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ECOLOGICAL LEXICON IN THE ACEHNESE FOLKTALE PUTERI BENSU AND MALIM DEWA: AN ECOLINGUISTIC STUDY

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ABSTRACT
This study aims to identify, classify, and interpret the ecological lexicon in the Acehnese folktale *Puteri Bensu and Malim Dewa* through an ecolinguistic approach. Rich in cosmological narratives, the folktale preserves the collective memory of the Acehnese people regarding nature's spatial arrangement and the spiritual-ecological relationships between creatures. This qualitative ecolinguistic study views language as an integral part of the living ecosystem. Data were obtained from the written folktale through a listening method and note-taking technique, focusing on vocabulary, local terms, and environmental metaphors. The findings reveal four main ecological domains: fauna (birds and forest animals), flora (wild plants or *uteuen*), topography (rivers, lakes, and mountains), and cosmology (sky and heaven). Ideologically, this lexicon reflects the Acehnese people's ecocentric perspective, in which boundaries between human domestic spaces and sacred wilderness are strictly respected. Sociologically, the text conveys traditional environmental ethics, emphasizing that environmental destruction disrupts the natural order. This study concludes that the ecological lexicon in *Puteri Bensu and Malim Dewa* represents a cultural legacy of ecological intelligence preserved through Nusantara oral literature.

Keywords: *ecological lexicon; Acehnese folktales; princess Bensu and Malim Dewa; ecolinguistics, ecological intelligence*

INTRODUCTION
Language is not simply a universal means of communication, but rather a dynamic ecosystem that records traces of interactions between humans and their natural environment. Fill & Mühlhäusler (2001) state that language does not exist in a vacuum, but rather in a matrix of close interactions with the physical and psychological environment of its speakers. In the context of the *Malim Dewa story*, the richness of the flora and fauna lexicon is concrete evidence of how language records human dependence on nature. Changes in the environment directly affect the existence of the vocabulary or lexicon used by the speech community (Silalahi, 2019; Mbete, 2021). When an ecosystem is damaged or extinct, the lexicon associated with that ecosystem tends to disappear from society's collective memory (Handoko, 2020; Takwa, 2022). This phenomenon of the reciprocal relationship between language and the environment is at the heart of ecolinguistics, an interdisciplinary science that views language as a living part of the environment in which it lives.

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Over its development, ecolinguistics has divided its perspective into two main poles: Stibbe's critical analysis of environmental discourse and Haugen's ecological metaphor of language. According to Mbete (2013), language cannot be separated from the cultural and ecological terrains in which its speakers grow. Through an ecolinguistic perspective, we can map how a cultural community understands, utilizes, and preserves its natural surroundings. Therefore, an inventory of ecological lexicons is a crucial step in preserving the local wisdom embedded in an ethnic group's linguistic system.

One of the most authentic repositories of a rich ecological lexicon is oral literature, or folklore. Folktales are not merely bedtime entertainment, but rather cultural documents that record the harmonious (or disharmonious) relationships between past humans and their flora, fauna, and geographic landscapes. As noted by Mbete (2013), Takwa (2022), and Handoko (2020), literary texts contain ecological memories that reflect traditional societies' perspectives on nature as a sacred living space that must be maintained in balance. When folktales are rarely told, the ecological discourse within them is threatened with collective amnesia (Mbete, 2013).

The Acehnese people are known for their close connection to nature, a practice reflected in their diverse oral literature. One Acehnese folktale rich in ecological values and natural symbolism is the tale of Princess Bensu and Malim Dewa. This story not only depicts romance and magical adventures but also provides a descriptive landscape of Aceh's past natural environment, from naming forest vegetation types and describing water features (hydrology), to animal behavior. An examination of the ecological lexicon in this story is crucial for reconstructing the ecological understanding of ancient Acehnese society.

The study of ecological lexicon in oral literature also aligns with the findings of research conducted by Silalahi (2019) on ecolinguistics in Toba Batak folklore, which found that the natural lexicon functions not only as a setting but also as a symbol of morality and cultural identity of the community. This similarity indicates that Sumatran society in general has a pattern of high dependence on the natural world, which is then immortalized in the metaphorical structure of their language and the narrative structure of their folklore.

