

The Narrative Construction of Ecological Identity in Selected Papuan Folktales: Traditional Ecological Knowledge and Bird Agency (Pembinaan Naratif Identiti Ekologi dalam Cerita Rakyat Papua Terpilih: Pengetahuan Ekologi Tradisional dan Agensi Burung)

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ABSTRACT

Bird narratives in Papuan indigenous folklore have received scholarly attention as repositories of ecological knowledge and as representations of relationships among humans, nonhuman beings, and the natural environment. However, previous studies have tended to examine Traditional Ecological Knowledge (TEK) and animal agency separately, leaving a limited understanding of how these perspectives intersect in the narrative articulation of ecological identity. This study examines how ecological identity is narratively articulated through the interaction between TEK and bird agency in five selected Papuan folktales. Employing an interpretive qualitative design and theory-driven textual analysis, the study analyses narrative episodes involving birds, humans, other nonhuman beings, and landscapes. The findings show that birds are more than just keepers of Traditional Ecological Knowledge (TEK), which includes ecological observations, customs, social structures, and Indigenous worldviews. They also act as nonhuman agents that protect people, shape relationships between species and within communities, support conservation values, and help maintain species continuity in these stories. These interconnected functions articulate a relational and normative form of ecological identity grounded in reciprocity among birds, humans, landscapes, and ancestral memory. The study contributes to the environmental humanities by integrating TEK and bird agency as complementary analytical perspectives to understand how ecological values, responsibilities, and human-nonhuman relationships are represented and transmitted through Papuan folklore

Keywords: Traditional Ecological Knowledge; animal agency; Papuan folklore; ecological identity; Indigenous ecological knowledge

ABSTRAK

Naratif burung dalam cerita rakyat pribumi Papua telah mendapat perhatian ilmiah sebagai tempat penyimpanan pengetahuan ekologi dan sebagai representasi hubungan antara manusia, bukan manusia, dan alam semula jadi. Walau bagaimanapun, kajian terdahulu cenderung mengkaji Pengetahuan Ekologi Tradisional (TEK) dan agensi haiwan secara berasingan, meninggalkan pemahaman terhad tentang bagaimana perspektif ini bersilang dalam artikulasi naratif identiti ekologi. Kajian ini mengkaji bagaimana identiti ekologi diartikulasikan secara naratif melalui interaksi antara TEK dan agensi burung dalam lima cerita rakyat Papua terpilih. Dengan menggunakan reka bentuk kualitatif interpretatif dan analisis teks berasaskan teori, kajian ini menganalisis episod naratif yang melibatkan burung, manusia, makhluk bukan manusia lain, dan landskap. Penemuan menunjukkan bahawa burung lebih daripada sekadar penjaga Pengetahuan Ekologi Tradisional (TEK), yang merangkumi pemerhatian ekologi, adat, struktur sosial, dan pandangan dunia Orang Asli. Mereka juga bertindak sebagai agen bukan manusia yang melindungi manusia, membentuk hubungan antara spesies dan dalam komuniti, menyokong nilai pemuliharaan, dan membantu mengekalkan kesinambungan spesies dalam cerita-cerita ini. Fungsi-fungsi yang saling berkait ini mengartikulasikan bentuk identiti ekologi yang bersifat relasional dan normatif yang berasaskan timbal balik antara

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burung, manusia, landskap, dan ingatan nenek moyang. Kajian ini menyumbang kepada kemanusiaan alam sekitar dengan mengintegrasikan TEK dan agensi burung sebagai perspektif analitik yang saling melengkapi untuk memahami bagaimana nilai ekologi, tanggungjawab, dan hubungan manusia-bukan manusia diwakili dan disampaikan melalui cerita rakyat Papua

Kata Kunci: Pengetahuan Ekologi Tradisional; gensi haiwan; Cerita rakyat Papua; identiti ekologi; Pengetahuan ekologi Orang Asli

INTRODUCTION

In the environmental humanities, oral traditions are increasingly recognized as biocultural archives that preserve ecological knowledge, cultural memory, and environmental ethics across generations. Oral narratives are not merely myths or entertainment but a record of the ongoing interactions among humans, nonhuman beings, and the environment, and therefore represent ecological knowledge expressed through cultural activities. The interaction between humans and the environment has been portrayed in literature since prehistoric times, yielding ecological insights that are still pertinent to the sustainability of life (Buell et al., 2011). Likewise, ecosystems provide not only fundamental necessities such as food, water, shelter, and energy but also govern ecological processes that support human life, including climate regulation, water purification, and biogeochemical cycles (Russell et al., 2013). Traditions are increasingly recognized as storehouses of ecological knowledge that sustain a reciprocal interaction between people and a more-than-human world (Awuah-Nyamekye, 2014; Mu & Ma, 2024; Eze, 2026). From an ecocritical perspective, literary representations of nature can likewise articulate ethical responsibility and interdependence between humans and nonhuman life. For example, Khosravi et al. (2017) show that representations of wilderness, plants and animals can challenge anthropocentrism by emphasising respect, ecological responsibility and interdependence between humans and nonhumans. Such ethical and relational orientations are an important basis for understanding ecological identity as narratively constructed in relations between humans, nonhuman beings, landscapes and culturally embedded ecological knowledge.

In this context, Traditional Ecological Knowledge (TEK) provides an important conceptual framework for understanding how ecological knowledge is embedded in oral traditions. Berkes (2012) defines TEK as the accumulation of knowledge, practices, beliefs, and social institutions that develop through long-term interaction between indigenous peoples and their environment. TEK not only includes empirical observations of nature but also integrates four interrelated dimensions: local ecological knowledge, resource management practices, social institutions, and worldview. The four dimensions show how indigenous peoples observe nature, manage resources, strengthen their institutions, and understand the connections among people, other living things, and the spiritual world. Oral traditions express culture and help preserve and share ecological knowledge across generations. Birds are an important part of Papuan folk stories about human life, ancestral beliefs, environmental change, and specific landscapes. They are depicted not just as components of the natural environment but also as actors whose actions can influence human choices, mediate relationships between communities and their environments and transmit culturally embedded meanings of ecology. These portrayals imply that bird stories are an important means by which Papuan societies communicate their knowledge of nature, cultural values and sense of place. But previous studies have tended to treat Papuan ecological knowledge, animal symbolism and folklore as separate fields of study. Consequently, the relationships between birds,

humans and landscapes in the development of Papuan ecological identity have been given little attention.

