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Ecolexicon of Fisheries in Culture of the Nemberala Community, West Rote District, Rote Ndao Regency, East Nusa Tenggara Province

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ABSTRACT

Rote language is a regional language used by the people of Nemberala Village, West Rote District, Rote Ndao Regency, East Nusa Tenggara Province, Indonesia. Some fisheries lexicons in the Rote language are less well known by the younger generation. These fisheries lexicons can be lost if no conservation efforts are made. The Nemberala community has a unique culture to generate income. The aim of this study is to document the Rote language fisheries lexicon, along with its taxonomy and culture related to the sea. This research has two benefits: first, to add to the vocabulary of the Rote language dictionary; and second, to provide a global reference related to the vocabulary of the sea. Data collection was carried out by interviewing four informants. The process of data triangulation was employed through informants' confirmation of the initial findings. The selection of four informants, who were native Rote speakers over 40 years of age, was determined by their capacity to provide valid data. Interviews employed recording techniques with electronic devices. Data analysis techniques were carried out by data condensation, data presentation, and drawing conclusions. The results of this study indicate that there are 160 ecolexicons related to fishing in the Rote language. This study also found out uniqueness of the culture of the Nemberala community in utilizing sea conditions. In the afternoon, the sea water usually recedes, so that part of the seabed is visible and used for growing seaweed.

Keywords: Fishery; Lexicon; Maritime; Rote Language; Taxonomy

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1. Introduction

In recent decades, linguistic research has predominantly focused on the internal structures of language and the complex relationships among language, society, and culture. However, in light of increasing environmental issues, many scholars have begun to integrate ecological theories into linguistic studies ^[1,2]. This integration investigates the dynamic interactions between language and the environment from an ecological standpoint ^[3]. Linguistics linked to the environment (linguistic ecology) has become the focus of many language researchers ^[4]. Linguistic ecology, delves into the interrelationship between language and its surrounding environment, accentuating the social and natural factors that influence linguistic functioning, which is distinct from the field of linguistics ^[5]. Attention to linguistic ecology is paramount for comprehending the mechanisms and outcomes of language contact, particularly the associated social and cultural dynamics. Consequently, caution is necessary in extrapolating patterns from one context to another ^[6]. Fishing activities on Rote Island are not only driven by economic factors, but also by historical background ^[7].

One of the fields that focuses on ecollexicon research is the study of vocabulary related to semantics and the local cultural environment ^[8]. It is also important for understanding how people articulate their environmental experiences through the lexicon. For example, the marine ecollexicon in Barus categorizes terms into fauna, flora, and infrastructure, indicating a deep familiarity with the marine environment. Many marine environmental lexicons are divided into noun and verb lexicons ^[9]. This ecollexicon research, which is part of quite interesting ethnolinguistic studies, is also conducted in the linguistic domain of aquatic areas (rivers, lakes, or seas), referred to as the ecollexicon of fishery ^[10]. Such research is very feasible to conduct in Indonesia, a nation characterized by waterways and rivers. Communities residing around rivers and seas tend to have professions as fishermen, with livelihoods centred on fishing.

It is evident that small-scale fisheries play a pivotal role in the livelihoods, food and nutrition security, and overall well-being of coastal communities around the globe ^[11]. Fishermen, with their livelihoods derived from water, naturally possess a language related to the culture of fishing, including terms related to methods and tools for catching fish, situations or conditions during fishing, names of fish species, and so on. All concepts and linguistic terms fall within the ecollexicon of fishery. Nemberala Beach, located in Rote Barat District, Rote Ndao Regency, East Nusa Tenggara Province, Indonesia, is a fishing area where the fishermen of Nemberala operate. The governance of Nemberala coastal natural resources in Rote District Ndao

involves power struggles between foreign capitalists, the government, and local communities, impacting the area's development ^[12]. Most native people live as fishermen. These fishermen are grouped into a community that has a distinct language related to fishing practices. From the perspective of ecollexicon, the use of language in this community has not yet been studied, particularly regarding the meanings of words, concepts, and terms related to fishing. Although there have been some similar studies conducted, including the results of a Rote language dictionary, that dictionary does not specifically address fishing language. Therefore, this study presents novelty by focusing on the meanings of words, concepts, and terms that reflect the fishing world in Nemberala.

The meanings of words within a single domain can generate a set of meanings that are interconnected. This relationship can form taxonomies and meronyms. A taxonomy of meaning refers to the relationship of meaning between the ordinate and subordinate; meronymy, on the other hand, describes the relationship of meaning between the whole and its parts ^[13]. In this regard, the semantic study within a set of fishing lexicon in Nemberala can establish taxonomies and meronymies, focusing on the meanings associated with the characteristics of objects, concepts, or terms contained within that fishing lexicon in Nemberala.

The questions in this study are what ecollexicons are related to fisheries in Nemberala; what the taxonomy of these ecollexicons is; and what economic activities demonstrate the culture of the Nemberala community related to the sea. The purpose of this study is to identify and document ecollexicons related to fisheries; determine the taxonomy of these ecollexicons; and reveal economic activities that are part of the culture of the Nemberala community during the day when the seawater recedes and also when the seasons change. This study is useful for enriching the vocabulary of the Rote language dictionary and as an inspiration for other researchers to conduct research related to ecollexicons, especially in maritime areas around the world.

Some of the young people in Nemberala don't understand the Rote language used in fishing. If there is no effort to write down and protect this language, it might disappear. So it's really important to do this research. It will add to the words already in the Rote Language Dictionary and be a useful source of information for future research on this topic, especially in the maritime sector all over the world.

The novelty of this research is to present related lexicons related to fisheries. The results of this study can also complement the vocabulary of the *Kamus Bahasa Rote* ^[14]. On the other hand, these lexicons are preserved and incorporated into educational frameworks. This study also revealed the uniqueness of the culture of the Nemberala community in utilizing sea conditions. Some of the

Nemberala community utilizes the seabed when the sea water recedes to farm seaweed.

