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TOTEMIC ANIMALS AND RITUAL PERFORMANCE: AN ETHNOZOOLOGICAL PERSPECTIVE FROM EASTERN INDONESIA

Diah Irawati Dwi Arini[1], Raden Garsetiasih[1], Moh. Andika Lawasi[2], Pristiwanto[3], Salmin Djakaria[4], Hasanuddin Anwar[3], Irna Saptaningrum[5], and Ndoheba Kenda[2]

[1]Research Centre for Biota System
[2]Research Centre for Society and Culture
[3]Research Centre for Environmental Archaeology, Maritime Archaeology, and Cultural Sustainability
[4]Research Centre for Manuscripts, Literature, and Oral Traditions
[5]Research Centre for Prehistoric and Historical Archaeology

Abstract. The Kabasaran dance of the Minahasan ethnic group in North Sulawesi, Indonesia, was examined as a cultural practice integrating animal symbolism, ritual performance, and ecological ethics. This study documented animal representations in Kabasaran costumes and instruments, explored their interpretations among practitioners in relation to identity and cosmology, and assessed how material transformations influenced conservation-related practices. Data were collected through semi-structured interviews with performers, cultural experts, and artisans, complemented by direct observation of performances and costume production. Thirteen animal species, including mammals, birds, and reptiles, were identified as being represented through original body parts and symbolic substitutes. The findings showed that animal elements were perceived as active cultural agents conveying social, spiritual, and ecological meanings rather than merely decorative motifs. Material substitutions using resin, metal, or wood were interpreted as adaptive strategies that maintained ritual continuity while reducing pressure on forest wildlife. These practices were embedded in local traditions prior to formal conservation regulations.

Keywords: Kabasaran dance, ethnozoology, animal symbolism, ritual performance, conservation ethics, Minahasa

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1. Introduction

Traditional dance has long been recognised as a cultural medium through which ecological knowledge, ethical values, and cosmological understanding are articulated and transmitted across generations. Within many indigenous societies, dance functions not merely as aesthetic performance but as a living archive of collective memory, encoding relationships between humans, non-humans, and the surrounding environment (Kadali 2024, Yang 2024). As such, folk and ritual dances provide an important analytical entry point for examining how communities conceptualise their position within the natural world and negotiate moral obligations towards it (Kaur 2024).

Indonesia, widely acknowledged for its ethnic and cultural diversity, offers a particularly rich context for the study of traditional performance. Across the archipelago, dances have evolved within specific socio-cultural settings and have been sustained through intergenerational transmission, forming distinctive traditions that remain central to local identities. Several dances retain elements associated with prehistoric belief systems and ritual practices, including the Giring-giring, Hudoq, and Monong Dayak dances of Kalimantan, the Tortor dance of Batak communities in North Sumatra, and the Mentawai dances known as Turuk Uliat Bilou and Turuk Uliat Manyang (Caturwati 2023). These performances are commonly classified as folk dances, as they are embedded within particular ethnic groups and function simultaneously as ritual expressions with strong symbolic and spiritual dimensions.

Within this broader cultural landscape, the ritual dance known as Kabasaran represents a distinctive expression of Minahasan cultural identity in North Sulawesi, Indonesia (Rahman 2022, Sunarmi and Luntungan 2019). Across Minahasan communities, the dance is referred to by several names, including Kabalarian, Kawasaran, Sakalele, or Cakalele, reflecting linguistic diversity and locally grounded interpretations of shared tradition (Tumuju 2014). Kabasaran was formally recognised as part of the intangible cultural heritage of North Sulawesi in 2014, marking its acknowledged significance within regional cultural history (Mokodongan and Djakaria 2022).

Historically, Kabasaran functioned as a war dance performed by men designated as village guardians, through whom ideals of courage, vigilance, and communal protection were embodied (Kaunang 2022). Beyond its martial character, the dance operated as a cosmological ritual that affirmed the community's readiness to defend both its territory and its relationship with ancestral and non-human forces (Rahman 2022). Following the cessation of inter-village warfare, Kabasaran performers gradually assumed new ceremonial roles, often assisting a ritual specialist known as *Walian*. During the Dutch colonial period in the mid-nineteenth century, the dance was further adapted into a welcoming performance, marking a significant transformation in its social function (Graafland and Montolalu 1991, Mokodongan and Djakaria 2022). In subsequent decades, Kabasaran continued to evolve and is now commonly presented in public ceremonies, cultural festivals, and tourism events, extending its meaning beyond the original village-based ritual context.

Costume and performance attributes constitute central elements of Kabasaran. Earlier forms of the dance employed costumes made from bark cloth, while later adaptations introduced textile fabrics, predominantly in red tones. A range of accessories, including headgear, headbands, necklaces, bracelets, spears, and shields, completes the dancers' appearance. Of particular significance is the use of ornaments derived from animal body parts, which historically served not only decorative purposes but also conveyed symbolic meanings embedded within Minahasan cosmology (Kaunang 2022).

Despite their cultural importance, the symbolic and ecological dimensions of animal-based ornaments in Kabasaran have received limited scholarly attention. Previous studies have largely focused on the historical development of the dance (Nismawati et al. 2021) and its social and performative functions (Lala et al. 2021, Rahman 2022). Far fewer studies have examined the symbolic roles of animals within the performance or analysed how shifts in material use relate to contemporary conservation ethics. This gap is noteworthy, as animal motifs in Kabasaran operate simultaneously at aesthetic, spiritual, ecological, and ethical levels. From an ethnozoological perspective, animals represented in the dance are not treated as passive symbols but as active agents within the Minahasan symbolic universe, mediating relationships between the human, spiritual, and natural realms.

Building on this context, the present study examines the symbolic meanings of animal elements in the Kabasaran dance and analyses how these meanings intersect with issues of conservation. Specifically, the study aims to (1) document the manifestation of animal representation in costumes and performance attributes, (2) explore how these representations are interpreted by practitioners and community members in relation to identity, cosmology, and ecological knowledge, and (3) assess how transformations in materials and performance contexts are understood to influence conservation-related practices. By integrating perspectives from ethnozoology, dance semiotics, and human–animal relations, Kabasaran is situated within broader discussions of intangible cultural heritage and ecological ethics. Through this lens, the dance is approached as a dynamic cultural system in which embodied animal symbolism continues to respond to social and environmental change.