However, the current reality shows a wide gap between the younger generation and their local languages and the natural environment. Massive modernization and land conversion in the Aceh region have rendered many local terms related to nature (the ecological lexicon) unfamiliar to the current generation. Research conducted by Handoko (2020) confirms that the extinction of the ecological lexicon goes hand in hand with the degradation of the physical environment. When forests are converted to monoculture plantations or industrial areas, specific local words used to describe the details of their contents also lose their functional relevance in everyday communication.

In the context of the story of Princess Bensu and Malim Dewa, there is a rich variety of ecological lexicon, ranging from fauna and flora to abiotic elements typical of Aceh's topography. An ecolinguistic study of this text can reveal how this lexicon is classified into social, biological, and ideological dimensions, as the theory developed by Haugen (1972) and Stebbe (2020). This classification will reveal whether the presence of this folktale text constructs an ideology of nature conservation or vice versa.

Furthermore, the presence of ecological vocabulary in this text also reflects the Acehnese people's local wisdom in managing natural resources. The use of natural metaphors in dialogues between characters and the narrator's descriptions demonstrates the existence of

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customary laws and unwritten norms regarding the safe limits of human interaction with the wild. Acehnese oral literature implicitly teaches that excessive exploitation of nature will lead to cosmic imbalance, a moral message highly relevant to the current ecological crisis.

Although the story of Princess Bensu and Malim Dewa has been studied several times from a purely structuralist or didactic perspective, research specifically examining linguistic aspects related to the environment (ecolinguistics) remains very limited. Most research on Acehnese literature tends to focus on the theological or historical aspects of characterization. Therefore, this study aims to fill this scientific gap by focusing its analysis on the form, meaning, and function of the ecological lexicon contained within the story's text.

Based on the above background, this study, entitled "Ecological Lexicon in the Acehnese Folktale Puteri Bensu and Malim Dewa: An Ecolinguistic Study," is crucial. This research is expected to contribute not only theoretically to enriching the repertoire of descriptive linguistics and ecolinguistics in Indonesia, but also practically serve as a step towards language documentation *and* cultural revitalization. Preserving the ecological lexicon in this folktale is tantamount to preserving the green memory of the Acehnese people for the sake of environmental sustainability and future cultural identity.

METHOD

This study uses a descriptive qualitative approach by applying ecolinguistic analysis, a method that focuses on the reciprocal relationship between language (lexicon) and the natural environment that underlies it. The main data source in this study is the text of the Acehnese folktale *Puteri Bensu and Malim Dewa* . The research data are in the form of lingual units, either in the form of words, phrases, or expressions that contain ecological lexicon content (such as the names of flora, fauna, and abiotic/topographic elements typical of Aceh). The main instrument in this study is the researcher himself (*human instrument*) who is assisted by a data classification table to systematically map lexicon categories.

The steps of data collection and analysis were carried out in stages through three main phases. *First* , data were collected using the listening method with note-taking techniques, namely reading the folklore text repeatedly and in depth to identify and record all the ecological lexicons that emerged. *Second* , the collected data were classified into three ecolinguistic dimensions according to Haugen and Stibbe's theory: (biological dimension: flora and fauna, social dimension: how the story characters utilize nature), and ideological dimension: rivers, mountains, streams) to see how nature is constructed in the text. *Third* , a contextual content analysis was carried out *to* reveal the meaning, function of local wisdom, and its relationship to the ecological conditions of the Acehnese people.

RESULTS AND DISCUSSION

Folktales act as stories that underlie our lives (stories we live by), shaping their speakers' ideologies toward nature; whether they position nature as an object of exploitation or a symbiotic partner (Stibbe, 2020). The lexicon of Princess Bensu and Malim Dewa as eco-friendly bait in this story reflects a folktale that supports environmental sustainability. The Acehnese folktale of Princess Bensu and Malim Dewa is rich in ecological lexicon.