2. Literature Review

Indonesia is an archipelagic country with abundant fish resources and the second longest coastline in the world [15]. Hierarchically, *ecolexics* is part of *ecolinguistics*, and *ecolinguistics* is part of *interdisciplinary linguistics* [16]. *Ecolinguistics* associates linguistic aspects with the user's environment and its use, while *ecolexicons* associate the richness of vocabulary with the environment of the society and the culture of its users [17]. Thus, the focus of the study on *ecolexemon* is the relationship of a set of *lexemes* in the same social ecosystem [18]. The Indonesia archipelago is surrounded by the ocean that stretches from west to east and from north to south so that many residents around the shores work as fishermen. In fact, many fishermen are also domiciled on the outskirts of major rivers in Indonesia [19]. Thus, a study on *ecolexics* needs to be carried out, and so far there have been many publications of research results related to *ecolexics* in Indonesia [20–23]. The *ecolexicon* needs to be the centre of attention for linguistic research in Indonesia because Indonesia is a maritime country [10,24]. However, crowding still exists because the vocabulary/lexicon in the fishing community in Nemberala has not been analysed, especially those related to the meaning of each *lexeme* that is different from one another. The study, among other things, can be related to *lexicography* [14]. *Ecolexicon* studies can build the world of tourism and the creative economy [17].

The study of the *lexicon* in Nemberala is very important to carry out considering the lack of documentation of the analysis of the lexical meaning and the relationship between the *lexicon* and the Nemberalla community and culture or with the people of Kupang, NTT. In addition, the results of the study can also be used as teaching materials for local content in the scope of education and tourism in Kupang. Thus, nationally, it is necessary to form a research mosaic related to the *lexicon* related to services, from various areas of the fishing community in Indonesia.

3. Method

This study uses a qualitative descriptive method with *ecolinguistic* studies to explore more deeply the meaning and value of fishing *lexicon* in the cultural practices of the community. This study was conducted in Nemberala Village, West Rote District, Rote Ndao Regency, East Nusa Tenggara Province (NTT), Indonesia. Nemberala Village is famous for its beautiful beaches. Nemberala Beach has very abundant fish. Fishermen can catch fish easily, even with simple fishing equipment.

The data of this study are presented as a list of words or *lexicons* related to fisheries as a livelihood. In this study, it is important to note that fishing communities have special knowledge [25]. Researchers collected data in three ways: participant observation, interviews, and documentation. Participatory observation involved the researcher recording and directly observing how fishing culture practices. Researchers also actively participated as interviewers, focusing on fishing *lexicons*. Researchers interviewed 4 informants in depth. Researchers wrote and recorded it with electronic devices. The informant criteria were fishermen aged over 40 years, native speakers of Rote in Nemberala Village, and the ability to speak Indonesian. The collected data were checked for validity. If an informant doubted the data submitted, the researcher cross-checked the data with other informants.

Documentation involved researchers collecting and analyzing documents, books, articles, or historical records related to fishing *lexicons* by the people of Nemberala Village. Researchers found 160 fishing *lexicons* in the culture of the Nemberala community. These fishing *lexicons* are related to fishing equipment, activities, results, and natural phenomena.

The *lexicons* pertaining to fishing equipment, activities, products and natural phenomena reflect the profound relationship between language and environment in *ecolinguistics* [26]. The researchers analyzed the data by the following three methods: (1) coding, namely marking important keywords or themes that emerged from the results of interviews and observations; (2) categorizing themes, namely grouping data into categories related to fishing *lexicons*, based on their association with fishing equipment, fisheries activities, fisheries results, and marine phenomena and terms; and (3) interpreting the results, namely concluding how the *lexicons* are differentiated in their use.

To ensure the validity of the data, the researcher used triangulation techniques [27], namely comparing information obtained from various sources (interviews with various participants, direct observation, and documentation). In addition, the researcher checked the validity of the data by asking participants for confirmation of the initial findings of the study.

4. Results

This study found 160 *ecolexicons* related to fishing or the tradition of fishing in the community of Nemberala, Rote Ndao Regency. Based on the common meanings and distinguishing of the *ecolexicons*, four main categories were created: *ecolexicon* of fishing equipment, *ecolexicon* of fisheries activities, *ecolexicon* of fisheries results, *ecolexicon* of marine phenomena and terms.

4.1. Ecolexicon of Fishing Equipment

In this study, 55 lexicons related to fishing equipment were obtained. The lexicons are as follows (**Table 1**).

4.2. Ecolexicon of Fisheries Activities

In this study, 38 lexicons related to fisheries activities were obtained. The lexicons are as follows (**Table 2**).

Table 1. Ecolexicon of fishing equipment.

No.	Lexicon	Description
1.	<i>ofa pua</i> 'fishing boat'	<i>Ofa pua</i> is a boat for catching fish equipped with a drag net. The net will be pulled onto the boat when the fish have been caught.
2.	<i>ofa ana; papalele</i> 'small boat'	<i>Ofa ana</i> is a simple small boat used for fishing.
3.	<i>lete-lete; jakung</i> 'outrigger ship'	Outrigger ship is a small ship with bamboo or wood installed on the left and right of the ship in the shape of wings. The outrigger functions to regulate balance so that the ship does not easily capsize.
4.	<i>eni; lunas</i> 'keel'; 'long beam at the bottom of the ship'	<i>Eni</i> or <i>lunas</i> is the lower beam of the ship or the base that is long from front to back.
5.	<i>pemaro</i> 'linggi'	Pemaro functions to unite the two sides of the ship's hull. Pemaro is made of wood and is curved at the stern of the ship.
6.	<i>stir kemudi</i> 'ship's rudder'	The ship's rudder is made of wood.
7.	<i>uli</i> 'rudder leaf'	Uli is made of planks and is located at the bottom of the ship.
8.	<i>ofa ambu</i> 'outer body of the ship'	<i>Ofa ambu</i> is made of planks.
9.	<i>la hou</i> 'sail mast'	A sail mast is a vertical mast on a boat or ship that functions as the main support for the sail.
10.	<i>jibom</i> 'mainsail support pole'	<i>Jibom</i> is a pole used to support the mainsail.
11.	<i>Raja board</i> or <i>eni board</i> 'bottom board of the ship'	The <i>eni</i> board is the first board which is the bottom board of the ship.
12.	<i>ri naka</i> 'anchor rope tying pole'	<i>Ri naka</i> is made of wood to tie the anchor rope.
13.	<i>bordu</i> 'plywood on the ship's hull'	Bordu is plywood on the ship's hull that extends from the front to the back/final layer of the ship's hull.
14.	<i>ume ana</i> 'houseboat'	A houseboat is a house that protects fishermen from rain or hot weather.
15.	<i>lala</i> 'roof of a houseboat'	<i>Lala</i> is a roof covering a houseboat that functions to protect against sunlight and rain.
16.	<i>tatana</i> 'hatch cover'	A <i>tatana</i> is a cover for storing fish.
17.	<i>nggadi</i> 'ship construction'	<i>Nggadi</i> is a ship construction that plays a role in withstanding pressure from all directions, especially external pressure loads.
18.	<i>senta</i> 'wood that strengthens the keel'	<i>Senta</i> is a long piece of wood inside the ship's hull along with ivory that serves to strengthen the keel.
19.	<i>ne'e lalangga</i> 'deck 'ship floor'	<i>Ne'e lalangga</i> is the floor of the ship.
20.	<i>fodu</i> 'ship's cheek'	<i>Fodu</i> is a curve on the hull of a ship.
21.	<i>ofa ikon</i> 'stern'	<i>Ofa ikon</i> is the back of the ship or the stern.
22.	<i>kapi</i> 'food vessel'	<i>Kapi</i> is a vessel made of palm leaves that functions to store food when fishing in the sea.
23.	<i>rarali tasi</i> 'small trawl fish trap'	Rarali Tasi is a woven vessel used to hold cooked seafood to be eaten together on the ship.
24.	<i>tali nafu</i> 'anchor rope'	In the past, people made <i>tali nafu</i> by spinning <i>gewang</i> leaves. Nowadays, people can spin using nylon rope.
25.	<i>ndai</i> 'small trawl'	<i>Ndai</i> is a small trawl made of nets.
26.	<i>nggoe</i> 'fish arrow lock'	<i>Nggoe</i> is a tool to lock fish arrows so that the fish does not escape.
27.	<i>bessi</i> 'single-edged fishing spear'	<i>Bessi</i> is a single-edged spear used to catch fish.
28.	<i>sefe</i> 'paddle'	<i>Sefe</i> is an oar made of wood and used to row or move the ship.
29.	<i>huhundu</i> 'string wood'	<i>Huhundu</i> is a wood used to wind fishing line.
30.	<i>doluyisi</i> 'hook'	<i>Dolusi</i> is a hook made of iron. In ancient times, <i>dolusi</i> was made from bent nails and then dipped in sugar and water.
31.	<i>enge</i> 'ballast'	<i>Enge</i> is a weight on fishing gear and trawls, which is in the form of a ring made of lead.
32.	<i>gamu</i> 'float'	<i>Gamu</i> is a float made of light wood, such as dried kapok wood. This float can be purchased at the store
33.	<i>mataboa</i> 'diving goggles'	<i>Mataboa</i> are goggles for diving.