Garrard (2012) offers an ecocritical lens for examining literature's depiction of human-animal relations, the boundary between humans and other life, and ethical and environmental debates about animals. The study defines bird agency as the ability of bird characters to influence human actions, form connections between humans and other species and the environment, play a role in ecological balance, and express environmental values. We see Papuan folktales as stories of cooperation between humans and nonhumans in the production of ecological values. These ideas are of particular use in understanding Papuan folklore. Papua has varied tropical ecosystems, including forests, mountains, wetlands, and coastal areas. These environments are closely tied to Indigenous beliefs, social life, and daily activities. In Papuan oral traditions, nature is more than a backdrop. They view forests, rivers, mountains, animals, and ancestral spirits as part of a living system. Papuan folklore often serves as a means of transferring knowledge about land and its resources, demonstrating the close relationship between Indigenous people and their environment (Rahman et al., 2022). Sukmawan (2016) said that Indonesian folklore has ecological wisdom in stories that are useful to keep the balance between human beings and nature. Nofrahadi et al. (2022) in their study of the Minangkabau Kaba found that natural phenomena, animals, plants, and landscapes are not just a backdrop but important elements of traditional stories. People often give cultural and ecological meanings to natural signs and animal behavior. Arianto and Simanjuntak (2020) add that reviving folklore can help protect local environmental knowledge. In Papua, Sentani's oral tradition is to preserve the ecological knowledge and the sacred relationship between humans, the natural world and the spiritual realm (Yektingtyas & Dewi, 2023). Other Aboriginal cultures have stories passed down from generation to generation with common themes of reciprocity, management skills, cosmology and environmental knowledge (Mu & Ma, 2024; Bredal-Tomren, 2026). Birds play an important role in these customs. Indigenous Papuans use songs, movements, physical characteristics and behaviours of birds as cultural markers and ecological indicators (Iyai et al., 2026). Papuan ecology suggests that birds of paradise depend on their environment. The red bird of paradise (*Paradisaea rubra*) in Raja Ampat chooses its nesting sites according to topography, elevation and canopy openness (Budhiana et al., 2025). That accounts in part for the prominence of birds of paradise in Papuan stories. Warmetan et al. (2025) reported that bird diversity in Manokwari was influenced by vegetation composition and the habitat's stages of succession. The results imply that indigenous knowledge of birds is closely related to the biological characteristics of their habitats. Hence, bird narratives in folklore could be treated as a form of place-based ecological knowledge rather than as random cultural symbols. Birds are among the many nonhuman beings in Papuan myth, playing important roles as intermediaries for ancestors, messengers of ecological signals, markers of territory, moral advisors, and protectors of the reciprocal interaction between humans and nature.

Nevertheless, important theoretical gaps remain. Previous studies have shown that Papuan folklore retains ecological knowledge and environmental ethics. However, as literary texts, these stories are still rarely studied through an ecocritical approach that analyzes how the relationships among humans, nonhuman beings, and landscapes are represented and negotiated in the narrative. The study of ecocritical literature, especially through Garrard's (2012) discussion of *animals*, provides a useful perspective to analyze how literary texts represent the human-animal relationship and its ethical implications. However, this perspective is still rarely integrated into the *framework of Traditional Ecological Knowledge* (TEK) outlined by Berkes (2012), so the interaction between ecological knowledge and bird representation in shaping the Papuan people's ecological identity

through oral traditions remains poorly understood. The main body of this research consists of five written retellings in Indonesian about Papuan folklore sourced from three anthologies published by official institutions. Three stories, namely *Edesa Oufa and Bird of Paradise*, written by Oktovina Titaley and from the Arfak Mountains, Manokwari; *Mama and Child Incarnate into Birds*, retold by Ina Samosir Lefaan, based on the oral speech of F. S. Kotju from the Maybrat-Ayamuru area; and *The Jandurau Parrot*, written by Ronni Marbun and related to the Kebar community in Manokwari, selected from the *West Papua Folklore* published by the West Papua Education Quality Assurance Institute (LPMP) in 2018. The story of *Damuai and Bayei, Si Rajawali*, written by Anetha Yulia Demetou and originating from Jayapura, was selected from the *Papuan Folklore Collection: Winners of the Competition*, published by the Papuan Language Center under the Language Development and Development Agency of the Ministry of Education and Culture in 2014. The fifth story, "*The Story of the Ancient Bird and the Dragon Snake*," written by Pupu Puji Pratiwi from Kaimana Regency, is taken from the 2017 edition of the same anthology. All of these texts are written retellings of the oral traditions of indigenous Papuans, not oral recordings collected directly by researchers. The five stories were chosen purposively because they place birds as central characters who consistently articulate the relationships between humans, nonhuman beings, ancestral beliefs, and specific landscapes. As literary texts, these stories are understood not only as repositories of ecological knowledge but also as narrative constructions that construct, negotiate, and pass on the ecological meanings and identities of indigenous peoples from one generation to the next. Using an interpretive qualitative research design and theory-based ecocritical textual analysis, this study examines how Papuan folklore represents the relationships among humans, birds, and landscapes, and how bird narratives construct the ecological identity of the Papuan people through the interaction between *Traditional Ecological Knowledge* (TEK) and bird agency. Specifically, this study aims to explain how bird narratives maintain ecological knowledge through representations of ecological observations, indigenous practices, social institutions, and worldviews of indigenous peoples; analyze how birds function as narrative agents that mediate relationships between humans, other species, and landscapes; and explore how the *framework of Traditional Ecological Knowledge* from Berkes and Garrard's discussion of *animals* complement each other in explaining the formation of the ecological identity of the Papuan people. By integrating these two perspectives, this research contributes to the field of *environmental humanities* by showing how ecological knowledge and bird agency together shape the ecological identity of indigenous peoples through Papuan folklore.

LITERATURE REVIEW

Traditional Ecological Knowledge (TEK) is among the most important conceptual frameworks in the environmental humanities, ethnobiology, and conservation for studying how indigenous peoples and local communities perceive, manage, and transmit ecological knowledge across generations. TEK is no longer viewed as a static collection of traditional knowledge but as a dynamic, adaptive, and embedded knowledge system within a growing culture, through ongoing interaction between humans and their environment (Susanto & Numata, 2023; Zhang et al., 2020). Berkes conceptualises TEK as four interrelated dimensions: (1) local ecological knowledge, which includes empirical observations of species, habitat and ecological processes; (2) resource management practices, which includes traditional techniques, taboos and natural utilisation of resource systems; (3) social institutions, which includes customary norms, collective governance

and cultural mechanisms that maintain the sustainability of ecological knowledge; and (4) worldview, which represents cosmological beliefs, ethical values and spiritual relationships that shape human relationships with nonhuman life (Berkes, 2012). These four dimensions show that ecological knowledge is entrenched in cultural institutions and moral systems, as it is formed concurrently through observation, practice, social organization, and cosmological interpretation.

