of each local term. Conclusion drawing was performed by interpreting the relationship between the lexicons, the ecological knowledge of the community, and the cultural values embedded within them.

The validity of the data was ensured through source triangulation and method triangulation techniques. Source triangulation was conducted by comparing information obtained from several informants, while method triangulation was carried out by comparing the results of observations, interviews, and documentation. In addition, member checking was conducted with informants to ensure the accuracy of the data and the interpretation of the research findings.

RESULTS AND DISCUSSION

The Maluku Sea possesses extraordinary marine biodiversity, ranging from pelagic and demersal fish to non-fish marine organisms such as mollusks, crustaceans, and echinoderms. This biological richness not only supports the economic livelihood of coastal communities but also gives rise to a rich system of local knowledge (Hengki et al., 2025). One manifestation of this knowledge is reflected in language—particularly in the local names assigned to various species of fish and marine biota. Each local name functions not merely as a label, but also as a “repository” of ecological, technical, and cultural information accumulated by fishing communities over centuries. Local names for fish and marine biota in Maluku generally contain morphological markers such as color, body shape, and patterns; behavioral characteristics such as swimming and feeding habits; habitat indicators such as coral reefs, sandy bottoms, or surface waters; seasonal occurrence; and even economic value. For example, several names of pelagic fish are derived from their active movement patterns across surface waters, whereas names of demersal fish more commonly reflect the characteristics or locations of their habitats. These naming practices are also frequently associated with

folklore, customary beliefs, or particular historical events, thereby carrying symbolic and philosophical dimensions.

The documentation of fish and marine biota lexicons is essential for two major reasons. First, it serves as an archive of the highly detailed and practical ecological knowledge possessed by fishing communities. Through local names, fishermen identify the best seasons for catching specific species, the most appropriate fishing gear, and the locations of their habitats. Such knowledge contributes to sustainable and efficient fishing practices. Second, in the modern era, these local terms are increasingly being replaced by market names, Indonesian terminology, or foreign names introduced through trade and media. This shift risks eroding the knowledge embedded within local nomenclature. Without proper documentation, future generations may lose access to a body of knowledge that has proven relevant and adaptive for hundreds of years.

For the academic world, documenting fish and marine biota lexicons creates opportunities for interdisciplinary studies involving linguistics, anthropology, and fisheries science. For coastal communities, such documentation helps strengthen cultural identity, foster pride in linguistic heritage, and serve as an educational medium for younger generations. For policymakers, the documentation can provide a foundation for developing programs aimed at preserving local knowledge and promoting community-based marine resource management. Therefore, this book seeks to present not merely a list of names, but also the ecological, social, and cultural contexts associated with them, so that the lexicon of Maluku fish and marine biota may serve broadly as a source of reference, education, and policy development.

Local Terms for Fish Species

The fishing communities of Maluku possess a rich vocabulary used to refer to various fish species. These local terms function not only to distinguish one species from another, but also to communicate distinctive characteristics, seasonal occurrence, economic value, and appropriate fishing methods. Many of these terms originate from visual observations such as color, shape, and size; fish behavior such as swimming patterns and feeding habits; habitat locations; and even sounds or sensations associated with particular species. Local fish names also frequently vary from one island to another, reflecting the linguistic and cultural diversity of the people of Maluku. The documentation of local terms, together with their scientific and common names, is essential for bridging traditional knowledge and modern scientific understanding. Through such documentation, the knowledge of fishermen can be integrated into fisheries management, education, and research. The following are several examples of fish lexicons used by coastal communities in Maluku.

Table 1. Examples of Fish Lexicon Entries in Maluku

Local Name	Indonesian Name	Scientific Name	Description
Tuwale	Kerapu Macan	<i>Epinephelus fuscoguttatus</i>	A large coral reef fish with a yellowish-brown body covered in dark spots and possessing high economic value.
Komu	Tongkol Krai	<i>Euthynnus affinis</i>	A small to medium-sized pelagic fish that inhabits surface waters and migrates rapidly.
Batu Karang	Kakap Merah	<i>Lutjanus malabaricus</i>	A bright red demersal fish that inhabits rocky and coral-bottom habitats.
Sura	Cakalang	<i>Katsuwonus pelamis</i>	A large pelagic fish with wide migratory movements and considered one of the main fishery commodities for local fishermen.

The term “tuwale,” for example, is used by the people of Seram Island to refer to the tiger grouper that inhabits coral reef areas. The name is believed to originate from a local expression meaning “ruler of the reef,” referring to the dominance of this species within its habitat. Meanwhile, the term “komu” derives from the sound association of water splashes produced when the fish moves across the sea surface. These naming practices demonstrate that fishing communities identify fish species not only through visual characteristics but also through a detailed understanding of their behavior and ecological traits.