Table 1. Cont.

No.	Lexicon	Description
34.	<i>sisiro uu</i> 'fish arrow'	<i>Sisiro uu</i> is a fish arrow made of wood and iron. On the <i>uu</i> side there is rubber which functions to remove/tie the iron (arrow) and a rope which connects the iron and the arrow handle.
35.	<i>nali susuno</i> 'fishing spear tip hook'	<i>Nali susuno</i> is a tool for hooking the tip of a fishing spear.
36.	<i>sisiro lima</i> 'fish arrow handles'	<i>Sisiro lima</i> is the handle on a fish arrow.
37.	<i>rama</i> 'fish spear'	Rama has more than one spearhead. Rama is made of iron with the tip of the rama spearhead like a thorn or needle.
38.	<i>rama isi</i> 'fish spearheads'	<i>Rama isi</i> are made of iron.
39.	<i>rama hau</i> 'spear pole'	<i>Rama hau</i> is a spear pole made of wood.
40.	<i>mina</i> 'fuel'	Fishing boats can move using outboard engines with diesel or diesel fuel.
41.	<i>lepong nggees</i> 'food supplies'	Food brought by fishermen as supply when going out to sea.
42.	<i>bo'boit</i> 'drinking vessel'	A drinking vessel made from <i>dilak</i> fruit and the mouth is made of bamboo.
43.	<i>mbisa tasi</i> 'fish vessel made from palm leaves'	Vessels are made of palm leaves. The vessels function to store fish when fishermen catch fish without a boat.
44.	<i>ko'o ana</i> 'small vessel for storing bait'	<i>Ko'o ana</i> is a small vessel made of palm leaves which functions to store bait.
45.	<i>naka</i> 'anchor'	In ancient times, anchors were made of wood and stone.
46.	<i>puat</i> 'net/trawl'	Nowadays, anchors are made of iron.
47.	<i>nggone</i> 'fish arrow lighter/lock'	<i>Puat</i> is one of the tools for catching fish.
48.	<i>hahani</i> 'bait'	<i>Nggone</i> is a tool to lock a fish arrow so that it does not come loose.
49.	<i>lutu</i> 'fish trap shaped like a stone fence'	Bait can be small fish, squid, etc.
50.	<i>a'afi</i> 'fish trap'	<i>Lutu</i> is a fish trap made traditionally by arranging rocks to form a fence.
51.	<i>fe'di</i> ; bubu	<i>A'afi</i> is a fish trap made from rope and palm leaves'. <i>A'afi</i> is used together with <i>lutu</i> .
52.	<i>te</i> 'spear'	<i>Fe'di</i> is a fishing tool made of woven bamboo. <i>Fe'di</i> is one of the traditional fishing tools.
53.	<i>tali manae</i> 'big string'	<i>Te</i> is a fish spear made of iron/wood with one spearhead.
54.	<i>tali ana</i> 'small string'	<i>Tali manae</i> is a large string for fishing for big fish.
55.	<i>siet</i> 'sewing needle for trawls'	<i>Tali ana</i> is a small string for fishing for small fish.
		<i>Siet</i> is a needle for sewing trawls made of bamboo and wood.
		Currently, the <i>siet</i> is made of plastic and can be purchased at stores.

Table 2. Ecolexicon of fisheries activities.

No.	Lexicon	Description
1.	<i>manatasi le</i> 'fisherman'	<i>Fisherman</i> or fish seeker at sea.
2.	<i>mataros</i> 'crew'	<i>Mataros</i> are crew who help fishermen catch fish.
3.	<i>mana danggan uu</i> 'fish buyer'	<i>Mana danggan uu</i> is a person who buys fish.
4.	<i>papalele</i> 'fish seller'	<i>Papalele</i> is a term for people who sell fish.
5.	<i>mana ndui oe</i> 'drawing water on a ship'	<i>Mana ndui oe</i> is the term for a person who draws water on a ship.
6.	<i>mana so</i> 'trawl tailor',	<i>Mana so</i> is the term for a person who sews torn trawls.
7.	<i>mana hasa uu</i> 'fish consumer'	<i>Mana hasa uu</i> is the term for people who buy fish and take it home.
8.	<i>reu tasi</i> 'going to sea by more than one person'	<i>Reu tasi</i> is going to sea to fish which is done by many people.
9.	<i>neu tasi</i> 'going to sea alone'	<i>Neu tasi</i> is going to sea to fish by one person
10.	<i>tasi bali</i> 'fisherman returning home from the sea'	<i>Tasi bali</i> is the name for fishermen returning home from fishing in the sea.
11.	<i>pandara</i> 'anchored'	<i>Pandara</i> is the anchoring of a ship due to extreme weather. Fishermen anchor their ships by tying two anchors in front and behind when the weather is extreme.
12.	<i>nafu</i> 'anchor'	<i>Nafu</i> is the usual way of anchoring a ship. Fishermen anchor their ships by tying only one anchor in front.