Recent studies demonstrate the relevance of Traditional Ecological Knowledge (TEK) across diverse socio-ecological contexts. Ivaşcu and Biro (2020), for example, show how pastoralists use knowledge of animal behavior to anticipate the presence of large carnivores and mitigate human–wildlife conflict, while Permana et al. (2019) demonstrate how Indigenous ecological knowledge, myths, and taboos can shape attitudes and practices toward wildlife conservation. Similarly, Maliao et al. (2023) show that local ecological knowledge of climate, fisheries, species abundance, environmental change, and customary taboos can contribute to freshwater biodiversity management and conservation. These studies confirm that ecological knowledge serves not only as practical information but also as an integrated cultural system through which societies build social resilience, respond to environmental changes, and interpret the relationship between humans and nature. Similarly, various studies on protected areas and customary territories show that traditional tenure regimes, customary institutions, and collective ecological practices make significant contributions to the effectiveness of conservation and long-term ecosystem resilience (Zhang et al., 2020). On the contrary, some researchers warn that habitat degradation, biodiversity loss, language shifts, and economic integration accelerate the erosion of TEKs, especially in components of local knowledge passed down through oral traditions (Turvey et al., 2018; Zhang et al., 2020). These findings show that the sustainability of TEK depends not only on environmental sustainability but also on the sustainability of cultural institutions and knowledge transmission mechanisms across generations.

METHODOLOGY

This study uses an interpretive qualitative design and theory-based textual analysis to examine how ecological identity is articulated narratively through the linkages between *Traditional Ecological Knowledge* (TEK) and bird agency in five selected Papuan folktales. Folklore is treated as a form of biocultural narrative that represents and transmits ecological knowledge, customary practices, cosmological understanding, and environmental values. Five folktales were purposively selected from a published collection of folklore because they contain narrative episodes involving birds and their relationships with humans, other nonhuman creatures, landscapes, or ecological processes. The unit of analysis in this study is a narrative episode, a series of events that form a coherent ecological or human-non-human relationship in the story. The analyzed folklore and its sources are presented in Table 1.

The analytical framework combined Berkes's (2012) Traditional Ecological Knowledge (TEK) framework with selected dimensions from Garrard's (2012) discussion of animals. Berkes's TEK framework was operationalized through four interrelated dimensions: local ecological knowledge, resource management practices, social institutions, and Indigenous worldviews. These dimensions facilitate the identification of ecological observations, customary resource management practices, social rules, knowledge transmission, and spiritual or relational understandings involving birds, humans, ancestors, and landscapes. In parallel, Garrard's discussion of animals is operationalized through three relevant dimensions: nonhuman

subjectivity, human-animal boundaries, and wild animals and biodiversity. These dimensions are used to interpret the narrative role of birds, human–animal boundaries, and ecological relationships between birds, habitats, and landscapes. Anthropomorphism, metaphors/metonyms, and moral considerations are treated as supporting interpretive concepts and are only used when explicitly represented in the narrative.

The analysis was carried out using *theory-driven coding* based on predetermined conceptual categories (Saldaña, 2021). The five folktales were first carefully read to identify relevant narrative episodes. Then the episodes were encoded using four TEK dimensions and three selected dimensions from Garrard's discussion of animals. An episode can have more than one code if it represents multiple analytical dimensions. Bird agency is identified operationally when birds initiate or redirect narrative events, influence human actions or decisions, mediate relationships between humans, nonhuman beings, or ancestral forces, or establish ecological relationships within the narrative. The encoded episodes are then compared between stories to identify repetitive configurations of ecological knowledge, bird agency, and human–nonhuman relationships. The final interpretation is carried out by synthesizing these patterns to examine the articulation of the ecological identity narrative. The validity of the analysis is strengthened through repeated readings of the source text, iterative examination of episodes coded in the context of the original narrative, cross-case comparisons, and theoretical triangulation using Berkes's framework for TEK and Garrard's discussion of ecocriticism about animals. Relevant studies in Traditional Ecological Knowledge (TEK), ecocriticism, ethnobiology, and folklore are used as contextual references to assess the consistency and feasibility of interpretation, not as a substitute for textual evidence.

RESEARCH AND DATA COLLECTION CORPUS

This research employed an interpretive qualitative design with a selected corpus of Papuan folktales as the primary textual data. The corpus is taken from three published folklore collections, namely West Papua Folklore Collection (LPMP West Papua, 2018), Kumpulan Cerita Rakyat Papua (2014) and Kumpulan Cerita Rakyat Papua (2017). Five folktales were purposively selected on the basis of their relevance to the research focus, particularly the presence of narrative episodes involving birds and their relationships with humans, other nonhuman beings, landscapes, and ecological processes. The selected narratives, documented in Indonesian, were treated as primary textual data rather than as secondary literature. Analysis of written texts remains relevant because their narrative structures, characters, settings, and events retain cultural and ecological significance inherited through oral tradition (Stanton, 1965). The research corpus was selected purposively based on three criteria, namely: (1) birds occupy a central position in the storyline; (2) stories show ecological interactions between birds, humans, and the environment; and (3) narratives containing ecological knowledge, customary practices, ancestral beliefs, or environmental ethics. Based on these criteria, five folk tales were selected: Edesa Oufa and the Bird of Paradise; Mama and Child Transformed into Birds; Damuai and Bayei; The Eagle; The Story of the Ancient Bird and the Dragon Snake; and the Parrot.

TABLE 1. Primary Corpus of the Study

No	Folktale	Ethnic group/Region	Source
1	<i>Edesa Oufa dan Burung Cendrawasih</i>	Arfak, Manokwari	<i>Cerita Rakyat Papua Barat</i> (LPMP Papua Barat, 2018)
2	<i>Mama dan Anak Menjelma</i>	Maybrat–Ayamaru	<i>Cerita Rakyat Papua Barat</i> (LPMP Papua Barat, 2018)
3	<i>Menjadi Burung Burung Nuri Jandurau</i>	Kebar, Manokwari	<i>Cerita Rakyat Papua Barat</i> (LPMP Papua Barat, 2018)
4	<i>Damuai dan Bayei, Si Rajawali</i>	Jayapura	<i>Kumpulan Cerita Rakyat Papua: Pemenang Sayembara</i> (Balai Bahasa Papua, 2014)
5	<i>Kisah Burung Purba dan Si Ular Naga</i>	Kaimana	<i>Kumpulan Cerita Rakyat Papua: Pemenang Sayembara</i> (Balai Bahasa Papua, 2017)

Data was collected through document analysis (Bowen, 2009). All folklore was first read to determine the research corpus, and then the five selected stories were read repeatedly using the close-reading technique. The unit of analysis is a narrative episode, a series of events that form a unified ecological meaning in each story.