2. Materials and methods

2.1. Study area

The research was conducted in 2025 in Minahasa Regency, Tomohon City and Manado City, North Sulawesi Province, Indonesia. The geographical location of the study area is presented in Figure 1. The study focused on the communities of the Tombulu ethnic group, where the Kabasaran dance continues to be practised as an integral element of Minahasan cultural heritage. This area was selected due to the persistence of ritual performance traditions and the continued use and reinterpretation of symbolic costume elements associated with Kabasaran.

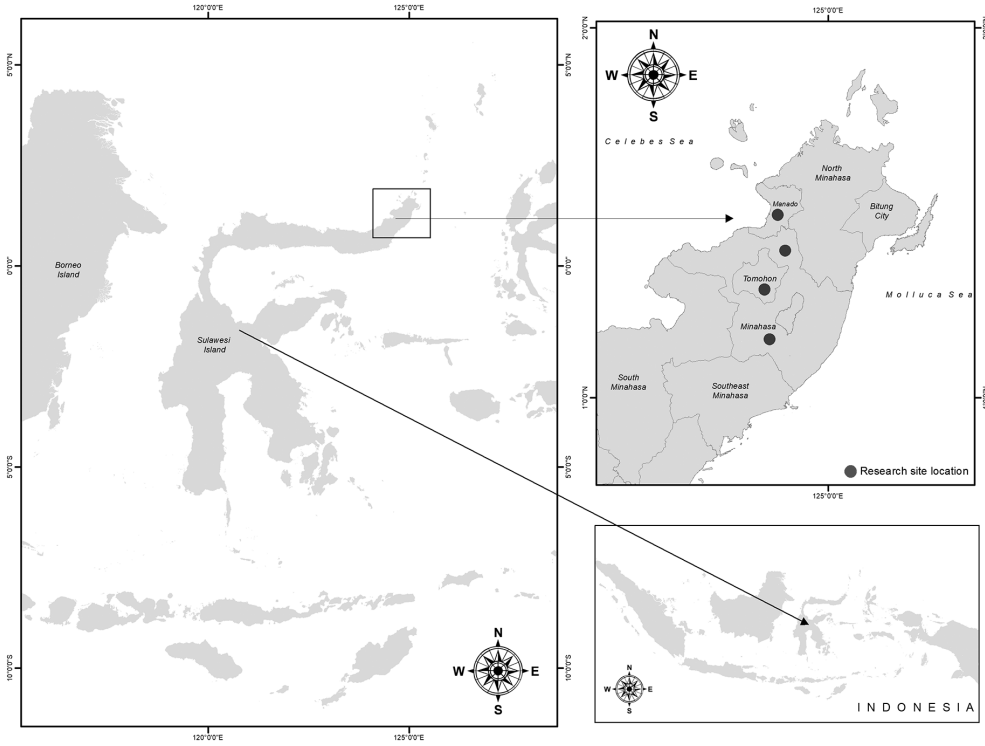

Figure 1. Location of the study area in Minahasa Regency, North Sulawesi, Indonesia, where the Kabasaran dance is practised.

2.2. Data collection and ethical considerations

A qualitative descriptive approach was adopted, combining semi-structured interviews with direct observations (Ruslin et al. 2022). Primary data were obtained through face-to-face interviews with selected participants, including Kabasaran performers, Minahasan cultural experts, and artisans involved in the production and maintenance of traditional dance costumes. Semi-structured interview guidelines were employed to allow flexibility in exploring cultural interpretations, symbolic meanings, and perceptions related to the use of animal elements and conservation practices.

In addition to interviews, direct observations were conducted during performances and in workshops where costumes were produced or maintained. Various costume models were examined in order to document the presence of animal-derived components as well as substitute materials. Observational data were recorded using standardised data sheets, which included information on costume components, animal species represented, specific animal parts referenced, and their associated symbolic meanings.

All research activities were carried out in accordance with ethical principles of cultural sensitivity, environmental responsibility, and informed consent. Prior to participation, the objectives and procedures of the research were clearly explained, and consent was obtained both verbally and in writing. Participants were informed that their contributions would be used exclusively for academic purposes, and confidentiality was maintained throughout the research process.

Given the cultural and spiritual significance of the Kabasaran dance, particular attention was paid to respecting local customs and belief systems. Permissions were obtained from community leaders and cultural custodians before any documentation of performances or costume elements was undertaken. No animal materials were collected for research purposes; observations were limited exclusively to existing artefacts and costumes. This approach ensured compliance with ethical research standards while also aligning with principles of wildlife conservation.

2.3. Data validation and triangulation

To enhance reliability and credibility, data triangulation was employed by cross-referencing information obtained from interviews, direct observations, and document reviews. Statements provided by participants were compared with visual documentation, written records, and existing literature on Minahasan cultural traditions. In cases where discrepancies emerged, follow-up interviews were conducted to obtain clarification.

Member checking was also undertaken by sharing preliminary interpretations with selected participants in order to confirm their accuracy. This process contributed to the transparency of the analysis and reduced potential researcher bias in the interpretation of cultural and symbolic meanings.

2.4. Data analysis

All qualitative data were transcribed, organised, and analysed descriptively. The analytical process was conducted in several stages. First, interview transcripts and observational notes were coded to identify recurring themes and symbolic elements. These codes were subsequently grouped into broader thematic categories, including: (1) animal representations in Kabasaran costumes and performance attributes; (2) community interpretations of symbolic, ritual, and cosmological meanings; and (3) transformations in material use and their perceived implications for conservation ethics.

A comparative thematic analysis was then performed by examining relationships between field data, participant narratives, and secondary sources. This approach enabled the identification of patterns linking animal symbolism with ecological awareness and adaptive cultural practices. The findings were presented through a combination of tables, figures, and narrative descriptions, allowing visual and textual data to be integrated in order to convey the multidimensional significance of animal elements within the Kabasaran dance.