Table 2. Cont.

No.	Lexicon	Description
13.	<i>hoi</i> 'to dry'	<i>Hoi</i> is drying fish, trawls, wood etc.
14.	<i>na'a babonggo</i> 'circle'	<i>Na'a babonggo</i> is forming a circle when releasing the net.
15.	<i>mata rapu</i> 'making grout'	<i>Mata rapu</i> is the process of tidying up the joints between boards in making grout.
16.	<i>so puat</i> 'sewing the trawl'	<i>So puat</i> is the process of sewing the trawl.
17.	<i>nggari dolu</i> 'throw the fishing rod into the sea'	<i>Nggari dolu</i> is throwing a fishing rod into the sea to catch fish.
18.	<i>lea dolu</i> 'pulling the rod'	<i>Lea dolu</i> is pulling the rod to catch the fish that has been caught.
19.	<i>hundu dolu</i> 'rolling the fishing rod'	<i>Hundu dolu</i> is rolling or pulling the fishing rod. This depends on the fishing gear used, whether it is pulled or rolled.
20.	<i>lolo puat</i> 'throwing a net'	<i>Lolo pua</i> is throwing a net into the sea as one way to catch fish.
21.	<i>lea puat</i> 'pulling the net'	<i>Lea hendi ofa</i> is to pull a ship to land for servicing.
22.	<i>mbo'i naka</i> 'throw anchor'	<i>Mbo'i naka</i> is throwing anchor into the sea when the ship is about to dock.
23.	<i>lea hendi ofa</i> 'to pull a ship to land'	<i>Lea hendi ofa</i> is to pull a ship to land for servicing.
24.	<i>nalole ofa</i> 'repairing a ship'	<i>Nalole ofa</i> is repairing a damaged ship.
25.	<i>lea ofa tasi neu</i> 'pulling a ship from land to sea'	<i>Lea ofa tasi neu</i> is pulling a ship to sea after the ship has been serviced. The ship is ready to go to sea.
26.	<i>kai</i> 'anchor stuck or hook stuck'	<i>Kai</i> is a word for an anchor or hook stuck in a rock.
27.	<i>tao rama</i> 'making a stick'	<i>Tao rama</i> is making a stick for an arrow or spear.
28.	<i>ndui oe</i> 'drawing water on a ship'	<i>Ndui oe</i> is drawing water on a ship if the ship takes on a lot of water.
29.	<i>sembo</i> 'selling fish in the middle of the sea'	<i>Sembo</i> is selling fish in the middle of the sea. This buying and selling can be done by barter, for example fish are exchanged for coconuts, sugar water, chicken, rice, and others.
30.	<i>danggan</i> 'selling fish'	<i>Danggan</i> is selling fish paid for with money. The buyer must use money for payment, not barter.
31.	<i>naisi uu</i> 'releasing caught fish'	<i>Naisi uu</i> is releasing caught fish from a hook or net.
32.	<i>etu hendi dolu</i> 'broken fishing line'	<i>Etu hendi dolu</i> is a broken fishing line caused by fish getting caught on other objects.
33.	<i>ofa naoe</i> 'leaky ship'	<i>Ofa naoe</i> is a leak in the hull of a ship that can cause the ship to take on water.
34.	<i>ofa ndui oe</i> 'water enters the ship'	<i>Ofa ndui oe</i> is the entry of water into the ship, either caused by a leak or large waves.
35.	<i>ranggo</i> 'tying a hook'	<i>Ranggo</i> is tying a hook to a rope.
36.	<i>ofe</i> 'unloading fish'	<i>Ofe</i> is unloading fish from a fishing boat to be sold to fish traders, companies, or fishing docks.
37.	<i>ralole ova</i> 'ship service through collective work'	<i>Ralole ova</i> is a ship service carried out by many people.
38.	<i>naondah uu</i> 'unloading fish from large ships'	<i>Naondah uu</i> is unloading fish from large ships to ships to be sold to fish traders.

4.3. Ecolexicon of Fisheries Results

In this study, 46 lexicons related to result fishing. The lexicons are as follows (Table 3).

4.4. Ecolexicon of Marine Phenomena

In this study, 21 lexicons related to natural phenomena of fisheries or seas. The lexicons are as follows (Table 4).

Table 3. Ecolexicon of fisheries results.

No.	Lexicon	Description
1.	<i>kau</i> 'grouper'	Grouper is a fish that can live in fresh water or in the sea and has scales. Grouper has poison in its body.
2.	<i>kau mbilas</i> 'red grouper'	Red grouper is one type of grouper fish that is dark reddish brown on the top of the head and body, and pale pink on the bottom.

Table 3. Cont.