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Flora Lexicon

In the Malim Dewa story, there are several findings of floral lexicon, including:

1. Gelime Mantu / Forest Orange (Citrus sp.): In the narrative, this fruit is used by Malim Dewa as an unusual fishing bait. Gelime Mantu is a local lexicon for a wild forest orange species that has a distinctive taste and aroma. Ecolinguistic Study: It is a specific ecological term that marks the richness of linguistic diversity . Its use as fishing bait in Malim Dewa's narrative shows the interactive relationship between language speakers and wild vegetation. This lexicon records the identification of the speech community with wild flora species that have specific names and functions outside the domestic domain.
2. Batang ni Uyem/Pine Tree (*Pinus merkusii*): Represents the dominant vegetation in the mountainous ecological region where the story takes place (Tanah Gayo/Central Aceh). The presence of this lexicon proves that Acehnese/Gayo folklore has high spatial authenticity. The narrative is not built on an abstract imaginary space, but is firmly rooted in the real ecosystem of the Sumatran mountains. Ecolinguistic Study: Acts as an ecosystem marker lexicon . The phrase/lexicon *Batang ni Uyem* in the Gayo/Acehnese language structure proves a close bond between the linguistic memory of the community and the mountain ecosystem. Ecolinguistically, if *the Pinus merkusii species* becomes extinct from the real environment, then *the Uyem lexicon* is at risk of experiencing linguistic extinction (*language/lexical loss*).
3. Firewood (Tropical Forest): A marker of the economic subsistence activities of the local community (the character Inen Keben). The activity of the character Inen Keben collecting firewood reflects a pattern of forest utilization based on traditional subsistence economy (*sustainable harvesting*). This data shows a form of local wisdom in utilizing non - *timber forest products* or only taking dead branches/trees. Ecolinguistic Study: This lexicon represents the grammar of subsistence interaction (*grammar of action*) between humans and the environment. In the narrative of *Puteri Bensu* (through the character Inen Keben), this lexicon marks the activity of utilizing forest products which is reflected in the daily vocabulary of the agrarian community.
4. Fragrant Flowers: Used in the aesthetic depiction of the original garden or Indrapura garden where the characters interact. The depiction of the fragrant garden in Indrapura represents a micro-landscape that is managed micro- ecologically to create beauty, comfort, and social interaction space. Ecolinguistic Study: A descriptive-aesthetic lexicon that forms a pattern of ideal environmental representation (*ideological representation of nature*). Language is used to encode the speaker's sensory impressions (smell/sight) of the beauty of the Micro-landscape (Indrapura garden).

Fauna Lexicon

In the story of Malim Dewa, there are several findings in the fauna lexicon, including:

1. Depik Fish (Rasbora tawarensis): An endemic fish species of Laut Tawar Lake that is ecologically implied as a major commodity and indicator of water sustainability in the story's ecosystem. Depik Fish is an endemic freshwater fish species that only lives in Laut Tawar Lake, Gayo Highlands. Ecolinguistic Study: This lexicon is a perfect example of an Endemic Ecological Lexicon. The presence of the Depik lexicon in the narrative text shows that the local language has a high precision power to name local endemic species. In Stibbe's ecolinguistic study, this lexicon contains a "beneficial

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discourse" that maintains the collective memory of the speakers about the vital status of the species' existence in Laut Tawar Lake.

2. Garuda Bird/Nurse: A symbolic and mystical fauna representation that acts as a trans-dimensional (heaven-earth/heavenly) transportation agent. The appearance of a giant/mystical bird (Garuda) or a beautifully feathered exotic bird (Nuri) acts as a connecting bridge between the underworld/earth and the upper world/heavenly (trans-dimensional). Ecolinguistic Study: This avifauna lexicon represents an ecological-cosmological metaphor . The Acehnese/Gayoese spoken language uses bird names to construct their understanding of the boundaries of airspace, agility, and agency of animals in their oral mythology.
3. Kurik/Ayam (Gallus gallus domesticus): Appears in cultural metaphors/local proverbs to describe the status of animal domestication in residential environments. The lexicon of kurik (chicken) which is present in the form of metaphors, expressions, or local proverbs reflects the ecological boundaries between wild spaces (wilderness) and residential/domesticated spaces (domesticated space). Ecolinguistic Study: Lexicon of domestic fauna integrated in local expressions/proverbs (idiomatic ecological expressions). This shows how the closest fauna environment (livestock) is absorbed into the linguistic cognition of society to form figurative structures and social norms in everyday communication.