3. Results and discussion

The Kabasaran dance was historically derived from Minahasan warrior traditions and is commonly associated with the *Waranei*, ancestral warriors who were believed to protect the land and community of Minahasa. In its contemporary form, Kabasaran is no longer confined to martial or ritual contexts but is widely performed during welcoming ceremonies, customary rituals, weddings, funerals, and other significant social events. This transformation reflects the dynamic nature of the dance as it continues to be recontextualised within changing social and cultural settings while retaining its symbolic core.

The analysis revealed that a minimum of 13 animal species were represented in the elements of the Kabasaran dance, either through the use of original animal body parts or through symbolic and artistic representations. These animals were incorporated primarily into costume accessories and performance attributes, indicating their central role in the visual and symbolic composition of the dance. When classified taxonomically, mammals constituted the largest proportion of the represented species (seven species, 53.8%), followed by birds (four species, 30.8%), and reptiles (two species, 15.4%) (see Table 1).

Based on the originality of the materials employed, the animal elements identified in the Kabasaran dance were found to consist predominantly of authentic animal-derived components (62%), while the remainder took the form of symbolic or artistic representation (38%). Overall, approximately two-thirds of the recorded elements were associated with original animal materials, whereas the rest reflected representational substitutions. The distribution of animal-derived materials varied across different categories of dance accessories. Headgear was identified as the component most frequently incorporating animal body parts, followed by items of clothing, wrist bracelets, and necklaces, which represented the least frequently documented forms of animal-based materials utilisation. This pattern suggests a selective emphasis on body parts and accessories that are visually prominent during performance and symbolically associated with strength, protection, and ritual authority (see Figure 2).

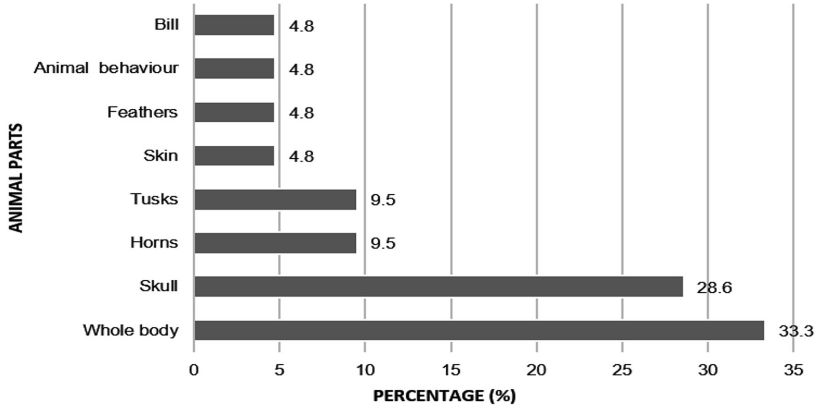

Figure 2. Percentage of animal parts used in the Kabasaran dance.

Table 1. Ethnozoological elements identified in the parts of the Kabasaran costume

Order / Family	Scientific name	Common name	Animal characteristics and behaviour	Utilisation	Items	Habitat	IUCN status	Gov. Reg. No. 106/2018 (Protected)	Endemic to Sulawesi	Symbolic meaning
Mammalia										
Artiodactyla										
Bovidae										
	Bubalus depressicornis	Lowland anoa	Horns	Original parts	Headgear	W	EN	Yes	Yes	Used by leaders, symbolising leadership, strength, and bravery
			Skull	Original parts	Clothing					Symbolising the wearer's identity as a hunter
	Bubalus quarlesi	Mountain anoa	Horns	Original parts	Headgear	W	EN	Yes	Yes	Used by leaders, symbolising leadership, strength, and bravery
			Skull	Original parts	Clothing					Symbolising the wearer's identity as a hunter
Cervidae										
	Rusa timorensis	Timor deer	Skin	Original parts	Drum skin	W	VU	Yes	No	Part of the musical instruments accompanying dancers
			Skull	Original parts	Clothing					Symbolising the wearer's identity as a hunter
Suidae										
	Sus celebensis	Sulawesi warty pig	Tusks	Original parts	Anklet, bracelet	W	NT	No	Yes	Symbolising strength
	Babyrousa celebensis	Sulawesi babirusa	Skull	Original parts	Clothing	W	VU	Yes	Yes	Symbolising the wearer's identity as a hunter
			Tusks	Original parts	Anklet, bracelet, headgear					Symbolising strength

Table continued on the next page

Table 1. (Continued)

Order / Family	Scientific name	Common name	Animal characteristics and behaviour	Utilisation	Items	Habitat	IUCN status	Gov. Reg. No. 106/2018 (Protected)	Endemic to Sulawesi	Symbolic meaning
Primates										
Cercopithecidae										
	Macaca nigra	Celebes crested macaque	Skull	Original parts	Headgear, clothing	W	CR	Yes	Yes	Symbolising the wearer's identity as a hunter
Proboscidea										
Elephantidae										
	Elephas maximus	Asian elephant	Skull	Original parts	Bracelet	W	EN	Yes	No	Used by leaders, symbolising leadership
Aves										
Bucerotiformes										
Bucerotidae										
	Rhyticeros cassidix	Knobbed hornbill	Beak	Original parts	Headgear	W	VU	Yes	Yes	Largest beak among birds, symbolising a great and dignified leader, a male–female beak pair representing wisdom
Galliformes										
Phasianidae										
	Gallus gallus	Red junglefowl	Feathers	Original parts	Headgear	W	LC	No	No	A symbol of the upper world, signifying purity of heart and the presence of ancestors
			Animal behaviour	Representation	Inspired dance movements					Agile and fierce movement imitation

Table continued on the next page

Table 1. (Continued)