No.	Lexicon	Description
3.	<i>kau nggeok</i> 'black grouper'	Black grouper is a type of grouper that is large, black in color with white or yellow spots.
4.	<i>tongkol</i> 'tunny'	Tunny is a type of small tuna fish that has a long body, no scales, is gray in color, and has thick flesh.
5.	<i>ndane</i> 'red snapper'	Red snapper is a type of snapper fish that has a large, long, and wide, oval body.
6.	<i>noak; gergahing</i> 'type of flat and wide fish'	<i>Noak</i> is a type of flat and wide fish. <i>Noak</i> fish are often found in shallow waters. This fish has white meat and a soft texture.
7.	<i>rusu</i> 'white snapper'	White snapper is a type of snapper that has an elongated body shape, a large mouth, and a long upper jaw. White snapper has dark or light silver ctenoid scales.
8.	<i>manoriu</i> 'marlin'	Marlin fish is a type of fish that has a sharp snout like a spear. The snout functions to stab its prey and split the water flow so that the marlin can move quickly.
9.	<i>tengiri; king fish</i> 'mackerel tuna'	Mackerel tuna is a type of bony fish that has a long, flat body, a slightly pointed snout, a wide mouth, and sharp and strong teeth on the upper and lower jaws.
10.	<i>hehei</i> 'lobster'	Lobster is a marine animal that has two stomachs in its body.
11.	<i>nidu'du</i> 'mangrove crab; mud crab'	Mangrove crabs have bodies covered by round and thick shells. The color is almost the same as the color of mud. The claws are large. Mangrove crabs can be found in mangrove forests which usually grow and develop in coastal areas.
12.	<i>bolasu</i> 'napoleon wrasse'	Napoleon wrasse is a large reef fish. Napoleon wrasse is found in coral reefs.
13.	<i>boarusu</i> 'mackerel'	Mackerel has a relatively small body, lives in groups on the sea surface. Mackerel is still related to mackerel.
14.	<i>pa'do</i> 'octopus'	Octopus is a sea animal that has eight arms, no outer shell, can change color, and has a sharp beak to catch and bite prey.
15.	<i>iyaume</i> 'sand skin'	Sand skin fish has a flat and wide body, small mouth, small scales, brown gray color.
16.	<i>nafi</i> 'sea cucumber'	Teripang is a type of sea cucumber.
17.	<i>beto</i> 'barracuda'	Barracuda is a fish with a large and long body. Barracuda has smooth scales.
18.	<i>parang-parang; layur</i> 'ribbon fish'	Ribbon fish is a sea fish that is long and slender. Ribbon fish can be processed into salted fish and fishing bait.
19.	<i>hehedu</i> 'anchovies'	Anchovies are a group of small sea fish, greenish silver or bluish in color, with blunt snouts, small, sharp teeth.
20.	<i>nggela tae</i> 'zebra shrimp'	Zebra shrimp are dwarf freshwater shrimp. They eat algae and rotting plants.
21.	<i>nus</i> 'squid'	Squid is a type of sea fish that belongs to molluscs. Squid releases black liquid when attacked.
22.	<i>matanggeok</i> 'sea urchin'	<i>Matanggeok</i> is a black sea urchin with long hair.
23.	<i>tik</i> 'sea urchin'	<i>Tik</i> is a sea urchin with smooth and short hair.
24.	<i>ronggo</i> 'sea urchin'	Sea urchins have short, rough hairs.
25.	<i>nurat; baronang</i> 'rabbit fish'	Rabbit fish is a type of saltwater fish with thick and tasty flesh. Rabbit fish are golden yellow, white, black, and brownish in color. Rabbit fish are plant-eating fish.
26.	<i>hai</i> 'stingray'	Stingray is a type of sea fish with a flat body, long tail, and spines that are used as weapons.
27.	<i>tongga</i> 'sand shark'	Sand shark is a type of fish found in shallow waters, on tropical sea coasts, and in temperate climates. Sand sharks are brown or gray on top and pale on the bottom.
28.	<i>iu</i> 'shark'	A shark is a type of sea fish, which eats fish and other sea animals, is torpedo-shaped, scaly, has small spines that point backwards, and has many teeth.
29.	<i>uu lamat</i> 'flying fish'	Flying fish are ray-finned fish. The way fish fly is by pushing themselves out of the water. The pectoral fins that resemble wings are used for gliding.
30.	<i>lema</i> 'eel'	Eel is a fish that is long like a snake, has slippery skin, lives in mud or water.
31.	<i>langga</i> 'fish head'	The fish head is the head part of the fish's body. On the head of the fish there are gills, eyes and mouth.

Table 3. Cont.

No.	Lexicon	Description
32.	<i>mata deke</i> 'fish eyes',	The eyes of fish are one of the senses that function to see when looking for food and avoiding predators.
33.	<i>bafa</i> 'fish's mouth'	The fish's mouth functions as a place for food to enter.
34.	<i>nudu</i> 'fish snout'	The fish snout is the long mouth of the fish.
35.	<i>nggara</i> 'gill'	Gills are a tool for breathing in fish, shrimp, etc.
36.	<i>kokohake</i> 'protect the fish's head'	The gill cover functions to protect the fish's head and regulate the flow of water when breathing.
37.	<i>sirip</i> 'fins'	Fish fins function as a means of movement and stabilization of the fish's body.
38.	<i>bombi</i> 'shark dorsal fin'	The shark dorsal fin is the fin located on the shark's back. These fins are used to maintain balance and help when the shark suddenly turns.
39.	<i>una</i> 'scales'	Scales are hard layers of skin with flakes on fish, snakes, etc.
40.	<i>rui re'bo</i> 'bones'	Bones are the bone tissue in fish. Fish bones support the core muscles without inhibiting their mobility.
41.	<i>iko</i> 'tail'	The tail is the rearmost part of an animal's body.
42.	<i>telo</i> 'eggs'	Fish eggs are a collection of eggs, both internal and external, released by fish.
43.	<i>tei</i> 'intestine'	The intestine is a tool for digestion of food in the stomach which is long and circular in shape.
44.	<i>eru</i> 'bile'	Bile is a substance produced by the liver. Bile is useful for digesting fat.
45.	<i>rumput laut</i> 'seaweed'	Seaweed is one of the marine plants that live on the seabed. Seaweed after being processed can be used for mixed drinks.
46.	<i>kerang</i> 'shellfish'	Clams are soft-bodied shelled animals, usually found in the sea or on the beach.

Table 4. Ecolexicon of marine phenomena.

No.	Lexicon	Description
1.	<i>tasi lu</i> 'high tide'	High tide is the event of rising sea levels.
2.	<i>lu te'er</i> 'the sea water is full'	The sea water rises and recedes again.
3.	<i>tasi ha'l</i> 'low tide'	Low tide is the event of the sea level falling. The sea water is starting to recede.
4.	<i>lu oe anan</i> 'high tide'	<i>Lu oe anan</i> is a term used to refer to sea water starting to rise.
5.	<i>tasi meti</i> 'the water has receded'	<i>Tasi meti</i> is a term used to refer to the sea water having receded.
6.	<i>macabao</i> 'shallow'	Shallow is not deep sea water.
7.	<i>roma</i> 'deep'	<i>Roma</i> is a term used to refer to deep sea water.
8.	<i>karoma</i> 'very deep'	<i>Karoma</i> is a term for very deep water.
9.	<i>re ana</i> 'small waves'	<i>Re ana</i> are small waves that are usually found not far from the beach.
10.	<i>re manae</i> 'big waves'	<i>Re manae</i> are big waves that can be found in the middle of the sea or on the beach.
11.	<i>tasi namue</i> 'strong current'	<i>Tasi namue</i> is a very strong ocean current.
12.	<i>golobo</i> 'small fish caught in the net'	When throwing the net into the sea, sometimes there are small fish that get caught and carried away by the big net.
13.	<i>rou</i> 'not getting any fish'	<i>Rou</i> is a term to describe the condition of getting few or no fish at all.
14.	<i>rou-rou</i> 'not getting any fish at all'	<i>Rou-rou</i> is a term to describe the condition of not getting any fish at all.
15.	<i>fula sine</i> 'bright moon',	<i>Fula sine</i> is a term to refer to a bright moon.
16.	<i>fula hatu</i> 'dark moon'	<i>Fula hatu</i> is a term to refer to a dark moon or even an invisible moon.
17.	<i>hahae tasi</i> 'resting from the sea'	<i>Hahae tasi</i> is a term to refer to fishermen taking a break from the sea due to the stormy season.
18.	<i>fai sangguanin</i> 'storm season'	In the Nemberala Sea, the storm season occurs from late November to early March.