The results of the ecolinguistic analysis of the folktales of Puteri Bensu and Malim Dewa show that the diversity of ecological lexicons *found* acts as a form of linguistic codification of the natural environment of the Acehnese and Gayo people. The flora lexicons such as *Batang ni Uyem* and *Gelime Mantu* and the endemic fauna lexicon Ikan Depik not only function as story-building elements, but also reflect the speakers' cognitive knowledge of their natural landscapes. Through the use of these lexicons, the Acehnese and Gayo folktales demonstrate a symbiotic relationship between language, thought, and the real environment in which the language is spoken, so that the preservation of these lexicons is directly proportional to the preservation of the local ecosystem.

Geo-Ecological Lexicon (Natural Landscapes)

1. Atu Pepangiren / Bathing Stones: The phrase/lexicon Atu Pepangiren combines geological elements (atu = stone) and ritual/self-cleansing activities (pepangiren = bathing). In the narrative, this feature becomes the main locus of intersection between the profane dimension (humans/earth) and the sacred dimension (celestial nymphs). Ecolinguistically, language not only names physical objects (stones), but also links these objects to socio-spiritual norms. The application of the *Pepangiren lexicon* to the geological features of rivers/ponds encodes the discourse that these water sources are not random spaces, but rather spaces whose cleanliness must be maintained and whose beauty must be respected. This lexicon demonstrates the existence of an ecological discourse between humans and water, where the geological features of rivers are positioned as a bridge of harmony between humans and the lower/higher realms.

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2. Buntul (Hill/Embankment): Typical topographic lexicons (such as *Buntul Temil* and *Buntul Kubu*) that indicate hilly geographic contours. *Buntul* is a typical micro-topographic lexicon of the Gayo language to refer to land contours in the form of small hills, embankments, or raised mounds of land (such as *Buntul Temil* and *Buntul Kubu*). The diversity of topographical lexics is shown by the presence of *the bungul lexicon* , demonstrating the level of precision of the local language in mapping land contours. The Gayo/Acehnese language does not only recognize the words "mountain" or "hill" in a generic way, but also has a specific lexicon (*bungul*) born from the experience of living in mountainous areas. The *bungul lexicon* attached to place names (*toponymy*) proves how the ecological memory of the community is transmitted through oral folklore, maintaining spatial knowledge across generations . This becomes a marker of navigation and geographic identity.
3. *Lot Tawar* (Gayo for Lake Laut Tawar) is the largest hydrological lexicon that is at the heart of the social, economic, and ecological life of the Gayo Highlands community. The name *Lot Tawar* is linguistically interesting because it combines the concepts of "Sea" (*lot*) and "Tawar" (*tawa*). Local speakers use the metaphor of "sea" to describe the vast expanse of water, but lock it with the attribute "tawar" to emphasize its function as a life-*sustaining water body* . In the story of *Princess Bensu* and *Malim Dewa* , *Lot Tawar* acts as a primary ecological referent. The entire lexicon of flora (*Batang ni Uyem* , *Gelime Mantu*) and fauna (*Ikan Depik*) flows and is interdependent on this hydrological landscape *of Lot Tawar* .