Order / Family	Scientific name	Common name	Animal characteristics and behaviour	Utilisation	Items	Habitat	IUCN status	Gov. Reg. No. 106/2018 (Protected)	Endemic to Sulawesi	Symbolic meaning
Cuculiformes										
Cuculidae										
	Cuculus crassirostris	Sulawesi cuckoo	Whole body	Representation	Staff	W	LC	No	Yes	Used by leaders, symbolising a bearer of ancestral messages
Strigiformes										
Strigidae										
	Otus manadensis	Sulawesi scops-owl	Whole body	Representation	Weapon	W	LC	No	Yes	Used by leaders, symbolising a bearer of ancestral messages
Reptile										
Colubridae										
	Ptyas dipsas	Sulawesi black racer	Whole body	Representation	Weapon	W	LC	No	Yes	Adopted into the sword head, symbolising warriors or *Waranei* and war leaders, the snake motif also conveys adaptability, suggesting that survival comes not only from strength but from the ability to adapt
			Whole body	Representation	Bracelet					Crafted from bronze and typically worn by leaders, representing ancestral strength that remains connected and protective
			Whole body	Representation	Staff					Used by leaders, a staff decorated with snake motifs
Cylindrophiidae										
	Cylindrophis ruffus	Common pipe snake	Whole body	Representation	Headgear	W	LC	No	No	Made of bronze and used by leaders, symbolising the wearer as a connector between humans, the universe, and the Almighty
			Whole body	Representation	Necklace					Used by leaders, symbolising leadership

W = Wild, EN = Endangered, VU = Vulnerable, NT = Near Threatened, CR = Critically Endangered, LC = Least Concern

3.1. Symbolic representation of animal behaviour in dance choreography

Kabasaran is characterised as an energetic dance in which vigour, alertness, and martial spirit are symbolically articulated through body movement. The choreography is performed in close coordination with the accompanying rhythm, resulting in a highly synchronised and expressive performance. Movement in Kabasaran is not conceived merely as physical display but as symbolic language through which cultural values and behavioural ideals are conveyed.

A Kabasaran performance is generally structured into three sequential parts. The first part, known as *Sumakalele*, depicts scenes of warfare and combat. In this phase, movements representing pursuit, confrontation, and attack are emphasised. As noted by Mokodongan and Djakaria (2022), dancers perform a series of forward leaps, backward steps, and defensive gestures accompanied by forceful vocalisation, all of which are intended to evoke the intensity of battle and determination of the warrior.

The second part, referred to as *Kumoyak*, derives from the Minahasan term meaning to swing or move vigorously in a rhythmic and energetic manner, particularly in relation to weapon handling. This segment is commonly interpreted as a ritualised chant aimed at calming the soul and honouring the spirits of those who were defeated in battle (Tumuju 2014). Through these movements, the transition from aggression to spiritual reconciliation is symbolically enacted.

The third part, known as *Lalaya'an*, represents the celebration of the victory. In this phase, the dancers display expressions of joy and relief, symbolising the release of anger and tension following the completion of warfare (Sunarmi and Luntungan 2019). Rahman (2022) has explained that the term *Kabasaran* is derived from *Wasar*, referring to a rooster whose comb has been cut to make it more aggressive. In a similar vein, Wenas (2007) has argued that the movement style of Kabasaran reflects the behaviour of two fighting cocks, closely resembling patterns observed in cockfighting.

The symbolic incorporation of animal behaviour into dance choreography is not unique to Kabasaran but forms part of a broader tradition within Indonesian performance culture. In West Java, for example, the Sundanese Kuda Renggong dance adopts equine-inspired steps and postures to express the elegance and strength of horses (Gustianingrum and Affandi 2016). In Papua, several tribal dances incorporate movements that mimic the behaviour of the bird of paradise (Cendrawasih), drawing on its visual and symbolic significance (Winarsih 2020). These parallels indicate that animals have long served as an important source of inspiration in Indonesian dance traditions, where observed behavioural traits are transformed into symbolic expressions of identity, spirituality, and human–environment relations.

Within this broader archipelagic context, Kabasaran may therefore be understood as part of an ethnozoological artistic tradition in which animal behaviour is embodied and reinterpreted through ritual performance. The symbolic presence of animal-inspired movement reinforces the view that animals are not merely referenced as aesthetic motifs but are actively engaged as cultural agents shaping the moral and cosmological dimensions of the dance.

3.2. The utilisation of animal materials in dance costumes

The costumes worn by Kabasaran dancers are visually characterised by a dominant red colour, which is commonly interpreted as symbolising courage and martial readiness. Costume elements are conventionally divided into three main components – headgear, clothing, and limb accessories – each of which carries a distinct symbolic and cultural meaning within Minahasan cosmology. The upper component, or headgear (*Porong Tokai*), represents the concept of *Gegenang*, referring to remembrance of ancestral lineage and moral conduct. The headgear consists of a woven, red-patterned headband (*Tidung*), often decorated with motifs resembling the skin of the reticulated phyton (*Malayopython reticulatus*) locally referred to as *Patola*. Although *Patola* textiles originated from India and circulated widely through maritime trade networks, their adaptation into Kabasaran costume reflects processes of cultural localisation and symbolic reinterpretation. Variations of headgear include braided rattan caps and metal helmets (*Paseki*), some of which have been historically associated with war trophies obtained during encounters with European forces (Kaunang 2021). The headgear is commonly decorated with a variety of accessories made from animal parts, fabric, and metal (see Figure 3).

Animal-derived elements constitute prominent features of the Kabasaran headgear. Feathers of the red junglefowl (*Gallus gallus*) form the most visually dominant ornamentation and are symbolically associated with purity, ancestral presence, and the upper world. The beak of the knobbed hornbill (*Rhyticeros cassidix*), locally known as *Uwak*, is incorporated to signify leadership, authority, and dignity. The species possesses the largest beak among Sulawesi birds (Kinnaird and O'Brien 1999), and in some instances the beak is used in pairs to represent balance and



Figure 3. Various types of headgear used by Kabasaran dancers:
(a) headgear made of metal (*Paseki*), (b–g) headgear decorated with feathers.

wisdom. Horns of the anoa (*Bubalus depressicornis* and *B. quarlesi*), an endemic species of Sulawesi, are reserved for leaders and symbolise courage and resilience. Interviewees indicated that, historically, the possession of anoa-derived ornaments was associated with demonstrated prowess and leadership legitimacy. Additional elements include skulls of the celebes crested macaque (*Macaca nigra*) and tusks of the babirusa (*Babyrousa celebensis*), reflecting the diverse symbolic roles attributed to wildlife within the Kabasaran ceremonial attire. Among the Tombulu ethnic group, a bronze ornament shaped as a two-headed serpent (*Cylindrophis ruffus*), locally referred to as *Rembet ni Wailan*, is worn exclusively by leaders (*Tonaas*). This motif represents a mediating force between humans, the cosmos, and the supreme creator (*Empung Wailan Wangko*), reinforcing the association between animal symbolism and cosmological authority.