Table 4. Cont.

No.	Lexicon	Description
19.	<i>fai lino</i> ‘east wind season’	<i>Fai lino</i> is a term to refer to fishermen who are ready to go to sea. The east wind blows from March to May. In this season, the sea is calm and there are many fish.
20.	<i>teu tasi</i> ‘inviting to the sea’	<i>Teu tasi</i> is a term to refer to fishermen inviting to go to sea.
21.	<i>ndu fefetu</i> ‘eastern star’	<i>Ndu fefetu</i> is a term to refer to a star in the east.

4.5. Terms

Based on the data, there are 21 Rote Ndao language lexicons related to marine terms. **Table 5** is a list of terms related to the sea. The focus of research in this domain

encompasses not only the semantic interpretation of words, but also the role of words in reflecting human relationships with their natural environment, culture, and local identity [28].

Table 5. Terms related to the sea.

No.	Lexicon	Description
1.	<i>tasi lu</i> ‘high tide’	High tide is the event of rising sea levels.
2.	<i>lu te'er</i> ‘the sea water is full’	The sea water rises and recedes again.
3.	<i>tasi ha'l</i> ‘low tide’	Low tide is the event of the sea level falling. The sea water is starting to recede.
4.	<i>lu oe anan</i> ‘high tide’	<i>Lu oe anan</i> is a term used to refer to sea water starting to rise.
5.	<i>tasi meti</i> ‘the water has receded’	<i>Tasi meti</i> is a term used to refer to the sea water having receded.
6.	<i>macabao</i> ‘shallow’	Shallow is not deep sea water.
7.	<i>roma</i> ‘deep’	<i>Roma</i> is a term used to refer to deep sea water.
8.	<i>karoma</i> ‘very deep’	<i>Karoma</i> is a term for very deep water.
9.	<i>re ana</i> ‘small waves’	<i>Re ana</i> are small waves that are usually found not far from the beach.
10.	<i>tasi namue</i> ‘strong current’	<i>Re manae</i> are big waves that can be found in the middle of the sea or on the beach.
11.	<i>tasi namue</i> ‘strong current’	<i>Tasi namue</i> is a very strong ocean current.
12.	<i>golobo</i> ‘small fish caught in the net’	When throwing the net into the sea, sometimes there are small fish that get caught and carried away by the big net.
13.	<i>rou</i> ‘not getting any fish’	<i>Rou</i> is a term to describe the condition of getting few or no fish at all.
14.	<i>rou-rou</i> ‘not getting any fish at all’	<i>Rou-rou</i> is a term to describe the condition of not getting any fish at all.
15.	<i>fula sine</i> ‘bright moon’	<i>Fula sine</i> is a term to refer to a bright moon.
16.	<i>fula hatu</i> ‘dark moon’	<i>Fula hatu</i> is a term to refer to a dark moon or even an invisible moon.
17.	<i>hahae tasi</i> ‘resting from the sea’	<i>Hahae tasi</i> is a term to refer to fishermen taking a break from the sea due to the stormy season.
18.	<i>fai sangguanin</i> ‘storm season’	In the Nemberala Sea, the storm season occurs from late November to early March.
19.	<i>fai lino</i> ‘east wind season’	<i>Fai lino</i> is a term to refer to fishermen who are ready to go to sea. The east wind blows from March to May. In this season, the sea is calm and there are many fish.
20.	<i>teu tasi</i> ‘inviting to the sea’	<i>Teu tasi</i> is a term to refer to fishermen inviting to go to sea.
21.	<i>ndu fefetu</i> ‘eastern star’	<i>Ndu fefetu</i> is a term to refer to a star in the east.

5. Discussion

The fishermen of Rembang use a variety of fishing gear to catch fish, which they have developed themselves [29]. The Nemberala community relies heavily on boats as their primary means of sea transportation. Fishermen use different types of boats according to their function and purpose. Several lexicons show the diversity of the boat's functions. The table above shows the different meanings of these words.

The ecollexicon of fishing equipment in the culture of the Nemberala community is related to the equipment used in fishing activities, such as transport and fishing equipment. The Nemberala community uses a wide variety of fishing equipment. This reflects their deep knowledge and skills about the sea and their life as fishermen. The use of various types of boats or ships and fishing equipment shows the diversity of techniques and adaptation to marine environmental conditions. In addition, the tools for managing marine products and maintaining fishing equipment also reflect highly organized ways of

maintaining the sustainability of fishing activities in Nemberala.

The Nemberala community is very dependent on boats as their main means of sea transport, such as *ofa pua* and *ofa ana*. The Nemberala community also has a traditional boat known as the *lete-lete* lexicon. The *lete-lete* is a traditional boat with a larger outer frame to stabilize the boat, usually used in more open and choppy waters.

Figures 1–3 are sample figures related to the fishing ecolexicon.



Figure 1. *Ofa pua; lampara* 'Fishing Boat'.



Figure 2. *Ofa ana, papalele* 'Small Boat'.



Figure 3. *Lete-lete; jakung* 'Outrigger Ship'.

In Tobati Enggros, Papua, there are three types of boats used for fishing: semang-semang boats, kole-kole boats and jonson boats ^[30]. To further ensure safety when diving at sea, the Nemberala community has knowledge of the construction and mechanics of ships or boats.

The Nemberala also use a variety of techniques to catch fish. It is not only used to catch fish, but also to manage marine products, such as the gamu (**Figure 4**). Mataboa are goggles for diving (**Figure 5**). In bad sea and weather conditions, Nemberala fishermen may use special fishing equipment and techniques called nggoe and huhundu (**Figures 6 and 7**).



Figure 4. *Gamu* 'Float'.



Figure 5. *Mataboa* 'Diving Goggles'.