This study employs deductive, theory-driven coding rather than inductive thematic coding or structuralist indexing. The coding categories were established from the outset based on the framework of Traditional Ecological Knowledge (TEK) (Berkes, 2012) and the analytical dimensions chosen from Garrard's (2012) discussion of animals. Each narrative episode is encoded into an analysis matrix that contains the story title, narrative context, bird species, forms of ecological interaction, narrative functions, TEK categories, and bird agency categories.

Coding based on the TEK framework is conducted using four analytical categories: local ecological knowledge, resource management practices, social institutions, and the worldview of indigenous peoples. Meanwhile, coding based on Garrard's discussion of animals focuses on the three analytical dimensions most relevant to this research: nonhuman subjectivity, human-animal boundaries, and the relationship between wild animals, habitat, and biodiversity. Anthropomorphism, animal metaphors and metonymies, as well as moral considerations for animals, are recorded as analytical categories if explicitly represented in the narrative.

The meaning of birds is categorized based on the cohesion of narrative evidence, not solely on the appearance of certain symbols. Birds are interpreted as shaping the ecological identity of Papuan people if the narrative consistently represents their role in maintaining ecological knowledge, mediating relationships between humans, nonhuman beings, ancestors, and landscapes, or forming ecological relationships in stories. Thus, ecological identity is understood as the result of integrating Traditional Ecological Knowledge (TEK) and bird agency, rather than merely as a symbolic representation.

TABLE 2. Analytical Coding Framework

Framework	Analytical Dimension	Coding Indicators	Purpose of Analysis
Traditional Ecological Knowledge (Berkes, 2012)	Local ecological knowledge	Ecological observations are represented in the narrative	Identify ecological knowledge embedded in the folktales
	Resource management practices	Protection, use, customary restrictions	Identify environmental management practices
	Social institutions	Customary rules, communal obligations, and knowledge transmission	Identify indigenous social institutions

Animals (Garrard, 2012)	Indigenous worldviews	Spiritual relationships among birds, humans, ancestors, and landscapes	Identify the indigenous ecological worldview
	Nonhuman subjectivity	Birds represented as active nonhuman subjects	Examine bird agency
	Human–animal boundaries	Transformation, kinship, and relational identity	Interpret multispecies relationships
	Wild animals and biodiversity	Relationships between birds, habitats, and landscapes	Examine ecological interconnectedness
	Supporting interpretive concepts	Anthropomorphism, metaphor/metonymy, moral consideration	Support literary interpretation when explicitly represented

DATA ANALYSIS AND RESEARCH

The analysis is carried out through two stages. The conceptual foundation of the four dimensions of Traditional Ecological Knowledge of Berkes (2012) and selected concepts from Garrard's (2012) discussion of animals are explained in detail in the theoretical framework section. Therefore, this section explains how these concepts are operationalized in the coding and interpretation process. In the first stage, the first cycle of descriptive encoding is used to identify narrative episodes featuring interactions among birds, humans, other nonhuman creatures, and the environment. Narrative episodes are defined as a series of events that form a single unity of ecological meaning. Each identified episode was recorded based on the narrative context, the birds involved, the forms of ecological interaction, the birds' actions, and their narrative function. In the second stage, theory-based deductive coding is used to group episodes identified according to four interrelated TEK dimensions, as stated by Berkes (2012). Narrative representations of birds' relationships with habitats, environmental conditions, interspecies interactions, and bird behavior are encoded as local ecological knowledge. Episodes that represent customary protection, conservation, restraint, responsible use, or the reciprocal relationship between humans and the environment are coded as resource management practices. Customary rules, kinship obligations, communal responsibilities, and the intergenerational transmission of knowledge and ecological values are codified as social institutions. The transformation of humans into birds, ancestral presences, spiritual connections, sacred landscapes, and cosmological beliefs are encoded in the worldviews of indigenous peoples. The four dimensions are treated as interconnected categories, not separate ones. Therefore, a single episode can acquire more than one TEK code if it represents multiple dimensions simultaneously.

The encoded episodes are then interpreted through three concepts drawn from Garrard's (2012) discussion of animals: nonhuman subjectivity, human-animal boundaries, and the relationship between wild animals, habitat, and biodiversity. Nonhuman subjectivity is used to examine whether birds are represented as subjects that act and influence the story's development. The human–animal boundary is used to make sense of transformation and reciprocal relationships. Ecological agents are birds that initiate or modify the sequence of events, influence human behaviour and decisions, protect or defend life (both human and non-human), and contribute to the sustainability of ecological relationships. Thus, the agency of birds is not only due to their presence as a symbol. The research validity is enhanced through repeated comparison of codes, interpretation results, and source narrative texts, as well as through theoretical triangulation between the TEK framework and Garrard's concepts of ecocriticism. An episode is considered to reflect the ecological identity of Papua if it satisfies at least two criteria: depicting the reciprocal relationships between birds, humans and landscapes; containing the ecological knowledge or

beliefs of indigenous peoples; and depicting birds as active participants. All episodes are then compared through cross-case comparison. The recurring patterns are synthesized into three main themes: birds as repositories of TEK and as nonhuman ecological agents; birds as actors that sustain human and multispecies life; and the relationship between TEK and bird agency in the formation of Papua's ecological identity. The validity of the research is maintained through source triangulation, theoretical triangulation, and iterative verification. Intertextual patterns were compared and examined with ethnobiology, ornithology, TEK, and ecocriticism literature. All encoding results are also reviewed against the source text to ensure that the interpretation rests on textual evidence. Based on the coding framework, each story was analyzed using the dimensions of Traditional Ecological Knowledge and Garrard's concept of animals, as presented in Table 3.