The central component of the costume, known as *Karai* (clothing), is associated with the concept of *Pemendem*, representing emotional balance and self-control. Historical transformation of this component reflects broader socio-cultural change. In the early nineteenth century, the Kabasaran attire consisted primarily of a loincloth (*Cidako* or *Wuyang*) made from bark fibres of the Tayapu tree (*Trema orientalis*) (Mokodongan and Djakaria 2022) (see Figure 4a). During the colonial period, woven textiles, such as a shirt and trousers, were gradually incorporated, accompanied by sashes and a belt crafted from *Patola* cloth. By the 1950s, shortages of local textiles led to the adoption of fabrics from Kalimantan and Timor, whose motifs were perceived as compatible with Minahasan designs (Kaunang 2022). Since the early 2000s, bark cloth has been selectively reintroduced and continues to coexist with contemporary materials across different Kabasaran communities.

Accessories worn on the chest and neck have undergone marked symbolic transition. Earlier practices reportedly involved the display of human heads as trophies of warfare, signifying valour, strength, and victory (Kaunang 2022). Over time, these elements were replaced by necklaces composed of beads, metals, and animal-derived materials. At present, the skulls and tusks of the babirusa, the lowland or mountain anoa, and the celebes crested macaque are commonly fashioned into necklaces, signifying courage, ancestral authority, and ritual status (see Figure 4b–e). The designation of the wearer as a "hunter" has likewise shifted from a martial context associated with territorial defence to a subsistence-oriented meaning linked to livelihood practices, reflecting broader transformations in Minahasan social identity.

Over time, this meaning was gradually reoriented towards the role of a wildlife hunter, whose activities were undertaken to meet subsistence needs and sustain daily life. This semantic shift has been understood as reflecting broader cultural transformations within Minahasan society, in which symbolic representations of warfare were progressively replaced by expressions of livelihood, ecological knowledge, and ancestral identity. Field observations further indicated that ornaments displayed in the central part of the costume, particularly on the chest, were no longer composed solely of animal-derived elements but had been modified through the incorporation of plant-based materials, as illustrated in Figure 4. These additions

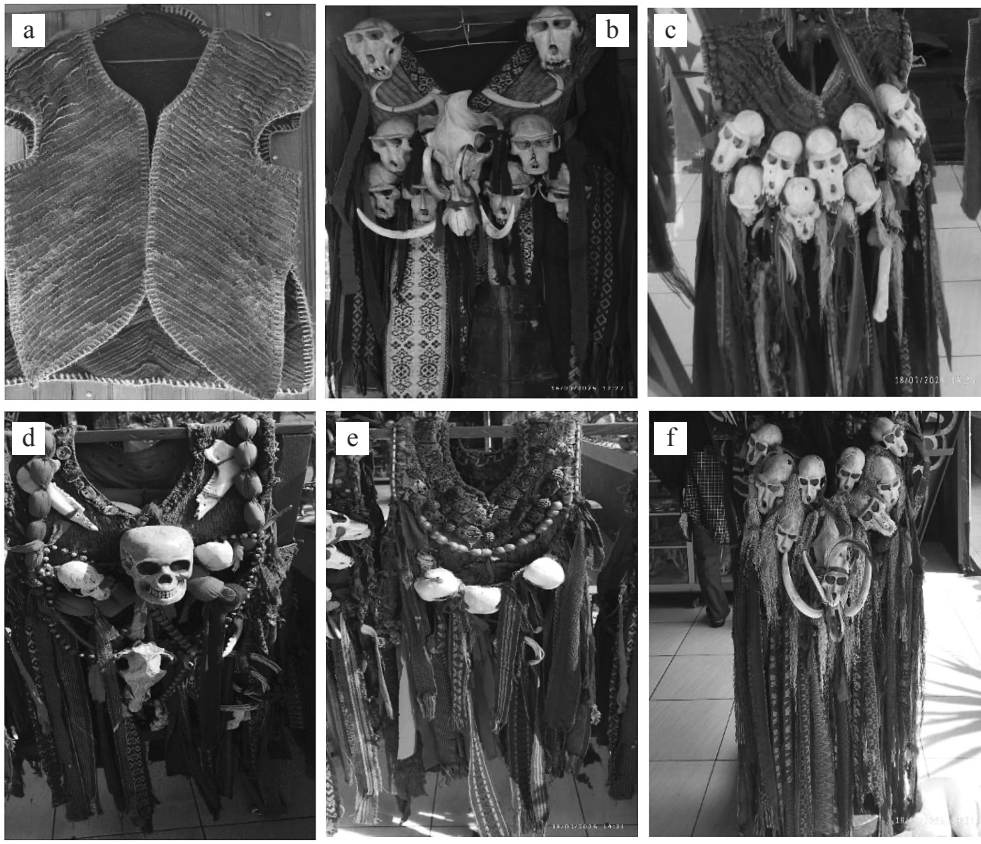

Figure 4. Variations of Kabasaran dancer costumes: (a) clothing made from the bark fibres of *T. orientalis*, (b–c) costumes incorporating animal-based ornaments, (d–f) costumes combining animal- and plant-derived ornamental elements.

included fruits of *Elaeocarpus* spp., sugar palm fruits (*Arenga pinnata*), pieces of coconut shell *(Cocos nucifera*), and dried rattan woven into decorative components.

Species of the genus *Elaeocarpus* are widely recognised for their economic, cultural, and utilitarian significance across Southeast Asia. Several species have been used for timber and edible fruits, while their seeds have been extensively utilised in the production of ritual and ornamental objects, including rosaries, bracelets, and necklaces, often imbued with symbolic and magico-religious meanings. In ritual contexts, the use of *Elaeocarpus* spp. seeds has been consistently documented as symbolising protection, continuity, and spiritual balance, reflecting their enduring role within a culturally embedded belief system (Prasannan et al. 2020, Sharma et al. 2023).