The presence of geo-ecological lexicons such as *Atu Pepangiren, Buntul,* and *Lot Tawar* in the folktales of *Puteri Bensu and Malim Dewa* demonstrates how the Gayo and Acehnese languages precisely capture the abiotic landscapes in which their communities reside. Typical topographic lexicons such as *Buntul* (mapping hills/embankments) demonstrate the richness of the speakers' spatial perception of the contours of mountainous terrain, while *Lot Tawar* acts as a macro-hydrological lexicon that supports the entire biotic life network in the narrative. Furthermore, the *Atu Pepangiren lexicon* demonstrates the sacralization of water space within the local language structure, where the geological features of rivers are given spiritual meaning to preserve their pristine beauty from destruction. Overall, these geo-ecological lexicons confirm that Acehnese/Gayonese folktales retain toponymic and traditional spatial memory that is invaluable for the preservation of local languages and environments.

CONCLUSION

An ecolinguistic analysis of the folktales of *Puteri Bensu and Malim Dewa* demonstrates that the traditional Acehnese/Gayo language possesses a rich lexical structure that precisely captures biodiversity. The lexicon of flora, fauna, and topography in these texts serves as an oral ecological document that teaches the ethics of sustainable use of nature. Conservation of these folktales is essentially a simultaneous effort to preserve both linguistic memory and the biological ecosystem that gave rise to them.

Based on the results of the ecolinguistic analysis, it can be concluded that the text contains a wealth of ecological lexicon *which* functions as a form of linguistic codification *of* the living environment of the speech community. This study found three main categories

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of ecological lexicon, namely: 1) Eco-Botanical Lexicon (Flora): Reflecting the richness of local vegetation and patterns of human subsistence interaction with nature, such as *Batang ni Uyem*, *Gelime Mantu* , *Kayu Bakar* , and *Bunga-bungaan Harum* ; 2) Eco-Zoological Lexicon (Fauna): Marking the level of linguistic precision in naming endemic species (*Depik Fish*), trans-dimensional mythological constructions (*Garuda/Nuri Bird*), and representation of domestication limits (*Kurik/Chicken*); 3) Geo-Ecological Lexicon (Natural Landscape): Encodes spatial perception and sacralization of abiotic features, such as *Lot Tawar* as a macro-hydrological center, *Buntul* as a typical topographic mapping of mountains, and *Atu Pepangiren* as the sacralization of water features.

The discovery of *these* lexicons proves that the Acehnese and Gayo languages in folklore function not merely as aesthetic narrative media, but also as repositories of local ecological knowledge (*indigenous ecological knowledge*) . Folklore records the tripartite symbiotic relationship between language, thought (*cognition*), and the real environment in which the speech community lives .

Implications

The findings in this study have significant theoretical, methodological, and practical implications, particularly within the framework of the synergy between language preservation and environmental conservation:

1. Linguistic Vitality and the Threat of Lexical Erosion
   From an ecolinguistic perspective, the loss of a species of flora or fauna, or the destruction of natural landscape features in the Aceh/Gayo region, is directly proportional to the threatened extinction of the ecological lexicons that represent them. If endemic species such as the *Depik Fish* disappear from Lake Laut Tawar or *the Batang ni Uyem vegetation* is degraded, these lexicons will lose their ecological references and gradually disappear from the linguistic cognition of the younger generation. Therefore, efforts to preserve local languages must be carried out in line with the protection of their actual ecosystems.
2. Revitalization of Local Languages Based on Ecoliterac.
   Practically, the ecological lexicon identified in the story of *Princess Bensu* and *Malim Dewa* can be used as basic material for compiling Indonesian language and literature teaching materials as well as local content (mulok) at the school level (junior high school/senior high school) . Through ecolinguistic-based reconstruction of folklore, language learning not only trains students' linguistic skills but also instills an awareness of green literacy (*ecoliteracy*). Students are invited to re-identify the names of plants, endemic animals, and local topography that have become unfamiliar in the era of modernization.
3. Ecological Discourse Restoration and Culturally Based Conservation.
   The expression of wisdom values in lexicons such as *Atu Pepangiren* (water sacralization) and the use of *firewood* (sustainable subsistence) proves that traditional communities have an environmentally friendly linguistic discourse (*beneficial discourse*). Local ecological knowledge codified in this language can be used as a socio-cultural foundation for local policymakers and environmental activists in formulating local wisdom-based nature conservation strategies in Aceh and the Gayo Highlands.

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