TABLE 3. Theory-Based Coding Framework for Analysis of Bird Narratives in Papuan Folklore

Story Title	Bird	Focus of Analysis	TEK Dimensions
Edesa Oufa dan Burung Cendrawasih	Bird of paradise	Human-bird transformation	Worldview
Mama dan Anak Menjelma Menjadi Burung	Cassowary, arit bird (small bird species in Papua)	Kinship and mutual feeding	Social Institutions
Burung Nuri Jandurau	Parrot	Habitat and behavior of species	Local Ecological Knowledge
Damuai dan Bayei, Si Rajawali	Eagle	Protection of humans	Resource Management Practices
Kisah Burung Purba dan Si Ular Naga	Ancient Birds	Species sustainability and ecological balance	Worldview

Table 3 presents the coding framework used in this study to connect the folklore corpus with the analysis category based on Traditional Ecological Knowledge (TEK) and the concept of animals in ecocriticism. Each story is treated as a single case for analysis, while the focus of analysis centers on the main narrative episodes on which the coding process is based. These episodes are then classified into one of the four dimensions of TEK, according to Berkes (2012): local ecological knowledge, resource management practices, social institutions, and worldview. Garrard (2012) discusses *animals*, namely nonhuman subjectivity, human-animal boundaries, wild animals, and biodiversity, as well as supporting interpretive concepts when they appear explicitly in the narrative. Furthermore, episodes are interpreted through the concepts of nonhuman subjectivity, human-animal boundaries, wild animals and biodiversity, as well as relevant supporting concepts to examine bird actions, human-bird relationships, and ecological linkages.

RESULTS AND DISCUSSION

BIRD NARRATIVES AS REPOSITORIES OF TRADITIONAL ECOLOGICAL KNOWLEDGE

A study of five Papuan folktales shows that birds are consistently represented not only as symbolic motifs but also as custodians of Traditional Ecological Knowledge (TEK) embedded within the stories of Indigenous peoples. In these stories, birds are the recorders of ecological observations of habitats, species behavior, resource use, social relationships, and cosmological beliefs that are transmitted from generation to generation. As summarised in Table 1, each bird species represents one or more dimensions of TEK, according to Berkes (2012): local ecological knowledge, resource management practices, social institutions, and worldview. At the same time, the narrative begins to show that birds are not just objects of representation but nonhuman participants who help keep

ecological knowledge alive. In this subchapter, agency functions primarily as a mechanism underpinning the transmission of traditional ecological knowledge. The change from human to bird can be understood not only through mythological motives but also through biocultural mechanisms that encode ecological identity, ancestral memory, kinship relations, and attachment to a certain landscape, based on studies in ethnobiology and environmental humanities (Permana et al., 2020; Bhattacharjee & Sinha, 2023; Ulicsni & Babai, 2020). Bird metamorphosis narratives may be read as expressions of indigenous worldviews that connect humans, nonhuman beings, ancestors, and the environment and that also transmit ecological knowledge and beliefs across generations (Berkes, 2012). This pattern also appears in the story "The Origin of the Bird of Paradise," where Wowoi becomes a bird of paradise after asking God for guidance.

For instance, in the story of Wowoi, the protagonist transforms into a Bird of Paradise:

Wowoi pun berdoa meminta petunjuk kepada Tuhan dan memohon pertolongan atas masalah yang dihadapinya. Atas kekuasaan Tuhan, seketika itu Wowoi berubah menjadi burung cenderawasih yang indah. Burung itu terbang menjauhi Windei. Windei sedih kehilangan Wowoi yang kini berubah wujud menjadi seekor cenderawasih.

"Wowoi also prayed to God for guidance and help with the problems he faced. By the power of God, Wowoi instantly turned into a beautiful bird of paradise. The bird flew away from Windei. Windei was sad to lose Wowoi, who had now transformed into a bird of paradise.

(Titaley, 2018, p. 19)

The transformation is not just a change of supernatural forms but can be considered an emblem of the sustainability of man's relation with the ecological landscape. Metamorphosis transmits human identity to the lives of birds narratively so that ancestral memories are inscribed in ecological space. This interpretation corresponds to the worldview dimension of Traditional Ecological Knowledge that provides meaning to environmental observation and includes religion, ethics and belief systems (Berkes, 2012). Berkes also noted that stories and legends have meanings and values that are embedded in land and an attachment to place. Their association with specific habitats further strengthens birds' role as repositories of ecological knowledge. In the same story, the bird of paradise is repeatedly associated with the Arfak Mountains, thereby linking the species to a landscape of cultural and ecological significance. This formulation is supported by Berkes' description, which holds that *the worldview* includes religion, ethics, and belief systems; that stories and legends carry meanings rooted in the soil; and that landscapes can serve as stores of memories of events and social relationships.

"Pegunungan Arfak memiliki keasrian alam yang mendamaikan ketentraman penghuninya. Di situlah awalnya tempat bermukim tiga burung Cenderawasih, yang terdiri atas Mama dan dua anaknya.

The Arfak Mountains have a natural beauty that brings peace of their inhabitants. That was the place where three Cenderawasih birds originally lived: Mama and her two children.

(Titaley, 2018, p. 2)

The Arfak Mountains are not only a geographic location but also a repository of ecological knowledge about species distribution and the interactions between birds and the landscape. Existing work has demonstrated that indigenous oral traditions encode place-based ecology by linking particular species to forests, rivers, or mountains of ecological and cultural importance (Permana et al., 2019; Ivanova et al., 2021). Thus, the birds of paradise become a medium for the community to maintain the ecological memory of the Arfak environment. A similar story is told in the narrative of Mama and Child Incarnate as Birds, when humans that turn into cassowaries and sickles then occupy different ecological niches.

Pada saat meratap, tiba-tiba roh bapaknya merasuki jiwa istrinya dan berubah menjadi seekor kasuari sedangkan anaknya berubah menjadi burung arit (burung kecil).

At the time of wailing, his father's spirit suddenly possessed his wife's soul and turned into a cassowary, while his son turned into a arit bird (small bird species in Papua).

(Samosir, 2018, p. 52)

The story then distinguishes the ecological niche of each bird.

"Kasuari hidup dan mencari makan di atas tanah sedangkan burung arit hidup bertengger di atas pohon." Begitu sayang anak pada mamanya setiap hari hingga saat sekarang burung arit tetap menolong mamanya dengan cara menjatuhkan buah-buahan di bawah pohon agar mamanya selalu mendapatkan makanan.

"Cassowaries live and forage on the ground while live sickles perch on trees." The child loves his mother so much every day that, until now, the sickle still helps his mother by dropping fruits under the tree so that his mother always gets food.

(Samosir, 2018, p. 52)

The description is based on empirical observations of the vertical stratification of forest habitats and the specific behaviour of each species within those habitats. This information is not presented as scientific explanations but is integrated into the storyline so that it can be easily understood and transmitted orally. Thus, narrative serves as a medium for storing local ecological knowledge the community has gained through long-term interaction with its environment. Another dimension of TEK is seen in the story of Jandurau's Parrot. Parrots were first introduced through their feeding behavior on fruiting giawas trees.