The third component is constituted by the accessories worn on the hands and feet, collectively referred to as *Keketer*, which are symbolically associated with strength, particularly the spiritual power believed to originate from the divine. This

component is characterised by bracelets made from various materials, including metal, elephant ivory, or woven bands adorned with the teeth of animals such as *Babyrousa celebensis* and *Sus celebensis*. Small bells are frequently added attached to these accessories to provide rhythmic accompaniment, enhance the dynamism of the movements, and intensify the overall expressive quality of the dance. As with necklaces and other metal ornaments, metal bracelets were traditionally worn exclusively by leaders. These objects have been inherited across generations and are regarded as possessing significant historical value.

Notably, bracelets made from elephant ivory as well as bracelets made from other metals have also been recorded, indicating external influences and long-standing cultural interaction. Evidence from this study is interpreted as indicating the historical involvement of Minahasan and wider North Sulawesi communities in long-distance trade networks. Elephants are recognised as Asiatic fauna that are not found in Wallacea or on mainland Sulawesi, and the presence of ivory artefacts is therefore attributed to trading relationships with other regions of the Indonesian archipelago.

Archaeological evidence from sites across Indonesia has documented that high-value commodities such as ivory, glass beads, and metal objects were widely circulated through maritime trade routes that had already been active since the first millennium CE (Hung et al. 2007). The discovery of prestige goods in Sulawesi, including elephant ivory, has accordingly been interpreted as reflecting the integration of local communities into regional exchange networks connecting western Indonesia, the Philippines, and mainland Southeast Asia (Bellina 2014). Consequently, the ivory bracelets found in the Minahasan region are understood not only as markers of social status but also as important archaeological evidence of cultural and economic interactions along ancient maritime trade routes in the Indonesian archipelago. A detailed visual representation of Kabasaran costumes and ornaments is provided in Figure 5.



Figure 5. Detailed visual of the Kabasaran dance costume.
The numbered parts are described on the next page.

COSTUME PARTS	A. Headgear (*Porong Tokai*)	A.1	The headband (*Tidung*) was traditionally made of *Patola* patterned fabric and was decorated with a two-headed serpent ornament crafted from bronze.
		A.2	An ornament was made from the horns of the anoa (*Bubalus depressicornis* and *Bubalus quarlesi*).
		A.3	An ornament was traditionally made from the white junglefowl feathers.
		A.4	An ornament was made from the beak of the Sulawesi hornbill (*R. cassidix*). A.4a represents a male beak and A.4b a female beak, distinguished by horn coloration (red in males, yellow in females).
		A.5.	An ornament constructed from the skull of *M. nigra* was typically worn on the chest, although in some cases it was incorporated into the headgear.
	B. Clothing (*Karai*)	B.1	The chest ornament was crafted from the tusks of the babirusa (*Babyrousa celebensis*).
		B.2	The chest ornament was crafted from the skull of the babirusa (*Babyrousa celebensis*).
		B.3	A metal necklace depicting a two-headed serpent motif was used exclusively by leaders.
	C. Hand and foot accessories (*Keketer*)	C.1	A pair of bronze bracelets depicting serpent motifs was worn on the arms.
		C.2	A pair of bracelets fashioned from elephant ivory was worn on the arms.
		C.3	Supplementary ornaments consisting of small metal bells were used to produce sound and to emphasise the firmness of the movements.
		C.4	Ornamental bracelets were crafted from the tusks of the Sulawesi warty pig (*Sus celebensis*) and were worn on the ankles and wrists.
	D. Instruments	D.1	The sword features a hilt shaped like a black serpent's head.

3.3. Animals in instruments

Animal elements were not only incorporated into costumes and accessories but were also embedded in the instruments used in Kabasaran performances. Traditionally, several instruments associated with the dance were produced using animal-derived materials. In addition to the headgear and clothing, Kabasaran dancers are equipped with a range of supporting implements that are integral to the performance, including swords (*Santi*), spears (*Wengkouw*), staffs, and shields. The sword, spear, and shield are regarded as essential elements, as Kabasaran is thematically rooted in warfare

and the expression of martial courage. Traditionally, swords used in the dance are made of iron and are accompanied by shields crafted from wood, reflecting both functional considerations and symbolic meanings associated with protection and combat readiness.

Notable variation has been observed in the design of sword hilts. Particular significance is attributed to the sword carried by the leader, which is distinguished by a uniquely carved hilt in the form of a serpent's head and partial body. Within Minahasan symbolic interpretation, the serpent is understood to represent the *Tonaas*, figures who were historically recognised as leaders in warfare. Rather than being associated with brute strength, the serpent is symbolically linked to adaptability and strategic resilience, conveying the belief that survival and leadership are attained through the capacity to respond effectively to changing circumstances.

Serpent symbolism is not confined to swords alone but is also manifested in the design of spears and staffs carried by leaders. The recurring representation of the serpent across multiple instruments underscores its elevated symbolic status within Kabasaran performance and Minahasan cosmology more broadly. The serpent is widely recognised as a powerful symbolic figure not only in Southeast Asia but also across diverse cultural traditions worldwide, including Greek, Aztec, and Amazonian societies, where it has been associated with transformation, protection, and continuity (Zengiaro and Jaramillo 2025). Through its incorporation into Kabasaran instruments, the serpent is thus positioned as a trans-cultural symbol that articulates leadership, adaptability, and enduring spiritual authority within the dance tradition.

Within Minahasan society, the serpent symbol is understood as a sign representing ancestral beliefs concerning the cycles of life and death. Iconographic studies of ancient stone burial structures, locally known as *Waruga*, which are megalithic stone tombs from the prehistoric period in Minahasa, have demonstrated that serpent motifs were frequently incorporated into their carved surfaces. These motifs have not been interpreted merely as decorative elements; instead, they have been understood as cosmological symbols that affirm the relationship between humans, the spirit world, and the continuity of life and death. Through such representation, *Waruga* functioned not only as burial structures but also as a material expression of Minahasan cosmological concepts related to ancestry, mortality, and the continuity of communal life (Kolibu et al. 2021).