Figure 6. *Nggoe* 'Fish Arrow Lock'.



Figure 7. *Huhundu* 'String Wood'.

Fishermen in Nemberala are often involved in social interactions related to fishery. This is evident in the ecolexicon found. Fishermen have a lexicon that refers to different roles in fishing activities, for example *manatasi le*, *mataros*, *mana danggan uu*, *papalele*, *mana hasa uu*.

The Nemberala community carries out different stages of fishing activities. This activity is not only limited to fishing, but also includes a number of supporting processes. This can be seen, among other things, in the ecolexicon *reu tasi*, *tasi bali*, *so puat*, and *nalole ofa*.

Other activities related to fishing or going to sea are buying and selling fish catches. Some ecolexicons related to fish buying and selling activities are the *sembo*, *danggan*, *ralole ova*. This shows the value of togetherness and mutual cooperation in Nemberala's fishing activities.

The Nemberala community has activities to restore physical and mental health after sea activities that require a lot of energy and physical endurance. The lexicon to describe this activity is called *hahae tasi*.

The ecolexicon related to fishing activities in the culture of the Nemberala community describes various aspects of fishermen's lives and social interactions related to fisheries. These lexicons are not only related to the physical and technical work, but also reflect the social structure and togetherness in the society. Each stage of the fishing process, from the actors, fishing activities and trade to social activities such as repairing boats and resting after a day at sea, has a lexicon with deep meaning. This shows the importance of local knowledge and cultural traditions in maintaining the sustainability and well-being of the Nemberala fishing community.

Ecolexicons that refer to various roles or actors in fishery activities include all layers involved in the fishery process and its distribution, such as *manatasi le*, *mataros*, *mana danggan uu*; *papalele*, *mana hasa uu*. This shows that in the culture of the Nemberala community, the social structure in the world of fishing is well organized, with everyone having a clear role and function in the fish distribution chain, from catching to consumption.

The lexicon related to fishing activities in the culture of the Nemberala community is not only related to the activities before going to sea (covering the various stages carried out before going to sea), but also to the activities after going to sea (covering the commercial activities of fishing products and rest or self-care after heavy activities at sea), such as the lexicon *hahae tasi*, which shows the importance of physical and mental recovery for fishermen after carrying out activities that require a lot of energy and physical endurance.

The lexicon of fishery activities in the culture of the Nemberala community is replete with terms that not only relate to physical and technical work, but also reflect the social structure and sense of community within the community. Each phase in the fishing process, from the actors involved, the fishing activities, commerce, to social activities such as repairing boats and resting after a day at sea, has deep meanings. This underscores the significance of local knowledge and tradition in ensuring the sustainability and well-being of the Nemberala fishing community.

Indonesia's marine potential offers great opportunities to produce various types of commodities from its natural resources^[31]. Most of the major provinces in Indonesia are centers of fisheries production^[32]. The ecolexicon used by the Nemberala community in relation to fishery products includes various species of fish, marine organisms and the community's understanding of fish body parts. The Nemberala community has a thorough knowledge of the different types of fish found in the surrounding sea. The Nemberala community has an ecolexicon of *kau*, *kau*

mbilas, *tongkol*, *ndane*. In addition, the community of Nemberala also knows the fish *hehei*, *beto* and predatory fish.

In addition to fish, the Nemberala community knows and explores the potential of several other marine organisms that are an integral part of the surrounding marine ecosystem. This can be seen from several lexicons that refer to marine biota other than fish, namely *rumput laut*, *kerang*, *nafi*, *nidu'du*.

The dependence of the Nemberala community on various marine biota shows that they are not only dependent on fish, but also use marine biodiversity for their daily needs, both for direct consumption and for trade and other raw materials.

The ecolexicon of fisheries in the culture of the Nemberala community is indicative of the community's understanding of the types of fish, the anatomical structure of fish, and other marine biota in their waters. This knowledge enables the Nemberala community to differentiate between species based on their physical characteristics, and to utilise these fish in consumption and commercial activities. The Nemberala community's knowledge extends beyond mere identification of fish species; it encompasses a profound understanding of fish anatomy. The importance of fishermen's knowledge in hunting and fishing activities is reflected in several lexicons of fish body parts.

This is exemplified by the *kokohake* lexicon, which includes 'protect the fish's head', 'fins', 'bones', 'snout', *nudu*, and 'eggs'. The *kokohake* act signifies the protection or guarding of the fish's head, which is frequently regarded as a vital component of fishing activities. The fins are the part of the fish's body that is used to move and maintain balance while swimming. This knowledge is crucial for the practice of fishing, as it enables Nemberala fishermen to utilize all parts of the fish optimally, both for consumption and commercial purposes.

In addition to fish, the Nemberala community is also knowledgeable about and explores the potential of various other marine organisms that are an integral part of the marine ecosystem. This assertion is substantiated by the existence of numerous lexicons that encompass terms denoting marine biota beyond fish, including *rumput laut* 'seaweed', *kerang* 'shellfish', *nafi* 'sea cucumber', *nidu'du* 'mangrove crab'.

Seaweed is a potential marine biological resource. Seaweed has economic potential as food, feed and raw material for various industries^[33]. Seaweed, a type of marine plant, is frequently consumed as a foodstuff or utilized as a raw material for beverages and food products. Some people in Nemberala, in addition to working as fishermen, also farm seaweed. The culture of planting seaweed is quite unique. They take advantage of the sea conditions. In the afternoon, Eastern Indonesian Time at around 10.30 AM, the sea water recedes about 1 km from

the edge. The receding sea water lasts for approximately seven hours (until at 17.30 PM). After that the sea water rises or rises slowly until it reaches its peak at 21.30 PM. The receding sea water causes the seabed to be clearly visible. This condition is utilized by some people in Nemberala to plant seaweed on the seabed. Seaweed farming activities are carried out by men and women in Nemberala. To protect the seaweed plants, there is a ban on using fishing gear that can damage the seaweed plants. After reaching harvest age, the harvested seaweed is then dried on the beach until dry. The dried seaweed is then sold to be made into various processed foods or drinks.

Shellfish are another such group, and are defined by their hard outer shells, which are utilized for food or commercial purposes. *Nidu'du*, a term denoting a mangrove crab, refers to a species that inhabits the mangrove ecosystem. The crab is used for consumption and sale. The Nemberala community, which relies on various marine biota, demonstrates that its dependence extends beyond fish, encompassing the utilization of other marine biodiversity for daily needs, including consumption, commercial purposes, and raw materials for food production.