Suatu ketika, Anjai dan Bori sedang asyik memanjat pohon giawas, untuk memetik dan memakan buahnya. Tiba-tiba terdengar suara pekikan kawanan burung nuri, yang beterbangan dan bertengger pada ranting pohon giawas. Tak sabar lagi burung-burung nuri mulai memakan satu per satu buah giawas dengan penuh kenikmatan.

Once, Anjai and Bori were engrossed in climbing the giawas tree to pick and eat the fruit. Suddenly, there was a screaming sound of a flock of parrots, which flew and perched on the branches of the giawas tree. I couldn't wait any longer for the parrots to start eating the giawas fruit one by one, with full of enjoyment.

(Marbun, 2018, p. 80)

The depiction shows the ecological relationship between bird species and forest resources. However, this ecological knowledge later informed conservation practices when the character Anjai decided to stop hunting parrots after realizing the bird had saved his life. These behavioral changes show that observation of nature does not stop as ecological information, but develops into resource management practices that are inherited through folklore as an ethics for the use of wildlife. Overall, the results of the analysis show that birds in Papuan folklore serve as a repository of Traditional Ecological Knowledge, storing and transmitting ecological observations, environmental management practices, social institutions, and indigenous peoples' worldviews in an integrated manner. At the same time, the narrative begins to show that this knowledge is preserved through the actions of birds in the story, so that birds no longer appear as passive symbols, but rather as nonhuman participants that allow Traditional Ecological Knowledge to continue to live in the collective memory of the community.

Keenam bersaudara itu adalah burung-burung nuri yang pernah diusir dan dipanah oleh Anjai. Anjai teringat semua perbuatannya Ia sangat menyesal bahkan teringat teguran adiknya yang kala itu tak dihiraukannya. Akhirnya, Anjai dan Boritz makin dewasa, Mereka tidak lagi memburu dan membunuh burung nuri karena menyadari....., adalah simbol pesan bermakna kepada generasi Jandurau, untuk tidak membunuh burung pkarena telah menyelamatkan Mereka.

The six brothers are parrots that Anjai once chased away and shot. Anjai remembered all his deeds. He was very sorry and even remembered his sister's reprimand, which he ignored at that time. Eventually, Anjai and Boritz grew older, They no longer hunt and kill parrots because they realize that it is a symbol of a meaningful message to the Jandurau generation, not to kill parrots for saving them.

(Marbun, 2018, p.84)

Thus, the cessation of parrot hunting in the narrative does not result from legal sanctions or formally imposed rules, but from the characters' recognition of a reciprocal relationship with birds. Environmental ethics are part of the collective memory and are transmitted orally as intergenerational ecological knowledge. Drawing on the persistence of ecological knowledge, recent ecocritical scholarship suggests that indigenous narratives tend to portray birds as active agents in the reconfiguration of relations among humans, landscapes, and other living beings. Garrard's conception of animals implies that nonhuman creatures are involved in the production of ecological meaning and ethics not only via symbolic representation but also via their actions (Zapf, 2016). These characteristics are consistently found in the Papuan folklore analysed in this study. Birds of paradise initiate ecological transformations, cassowaries and bird arit represent ecological differentiation, while parrots direct human behavior through the formation of a mutual conservation ethic. Thus, across these narratives, birds simultaneously preserve ecological knowledge and actively influence human decisions, showing that Traditional Ecological Knowledge and bird agency are two complementary foundations for building the ecological identity of the Papuan people.

BIRD AGENCY TRANSFORMS ECOLOGICAL RELATIONSHIPS.

The folklore analyzed in this study consistently portrays birds not only as repositories of ecological knowledge but also as participants with agency in multispecies relationships. The actions of birds sustain human life, mediate communication between species, support species' sustainability, and direct encounters that were originally exploitative towards ecological relationships that are reciprocal. Bayei hears her screams and rescues Fhame when left on the beach, and the other humans do not respond. Bayei takes Fhame back to the lair. Following Garrard's (2012) argument for nonhuman subjectivity, the episode moves the human-animal relationship from neglect to protection and interspecies dependence, redistributing the agency of rescue from humans to nonhumans. Environmental activism is based on cultural stories and narratives that reframe ecological crises and challenge the dominant paradigm of human-nature relations. Narratives rooted in local identity, spirituality, and collective memory offer alternatives that mobilise at the grassroots level and build environmental justice (Sachar, 2025). Ecological agency is most clearly expressed in the story of Damuai and Bayei (The Eagle), where the eagle (Bayei) is the main actor responsible for the safety of humans. In the story, after Fhame was abandoned on the beach, no human responded to her cries for help. Instead, the eagle hears her cries, rescues her, and carries her to his nest.

Adapun yang terjadi pada Fhame, istri Damuai, setelah dibuang oleh Warpo, Fhame pingsan, dan Ketika sadar ia meminta tolong. Namun, tidak ada seorang pun yang mendengar teriaknya, kecuali seekor rajawali yang disebut bayei. Rajawali itu mendengar teriakan Fhame, lalu segera menolongnya dan membawa Fhame ke sarangnya di pohon besar yang berada di tepi pantai tersebut. Berhari-hari Fhame tinggal bersama rajawali itu sampai anak yang dalam kandungannya lahir di sarang bayei.

After Warpo abandoned Fhame, Damuai's wife, she fainted. When she regained consciousness, she cried out for help. However, no one heard her cries except an eagle named Bayei (eagle). Hearing Fame's cries, Bayei (eagle) immediately came to her rescue and carried her to his nest in a large tree near the shore. Fame stayed with the eagle for several days until the child she was carrying was born in Bayei's (eagle) nest.

(Demetou, 2014, p. 118)

The eagle is represented as a human figure, as a protector, as a caretaker, as a provider of shelter. Bayei's nest is a community space where humans and animals support one another. The nest, high in the trees, is not only the home of an animal but also a refuge of a vulnerable person who can survive there with the help of a non-human protector. Birds therefore serve not only as protectors but also as mediators who make communication possible across distance. Indigenous oral narratives demonstrate the connections between humans and nonhuman beings through shared histories, places, and social relationships (Virtanen et al., 2021). Within such narratives, birds are not merely symbolic figures; they may also act as partners, messengers, mediators, and agents of change (Pierotti, 2020). When Fhame's child became old enough to speak, Bayei chose not to approach Damuai directly; instead, he sent a parrot to deliver the message on his behalf.