In addition to serpents, other animals symbolically represented on spears and staffs include birds, specifically the owl, known locally as *Manguni* (*Otus manadensis*), and the Sulawesi cuckoo (*Cuculus crassirostris*), locally referred to as *Sokopek*. Both bird species are attributed particular cultural significance in Minahasa, where they are understood as messengers associated with ancestral presence. Within Minahasan cosmology, the owl in particular is not only regarded as a bearer of ancestral messages but is also interpreted as a cosmological indicator through which social and environmental conditions are read and interpreted (Kolibu et al. 2021, Rahman 2022, Tumuju 2014).



Figure 6. Animal representations embedded in Kabasaran musical instruments and ceremonial equipment, reflecting symbolic and material relationships between humans and wildlife: (a) Manguni owl (*Otus manadensis*) and black serpent motifs, (b) *Sokopek* bird (*Cuculus crassirostris*), (c) carved representation of a black serpent on a sword hilt, (d) deer skin (*Cervus timorensis*) traditionally used as the membrane of a percussion instrument.

The semiotic understanding of avian symbolism in Minahasa may be further contextualised through comparative perspectives drawn from bird symbolism in other cultural traditions. Anthropological studies have consistently demonstrated that birds are frequently positioned as mediators between the human world and the spiritual realm. Within Southeast Asia, ethno-ornithological research has similarly shown that certain bird species are perceived as moral guardians and conveyors of signs, as exemplified by the hornbill among Dayak communities in East Kalimantan (Aquarini et al. 2022).

From a broader global semiotic perspective, the role of birds as messengers has likewise been documented across a wide range of cultural traditions. In the ancient Greek thought, the owl was associated with wisdom and the capacity to perceives realities beyond the visible realm (Bontzorlos et al. 2023). Comparable symbolic interpretations have also been documented in Indian traditions, where the owl has been linked to insight, mystery, death, serenity, wisdom, magic, and supernatural power. In contrast, in Native American mythology, owls have been strongly associated with death, misfortune, and malevolent forces (Singh 2025). The recurrence of these interpretative patterns suggests that birds function as semiotic actors through which meaning is generated from the surrounding environment. Within this framework, vocalisations, flight directions, and moments of appearance are interpreted as signs that mediate human experience and forces understood to transcend empirical reality.

Beyond symbolic representation, animal elements have also been incorporated into the material culture of the Kabasaran dance through their use in performance instruments. The utilisation of animal-derived materials has been documented most clearly in the use of deer skin as a membrane in drums that accompany Kabasaran performances, alongside gongs or other percussion instruments. The deer species

involved, *Rusa timorensis*, has frequently been regarded in Minahasa and wider North Sulawesi as a population with a possible history of human introduction, given the absence of conclusive evidence confirming its status as part of Sulawesi's native fauna. Historical accounts and contemporary distribution patterns have suggested that the presence of this species in Minahasa and the surrounding regions may have resulted from human-mediated translocation in the past, although its precise origin remains uncertain. Nevertheless, the species has been observed to have adapted successfully to several habitats in North Sulawesi, where it has integrated into both the local ecosystems and cultural practices, including its role in ritual music associated with Kabasaran performances.

3.4. Intersections between cultural practices and wildlife conservation

The use of animal elements in the Kabasaran dance reflects more than the aesthetic richness of Minahasan cultural expression. It constitutes a cultural space in which symbolism, material practice, and contemporary conservation concerns intersect in complex and historically layered ways. Animals embedded in Kabasaran carry deep historical, spiritual, and cosmological meanings; however, many of these same species are currently experiencing increasing ecological pressure in the wild. This coexistence of cultural reverence and ecological vulnerability places Kabasaran within a broader biocultural tension between symbolic value and biological sustainability.

Across the attributes, instruments, and symbolic motifs associated with Kabasaran, eight endemic or native species were identified. Of these, seven are legally protected under Indonesian Ministerial Regulation No. 106/2018, indicating formal national recognition of their conservation significance. Conservation assessments further demonstrate varying levels of extinction risks among the species involved, particularly among those associated with forest habitats. The crested black macaque is classified as Critically Endangered (CR). The lowland anoa, mountain anoa, and Asian elephant are classified as Endangered (EN), while the Timor deer, Sulawesi babirusa, and knobbed hornbill are classified as Vulnerable (VU). The Sulawesi warty pig is categorised as Near Threatened (NT), whereas the red junglefowl, Sulawesi cuckoo, Sulawesi scops-owl, common rat snake, and common pipe snake are classified as Least Concern (LC) (see Table 1). This distribution reveals a notable overlap between animals that are culturally valorised and those experiencing significant ecological pressure. Kabasaran may therefore be understood not only as a form of intangible cultural heritage but also as a living interface through which cultural practice is increasingly shaped by shifting environmental realities.

From a biocultural perspective, this intersection is particularly significant. Biocultural diversity refers to the intertwined diversity of biological species, cultural practices, and languages, all of which co-evolve through long-term interactions within a complex socio-ecological system (Otamendi-urroz et al. 2025). Within Kabasaran, animals are not treated merely as decorative or representational motifs; rather, they function as meaningful symbols through which moral values, cosmological understandings, and social roles are transmitted. The anoa (*Bubalus spp.*),

for example, is widely understood as embodying bravery, resilience, and ancestral legitimacy, particularly through its historical association with ritual authority. Avian species such as the Manguni owl (*O. manadensis*) are interpreted as ancestral messengers, whose calls and appearances are read as signs mediating the relationship between the human world, the spiritual realm, and the surrounding environment. Similarly, serpent imagery carved into weapon hilts and ceremonial staffs conveys notions of adaptability, strategic awareness, and leadership wisdom rather than brute physical power.

Material practices within Kabasaran have not remained static in the face of ecological decline and regulatory change. Instead, gradual adaptations have been observed, reflecting an increasing awareness of species scarcity and legal protection among practitioners and cultural custodians. Importantly, these adaptations were not shaped solely as direct responses to state regulation. According to key interviewees, the use of animal-derived materials had already begun to decline prior to the enactment of formal wildlife protection laws, as several culturally significant species became increasingly rare in the wild.

The locally grounded awareness has subsequently been reinforced by legal frameworks, particularly Indonesian Ministerial Regulation No. 106/2018, under which many species associated with Kabasaran have been formally protected. Rather than being perceived as an external constraint, conservation regulations were generally understood to align with the existing ethical concern regarding declining wildlife populations. Consequently, material substitution has come to be widely accepted as a legitimate and responsible strategy for maintaining ritual continuity without contributing to further ecological pressure.