The Nemberala community has extensive knowledge about other marine biota, including shellfish, seaweed (Figure 8), and sea cucumbers. This finding indicates that the Nemberala community has a profound and holistic connection to the marine ecosystem. This underscores the significance of the marine ecosystem for the Nemberala community, particularly in terms of its economic, social, and cultural dimensions.



Figure 8. Seaweed drying.

Based on common meanings and distinguishing features, there are ecolexicons that include groups related to sea conditions, namely ebb and flow and weather conditions. Lexicons describing sea conditions are *tasi lu*, *tasi ha'l*, *tasi namue*.

In order to maintain their income in the face of seasonal change, it is imperative to cultivate alternative commercial activities as a strategic adaptation for fishermen in Nemberala, Rote Ndao^[34]. In the Nemberala Sea, the storm season occurs from late November to early March. The taxonomy of fishery ecolexicons consists of 160 lexicons. The taxonomy includes lexicons on fishing equipment, fishing activities, fishing results and marine natural phenomena. The equipment lexicon includes

lexicons of transport equipment and fishing equipment. Fisheries transport includes types of transport (3 lexicons) and parts of transport (18 lexicons) used to catch fish and other marine biota. There are 34 lexicons on fishing equipment. Meanwhile, lexicons related to fishing activities include actors (10 lexicons) and processes (28 lexicons). Lexicons about marine outputs include fish (fish species 30 lexicons and names of fish parts 14 lexicons) and marine biota 2 lexicons. Thus, the most common ecolexicon is the fishing equipment section with 55 lexicons. This is followed by 44 lexicons on fishing results, 38 lexicons on fishing activities and 21 lexicons on marine natural phenomena. This indicates that the Nemberala community's knowledge of the ecolexicon is more related to fishing equipment and fishing results. However, the community also has knowledge of marine natural phenomena, such as weather conditions, which can determine the results of their fishing activities.

The Nemberala people have a unique lexicon for describing the phenomenon of fishing and the marine environment. The Nemberala people possess a distinct lexicon that pertains to the ebb and flow of sea water. Illustrative examples include *tasi lu*, signifying 'high tide', *tasi ha'l*, denoting 'low tide', and *tasi meti*, signifying 'the water has receded'. This shows their understanding of the cycle of ebb and flow of seawater. This understanding forms the basis for sea-related activities. Lexicons pertaining to sea conditions, such as *macabao* for 'shallow', *roma'* for 'deep', and *karoma'* for 'very deep', are also recognized in their culture.

The Nemberala also have a special lexicon to describe weather phenomena. The lexicon *fula sine* 'bright moon' refers to the state of a bright or full moon. On bright moon nights, fishermen go out to sea because of better visibility and a more stable climate. This makes it easier for the fishermen to catch fish. The lexicon *fai sangguanin* 'storm season' refers to the storm season or bad weather season. During this season, the weather changes to be very bad, with strong winds and heavy rains that make fishing difficult. The Nemberala people are aware of these times and tend to avoid going out to sea to ensure their safety.

The existence of ecolexicons related to marine natural phenomena shows that the Nemberala community has an understanding of the tidal cycle, the weather and its influence on the success or failure of fishing. Marine natural phenomena represent a pivotal element exerting influence on the fishery activities of the Nemberala community. It is imperative for fishermen to take into account sea and weather conditions when planning and executing their fishing activities. The direction of ships or boats and the fishing gear used can be significantly affected by strong sea waves. Consequently, a comprehensive understanding of sea and weather conditions is paramount for the effective planning and execution of fishing activities.

The Nemberala community's ecolexicon of natural marine phenomena shows a very deep understanding of tides, currents and weather conditions that can affect fisheries activities. Terms such as *tasi lu*, *tasi ha'l* and *tasi namue* show how the Nemberala community use natural changes in the sea to determine the right time and place to go out to sea. Their knowledge of weather conditions, such as *fula sine* and *fai sangguanin*, is very important for their safety and success in fishery. Phenomena related to the rhythm of the surrounding nature become an integral part of everyday life in interaction with the sea.

6. Conclusions

This study highlights the importance of preserving the Rote language and maritime culture through the documentation of 160 fishery-related lexicons. Based on these findings, a taxonomy of fishery ecolexicons can be created, which includes lexicons about fishing equipment, fishing activities, fishing results and marine natural phenomena. The most frequently found ecolexicon is the fishing equipment section, with 55 lexicons. Then fishing results have 44 lexicons, fishing activities have 38 lexicons and natural/marine phenomena have 21 lexicons; marine biota have 2 lexicons. This shows that the Nemberala community's mastery of the ecolexicon is more related to fishing equipment and fishing results. However, the community also has knowledge of natural marine phenomena, such as weather conditions, which can affect the results of their fishing activities. In addition, this study also found the uniqueness of the Nemberala community in utilizing sea conditions. In the afternoon, the sea water usually recedes so that part of the seabed is visible, approximately 500 m from the edge. When the sea water recedes, some of the Nemberala community utilizes the seabed to farm seaweed.

This research carries the important implication of enriching the vocabulary of the younger generation in Nemberala, specifically regarding fisheries ecolexicon and maritime terms, thereby fostering a deeper understanding of their cultural heritage. While the study acknowledges limitations such as a small informant pool, narrow geographical scope, restricted coverage of marine biota terms, and a lack of data on language transmission and contextual variations, it provides a clear taxonomic framework for future research and supports education, community empowerment, and the recognition of valuable local ecological knowledge for sustainable practices. To further advance this area of study, future researchers could focus on morphological and syntactic analyses of the lexicon, expand the sample size, conduct comparative studies across maritime communities, develop more extensive linguistic variation analyses, and implement longitudinal research designs.

Author Contributions

Conceptualization, D.A., A.I. and L.I.D.K.; methodology, D.A., R.S. and F.Z.; software, D.A. and E.S.K.; validation, D.A., L.I.D.K. and E.S.K.; formal analysis, D.A., A.I., R.E.U., E.S.K., R.S., L.I.D.K., F.Z., B.A.S., R.H., E.M., J.E.; investigation, R.S., J.E. and F.Z.; resources, R.H., B.A.S. and J.E.; data curation, D.A., A.I., L.I.D.K. and R.E.U.; writing—original draft preparation, D.A., R.S., L.I.D.K. and F.Z.; writing—review and editing, F.Z., B.A.S., E.M. and R.H.; visualization, A.I., E.S.K. and L.I.D.K.; supervision, A.I., F.Z., E.M. and R.H.; project administration, R.E.U. and A.I.; funding acquisition, A.I. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

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