Ecological Knowledge Embedded in Fish Naming Practices

The lexicon of fish and marine biota used by the people of Maluku represents ecological knowledge that has developed through the long-term interaction of coastal communities with the marine environment. Local naming practices are fundamentally non-arbitrary; rather, they emerge from continuous ecological observations of particular species. From an ethnolinguistic perspective, language is viewed as a medium for preserving a community's collective knowledge about its environment (Mofu, Arafah, & Malawat, 2024). Therefore, maritime lexicons can be understood as representations of the local ecological knowledge possessed by coastal communities. Naming based on color constitutes one of the dominant patterns in the fish lexicon of Maluku communities. Fish with bright red coloration are often associated with elements such as "fire" or "embers," while white or silvery fish are commonly linked to sand or white stones. Such naming practices indicate that fishermen use visual characteristics as the basis for identifying species in the marine environment. According to Brent Berlin, traditional classification systems within local communities are generally constructed through empirical observations of morphological features that are easily recognized in everyday life.

In addition to color, fish body shape also serves as an important basis in the naming process. Fish with flat bodies are often given names referring to sheets or plates, whereas fish with long fins are named after objects perceived to have similar forms. Such naming practices demonstrate the ability of coastal communities to construct biological categories based on similarities in shape and function. This observation aligns with the view of William A. Foley that local languages frequently preserve complex systems of natural categorization developed through the cultural experiences of their speakers. Fish behavior is likewise reflected in the local naming system of Maluku communities. Fish that swim rapidly across the sea surface are commonly assigned names associated with "jumping," "crossing," or "flying," whereas fish inhabiting coral crevices are given names carrying meanings such as "guardian" or "watcher." These naming practices illustrate that fishermen recognize not only the physical forms of fish but also their behavioral patterns and ecological habitats. Fikret Berkes explains that local ecological knowledge is the result of long-term community observations of the environment, transmitted across generations through cultural practices and language.

Within the context of Maluku coastal communities, the ecological knowledge embedded in fish lexicons serves practical functions in fishing activities. Fishermen use specific local terms to determine fishing grounds, appropriate fishing gear, and the seasonal occurrence of particular fish species. For example, local terms referring to pelagic fish are often associated with certain monsoon seasons and migratory patterns in open waters. Such knowledge enables fishermen to make accurate and efficient decisions during fishing activities. Beyond its practical function, the ecological lexicon also reflects the harmonious relationship between communities and the marine environment. Language becomes a medium for transmitting ecological values that encourage communities to understand marine resources more wisely. Einar Haugen states that the relationship between language and the environment is reciprocal because environmental changes can influence language, while language simultaneously functions as a means through which humans understand and manage their environment. Thus, the naming of fish and marine biota within Maluku society functions not merely as a form of linguistic identity but also as documentation of traditional ecological knowledge. Documenting such lexicons is essential to ensure that the local knowledge of coastal communities remains preserved and can continue to serve as a valuable source for education, research, and culturally based marine resource management.

Variations of Fish Names Across Coastal Regions

The linguistic diversity of Maluku has resulted in the emergence of different local names for the same fish species. These variations demonstrate that language develops in accordance with the history, culture, and ecological experiences of local communities (Hiariej & Hehanussa, 2025). For example, *Katsuwonus pelamis* is known as "Sura" on Buru Island, "Sulu" on Seram Island, and "Cakalang" in Ambon. Similarly, *Lutjanus malabaricus* is referred to as "Batu Karang" in Haruku and "Lete" in West Seram. Such differences not only reflect linguistic variation but also reveal how communities interpret the characteristics of fish according to their respective local contexts. Historical factors have also influenced the formation of fish-name variations in Maluku. Contacts between coastal communities and foreign traders, including the

Portuguese, Dutch, Arabs, and Japanese, introduced a number of foreign terms that were later adapted into local languages. As a result, some fish names contain borrowed linguistic elements that enrich the maritime lexicon of Maluku communities. In interregional trading activities, these naming variations often require fishermen to adjust the terminology they use in order to avoid misunderstandings. Therefore, understanding variations in local lexicons becomes important not only in social interactions but also in fisheries data management and communication. The documentation of fish-name variations across coastal regions is essential for preserving the continuity of local knowledge within Maluku communities. In addition to serving as an effort to preserve regional languages, such documentation can also provide valuable data for studies in linguistics, anthropology, and fisheries science.

CONCLUSION

The lexicon of fish and marine biota used by the people of Maluku constitutes an important part of the region's maritime cultural heritage and embodies local ecological knowledge. The naming of fish functions not merely as species identification but also represents community observations regarding color, body shape, behavior, habitat, and seasonal occurrence of fish. Thus, language serves as a medium for preserving traditional knowledge that has emerged through the interaction of coastal communities with the marine environment. The diversity of fish names across coastal regions reflects the linguistic and cultural richness of Maluku communities. These variations are influenced by regional languages, histories of cultural contact, and the ecological experiences of local societies. The documentation of fish and marine biota lexicons is therefore essential as an effort to preserve regional languages while simultaneously protecting traditional ecological knowledge that is increasingly threatened by modernization. Studies on maritime lexicons provide important contributions to the development of linguistics, anthropology, and fisheries science. Furthermore, the results of such documentation can be utilized as educational resources, as a means of strengthening the cultural identity of coastal communities, and as a foundation for developing marine resource management policies based on local knowledge.

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