One of the most visible expressions of this adaptation has been an increasing use of alternative materials, such as resin, metal, or carved wood, to replaced animal-derived components formerly produced from horns, skulls, or skins of protected species. Resin-based ornaments, in particular, have been adopted to replicate the visual form and symbolic presence of animal elements while eliminating the need for continued harvesting or hunting. These substitutions are not perceived as diminishing the symbolic potency of the Kabasaran ceremonial attire; rather, the symbolic meaning is understood to be located primarily in form, narrative, and ancestral association, and not in biological materiality.

Beyond material substitution, conservation awareness has also been expressed through the careful maintenance and preservation of existing animal-based artefacts. Instead of producing new ornaments through repeated extraction of wildlife, existing costumes and ritual objects have been intentionally repaired, reused, and safeguarded. Such practices reflect a shift from extractive use towards custodial care, where cultural artefacts are treated as finite and valuable inheritances. Through this approach, the circulation of animal materials has been effectively limited, thereby reducing demand for newly sourced wildlife-derived components.

Taken together, these adaptive strategies demonstrate that Kabasaran may be understood as a dynamic cultural system capable of responding to ecological constraints without severing its symbolic foundations. Material change is not

indicative of cultural loss but is better interpreted as a form of ethnical recalibration in which ancestral traditions are reinterpreted in the light of contemporary environmental realities. Decisions to employ substitutes or to preserve existing artefacts are grounded in an understanding that cultural continuity does not depend solely on material authenticity but on sustained relationships between people, symbols, and the ecological world from which those symbols derive meaning.

From a biocultural conservation perspective, such practices illustrate how local traditions may actively contribute to wildlife protection through culturally embedded mechanisms. By reducing reliance on endangered species while maintaining symbolic coherence, Kabasaran may be viewed as an example of conservation emerging from within cultural practice rather than being imposed externally. In this sense, ritual performance functions as a site in which conservation ethics are enacted, normalised, and transmitted across generations.

4. Conclusion

This study demonstrated that the Kabasaran dance was constituted as a biocultural system in which animal symbolism, ritual performance, and ecological awareness were closely interrelated. Animal representations embedded in costumes, ceremonial equipment, and performance practice were documented, indicating that wildlife elements were systematically integrated into Kabasaran as material, performative, and semiotic components rather than functioning merely as decorative features. Testimonies from practitioners and cultural custodians indicated that these animal symbols articulated Minahasan identity, cosmological beliefs, and locally grounded ecological knowledge, positioning animals as active agents in the process of cultural meaning-making. Relational understandings between humans, non-humans, and the surrounding environment were continuously transmitted through Kabasaran via ancestral narratives, ritual functions, and embodied performances. At the same time, the study revealed that transformations in materials and performance contexts had been shaped by an increasing awareness of species scarcity and conservation ethics. Adaptive strategies were reflected in the substitution of animal-derived materials and in the careful preservation of the existing artefacts, through which ritual continuity was maintained without intensifying ecological pressure on vulnerable species. These practises, which in several cases predated and later converged with formal conservation regulations, indicated that conservation-oriented engagement had emerged from within cultural practice itself rather than being imposed externally. Taken together, Kabasaran may be situated within a broader discussion of intangible cultural heritage and ecological ethics. The dance was best understood as the dynamic form of cultural knowledge in which embodied animal symbolism continued to respond to environmental and social change. In this sense, Kabasaran offered a locally grounded model of biocultural conservation in which cultural continuity and ecological responsibility were negotiated through historically embedded practices and contemporary adaptations.

Data availability statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

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Addresses:
Diah Irawati Dwi Arini (corresponding author)
Research Centre for Biota System
National Research and Innovation Agency (BRIN), Dr. (H.C.) Ir. H. Soekarno Science Park, Jl. Raya Jakarta–Bogor Km 46, Cibinong, Bogor Regency, West Java 16911, Indonesia
Email: diah014@brin.go.id

Raden Garsetiasih
Research Centre for Biota System
National Research and Innovation Agency (BRIN), Dr. (H.C.) Ir. H. Soekarno Science Park, Jl. Raya Jakarta–Bogor Km 46, Cibinong, Bogor Regency, West Java 16911, Indonesia
Email: rade040@brin.go.id

Moh. Andika Lawasi
Research Centre for Society and Culture
National Research and Innovation Agency (BRIN), Sarwono Prawirohardjo Science Park, Jl. Jenderal Gatot Subroto No. 10, South Jakarta 12710, Indonesia
Email: moha072@brin.go.id

Pristiwanto
Research Centre for Environmental Archaeology, Maritime Archaeology, and Cultural Sustainability
National Research and Innovation Agency (BRIN), Sarwono Prawirohardjo Science Park, Jl. Jenderal Gatot Subroto No. 10, South Jakarta 12710, Indonesia
Email: pris004@brin.go.id

Salmin Djakaria
Research Centre for Manuscripts, Literature, and Oral Traditions
National Research and Innovation Agency (BRIN), Sarwono Prawirohardjo Science Park, Jl. Jenderal Gatot Subroto No. 10, South Jakarta 12710, Indonesia
Email: salm004@brin.go.id

Hasanuddin Anwar
Research Centre for Environmental Archaeology, Maritime Archaeology, and Cultural Sustainability
National Research and Innovation Agency (BRIN), Sarwono Prawirohardjo Science Park, Jl. Jenderal Gatot Subroto No. 10, South Jakarta 12710, Indonesia
Email: hasa010@brin.go.id

Irna Saptaningrum
Research Centre for Prehistoric and Historical Archaeology
National Research and Innovation Agency (BRIN), Sarwono Prawirohardjo Science Park, Jl. Jenderal Gatot Subroto No. 10, South Jakarta 12710, Indonesia
Email: irna003@brin.go.id

Ndoheba Kenda
Research Centre for Society and Culture
National Research and Innovation Agency (BRIN), Sarwono Prawirohardjo Science Park, Jl. Jenderal Gatot Subroto No. 10, South Jakarta 12710, Indonesia
Email: ndoh001@brin.go.id

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