Bayei (Rajawali) melihat bahwa anak kecil itu sudah pandai berbicara. Bayei segera mengirim berita kepada Damuai melalui seekor burung kakaktua untuk menyampaikan pesannya, yaitu "Damuai! anak dan istrimu telah diselamatkan oleh Bayei dan mereka sekarang berada di sarang Bayei di atas pohon besar yang berada di tepi pantai," pada kakaktua tersebut katanya, "Sampaikan terima kasih saya pada Bayei lalu kakaktua itu pergi meninggalkan Damuai dan segera kembali pada Bayei.

Bayei (Eagle) saw that the little boy was already good at speaking. Bayei (eagle) immediately sends news to Damuai through a cockatoo to convey his message, which is "Damuai! your son and wife have been rescued by Bayei (eagle), and they are now in the Bayei (eagle) nest on the big tree that is on the beach," to the cockatoo he said, "Convey my thanks to Bayei (eagle) and the cockatoo left Damuai and immediately returned to Bayei (eagle).

(Demetou, 2014, p.119)

These stories show that different bird species have their own roles, but they are all connected in their communities. For example, the eagle protects the vulnerable, and the parrot helps groups stay in touch when they are apart. Birds are not just resources for people; they also act as go-betweens who help repair human relationships after conflict or separation. The stories suggest that when different species work together, it can help rebuild social ties. This idea also appears in The Ancient Bird and the Dragon Serpent, where the bird community survives because of the Ancient Bird's leadership and skill in negotiation. Stories about Indigenous animals, especially those about extinction, habitat loss, or environmental change, can show how some species are at risk and why it is important to survive together (Turvey et al., 2018). In the Papuan story, the Ancient Bird bargains with the Dragon Serpent that there will be no extinctions.

Ular Naga kemudian menghampiri Burung Purba, kepalanya yang besar dan....., Burung Purba ingin menyelamatkan kaumnya dari kepunahan. Burung Purba yang kuat dan pemberani itu tidak gentar dan melawan rasa takutnya. "Jika kau memangsa kami, kami akan punah." Ucap si Burung Purba.

The Dragon Serpent then approached the Ancient Bird. Its large, horned head looked scary and made the Ancient Bird half-frightened, but his determination was unwavering; he wanted to save his people from extinction. The strong and brave Ancient Bird was not afraid and fought his fears. "If you prey on us, we will become extinct." Said the Ancient Bird.

(Pratiwi, 2017, p. 246)

Although the negotiations ultimately failed, the dialogue showed that the Ancient Bird was aware of the ecological vulnerability of its community and was actively seeking to protect its people. As the Dragon Snake continued to prey on the birds, the population dwindled until only a pair of birds were left incubating an egg.

Namun, semakin hari Ular Naga merasakan makanan yang disediakan Burung Purba semakin sedikit dan semakin mengecil, kemudian muncullah Ular Naga itu ke permukaan dan memangsa burung-burung Purba yang hendak mencari makan. Semakin hari jumlah Burung Purba semakin sedikit, hingga tinggal sepasang Burung Pura yang tersisa dengan sebutir telur yang masih belum menetas dan dierami si betina, Si burung jantan berpikir keras bagaimana caranya agar mereka bisa terus hidup.

However, as time passed, the Dragon Snake noticed that the food provided by the Ancient Birds was becoming increasingly scarce and smaller in quantity. The Dragon Snake then surfaced and preyed on the Ancient Birds that went out in search of food. Gradually, the population of Ancient Birds declined until only a single pair remained, together with one unhatched egg being incubated by the female. The egg represented their only remaining chance of having offspring. The male bird thought carefully about how they could continue to survive.

(Pratiwi, 2017, pp. 247-248)

Instead of accepting extinction, the remaining male birds are still searching for strategies to keep their species afloat. In this way, the story constructs birds as conscious agents of ecological sustainability, where their decisions carry immediate consequences for the survival of a species. Survival is not presented as a simple biological accident but as the consequence of the deliberate action of the nonhuman actors themselves. Here, the Ancient Bird is the guardian of multispecies futurity, connecting ecological vulnerability with the ethical imperatives of life support. The role of birds as ecological actors is also reflected in the story of the Parrot. Ethno-ornithological studies show that bird-centered oral traditions often convey ecological ethics by embedding eating behaviors, habitat relationships, and attitudes toward human self-control into narrative structures (Permana et al., 2020; Bhattacharjee & Sinha, 2023; Ulicsni & Babai, 2020). At the beginning of the story, parrots only appear as fruit-eating birds that coexist with humans in the forest. However, the story later reveals that the parrots saved Anjai and Bori, thereby turning a previously exploitative relationship into a mutually beneficial coexistence. After the experience, the practice of hunting stopped permanently.

Keduanya pulang ke rumah dan Boritz menceritakan semua mimpi kepada Anjai. Ternyata mimpi Boritz merupakan pembelajaran bermakna bagi kehidupan mereka. Keenam bersaudara itu adalah burung-burung nuri yang pernah diusir dan dipanah oleh Anjai. Anjai teringat semua perbuatannya Ia sangat menyesal bahkan teringat itu. teguran adiknya yang kala itu tak dihiraukannya. Akhirnya, Anjai dan Boritz makin dewasa, Mereka tidak lagi memburu dan membunuh burung nuri karena menyadari....., adalah simbol pesan bermakna kepada generasi Jandurau, untuk tidak membunuh burung nuri karena telah menyelamatkan Mereka.

The two return home, and Boritz tells Anjai all the dreams. It turns out that Boritz's dream is a meaningful lesson for their lives. The six brothers are parrots that Anjai once chased away and shot. Anjai remembered all his deeds; he was very sorry and even remembered them. He ignored his sister's

reprimand at that time. Eventually, Anjai and Bori grew older, They no longer hunt and kill parrots because they realize....., which is a symbol of a meaningful message to the Jandurau generation: not to kill parrots to save them.

(Marbun, 2018, p. 84)

Hunting practices cease not because of external sanctions or formal customary rules, but as a result of direct interactions between humans and birds. Reciprocal relationships develop through ecological encounters in which birds' actions influence human attitudes and behaviour toward wildlife. Consequently, conservation ethics emerge from relationships among living beings rather than from abstract moral instruction. Parrots function as ecological actors because their interventions shape human behaviour and establish enduring ethical prohibitions against killing them. The narratives under analysis thus position birds as ecological actors whose roles extend beyond symbolic representation. Eagles protect vulnerable humans and reunite separated family members; parrots facilitate communication and transform exploitative relationships into forms of mutually beneficial coexistence; and ancient birds act to protect their species from extinction. These findings are consistent with studies showing that Indigenous oral narratives can sustain socioecological relationships and preserve relational understandings between humans and other-than-human beings within sociocultural memory (Pierotti, 2020; Virtanen et al., 2021). Thus, Papuan folklore portrays birds as ecological actors whose agency supports the lives of human and multispecies communities. Human well-being is inseparable from the actions of nonhuman beings, so ecological balance depends on the reciprocal relationship among humans, birds, and the broader environment. These patterns further strengthen the development of an integrated ecological framework, in which Traditional Ecological Knowledge and bird agency jointly contribute to the ecological identity of the Papuan people, as synthesized in the next section.

CONSTRUCTING PAPUAN ECOLOGICAL IDENTITY THROUGH BIRD NARRATIVES

Analysis of five Papuan folktales suggests that the ecological identity of the Papuan people's ecological identity is constructed through a reciprocal relationship between Traditional Ecological Knowledge (TEK) and birds' agency, as expressed in the narratives. Birds are an ecological knowledge repository, but they are also nonhuman agents that activate, transmit, and sustain that knowledge through their actions. Therefore, Papua's ecological identity is built not solely on the symbolism of birds but on the ongoing relationship among humans, birds, landscapes, and ancestral memory. This pattern aligns with many biocultural studies that describe indigenous narratives as a way of preserving ecological knowledge, kinship relations, and attachment to places across generations (Bhattacharjee & Sinha, 2023; Ulicsni & Babai, 2020). Further analysis indicates that the four dimensions of TEK proposed by Berkes (2012)-local ecological knowledge, resource management practices, social institutions, and worldview-operate as an interrelated system through bird agency. Knowledge of habitats, species behavior, and ecological relationships informs environmental management practices; these practices then become part of social norms and gain legitimacy through worldviews that connect humans, birds, ancestors, and landscapes. Thus, ecological observations recorded in folklore do not remain mere information about the environment but become embedded in the ethics and life practices of indigenous peoples. This pattern is consistent with the transfer of ecological knowledge among indigenous peoples through an inseparable link among ecological experiences, cultural practices, and belief systems (Berkes, 2012; Ivanova et al., 2021; Bhattacharjee & Sinha, 2023).

This pattern appears throughout the stories. The bird of paradise connects human identity to the landscape through transformation. Cassowaries and sickles stand for habitat differences, while eagles and parrots show ground protection and social communication. Ancient birds influence conservation ethics and species sustainability. Although each story takes place in a different setting, they all show how birds connect ecological knowledge, social practices, and environmental values. These results align with ethnobiological and Indigenous knowledge research, which shows that oral traditions can keep ecological knowledge and socioecological relationships alive through stories and other cultural expressions passed down over generations (Pierotti, 2020; Ivanova et al., 2021; Virtanen et al., 2021). The link between TEK and bird agency is not just two separate views. Birds help maintain ecological knowledge through what they do in these stories.

In contrast, bird agency acquires cultural significance because it is rooted in indigenous peoples' knowledge systems, inherited through oral traditions. In this context, birds not only become objects of cultural representation but also serve as a liaison that allows ecological knowledge, environmental ethics, and social institutions to continue to be reproduced in people's lives. This pattern is in line with the development of environmental humanities studies that place nonhuman beings as active participants in the formation of ecological meanings and multispecies relationships (Zapf, 2016). The selected Papuan folktales provide an ecological identity within a multispecies relational system that links ecological knowledge, cultural practices, environmental ethics, and nonhuman beings. In these stories, birds are agents of ecological memory preservation, narrative agency assertion, and mediation of relations between humans, ancestors, and landscapes. The interrelated functions suggest that the folktales may be cultural resources for intergenerational transmission of ecological meanings and values rather than direct evidence for contemporary ecological behaviour. However, recent research on specific indigenous communities in South Papua shows that forest-based ecological knowledge and relations are still maintained despite increasing threats from large-scale development and extractive activities (Rado et al., 2026; Kristin et al., 2025). This synthesis suggests that the formation of ecological identity depends not only on the inheritance of Traditional Ecological Knowledge, but also on the active role of birds as ecological agents who animate and sustain that knowledge within the narrative. These findings are in line with an interdisciplinary study that connects Traditional Ecological Knowledge with a multispecies ecocritical perspective to understand the relationship among humans, nonhuman beings, and the environment (Sandha et al., 2024). Results show that the five selected Papuan folktales convey a relational mode of ecological identity through the interactions between birds, humans, landscapes, and ancestral memory. These relationships appear in recurring patterns of reciprocity, protection, interdependence, and nonhuman mediation of ecological knowledge. Birds are not merely symbolic figures, but carriers of traditional ecological knowledge and non-human agents that help shape ecological relations within the narratives.

CONCLUSION

This study demonstrates that birds in Papuan folklore are not merely symbolic representations. Birds are repositories of traditional ecological knowledge, preserving knowledge about habitats, species behavior, customary practices, social institutions, and the worldviews of indigenous communities. Birds are also ecological agents that actively protect humans, mediate social relationships, shape conservation ethics, and sustain species. Thus, the actions of birds in these

stories continue to activate the ecological knowledge contained in the folklore, transferring it as cultural information. In this sense, folklore not only transfers ecological knowledge as cultural information, but the actions of birds in the stories also continue to activate this knowledge. The results of this study also demonstrate that the complementary relationship between traditional ecological knowledge and bird agents shapes the ecological identity of Papuan people. The four dimensions of TEK are not isolated; rather, the actions of birds connect these dimensions, connecting humans, landscapes, ancestral memories, and the environment. Therefore, Papuan folklore can be understood as a multispecies narrative system that simultaneously preserves ecological knowledge, revitalizes environmental ethics, and reproduces ecological identity across generations. This study contributes to the theoretical dialogue between Traditional Ecological Knowledge (TEK) and ecocriticism by showing how the formation of Indigenous peoples' ecological identities relies on the contributions of non-human beings to narratives and cultural knowledge systems. The study's findings provide new directions for future research by suggesting that scholars examine the narratives of other Indigenous communities through the lens of TEK and the agency of birds. This perspective allows for a deeper understanding of how oral traditions contribute to the maintenance of ecological knowledge and the promotion of environmental sustainability. This study has several limitations, as it examined only five Papuan folktales. Therefore, the results cannot represent the full diversity of Indigenous Papuan traditions or ecological identities. Furthermore, the analysis is based on written or documented versions of the narratives. Textual analysis may not fully capture the contextual, performative, and communal aspects of oral traditions, and therefore, these are not fully represented in the textual analysis.

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