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Artisanal fishing in a quilombola community in Recôncavo Baiano, Brazil: impacts, challenges, and future perspectives

Pesca artesanal em uma comunidade quilombola no Recôncavo Baiano, Brasil: impactos, desafios e perspectivas futuras

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ABSTRACT

Artisanal fishing remains essential for many traditional communities along the coastline of Brazil; however, environmental damage has depleted fish stocks and made working conditions difficult in some regions. As a result, fewer young people are interested in continuing this tradition. This study looks at how fishing is practiced in Santiago do Iguape, a quilombola community in Recôncavo Baiano, analyzing both the current situation and the challenges fishermen face by applying an ethicist-emicist perspective. Data were obtained using semi-structured interviews conducted with 104 fishers recruited through the snowball sampling method until theoretical saturation was achieved. This approach was supplemented by field observations and an online questionnaire targeting community youth. The findings reveal that the growth of large enterprises, chemical waste pollution, and ongoing ecosystem degradation have intensified current challenges. While 75% of young individuals have experience in fishing, a substantial number are discouraged from entering the field due to economic uncertainty, adverse working conditions, and limited resources. Despite the sociocultural legacy valued by the community, the risk of diminishing traditional knowledge transfer remains significant. As such, securing legal rights and government protection is imperative to enhance both economic and environmental outcomes and to promote the continued practice of artisanal fishing.

Keywords: traditional communities; sustainability; biocultural heritage; biocultural erosion; participatory management.

RESUMO

A pesca artesanal é uma fonte vital de renda para comunidades tradicionais na costa brasileira, mas a degradação ambiental tem reduzido os recursos pesqueiros e tornado as condições de trabalho inviáveis em algumas localidades, o que acentua o desinteresse das novas gerações em manter essa tradição. Este estudo analisa a pesca na comunidade quilombola de Santiago do Iguape, no Recôncavo Baiano, focando no estado atual da atividade e nos desafios enfrentados, a partir de uma abordagem eticista-emicista. Os dados foram coletados por meio de entrevistas semiestruturadas com 104 pescadores selecionados pela técnica *snowball sampling* (bola de neve) até a saturação teórica, complementadas por observações de campo e questionário online aplicado aos jovens da comunidade. Os resultados indicam que grandes empreendimentos, contaminação por resíduos químicos e degradação do ecossistema têm agravado a situação. Embora 75% dos jovens tenham experiencia em alguma modalidade de pesca, muitos não pretendem seguir na profissão devido à insegurança econômica, às condições insalubres de trabalho e a escassez de recursos. Apesar de a comunidade possuir um rico patrimônio sociocultural, há riscos de perdas na transmissão desse conhecimento. Portanto, é essencial garantir direitos e proteção governamental para melhorar a situação econômica e ambiental, além incentivar a continuidade da pesca artesanal.

Palavras-chave: comunidades tradicionais; sustentabilidade; patrimônio biocultural; erosão biocultural; gestão participativa.

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Introduction

Artisanal fishing is a fundamental activity for supplying fishing resources to global markets (Basurto et al., 2025). This fishing sector is the third-largest food production system in the world. In 2020, global marine production reached 90 million tons; of this amount, artisanal fisheries are estimated to account for approximately 60% (FAO, 2022). Approximately 90% of the individuals engaged in global fishing activities are associated with small-scale fisheries, which account for over half of the world's total catches (FAO, 2022; Zeller et al., 2023). These numbers highlight the social, economic, and productive significance of artisanal fishing on a global scale (Basurto et al., 2025). However, despite its relevance, this sector faces numerous challenges, including predatory fishing practices, a decline in the number of active fishers, environmental degradation in coastal areas, port infrastructure expansion, real estate speculation, and structural limitations such as low levels of education, income, scientific data, and management (Tidd et al., 2022).

Artisanal fisheries within traditional communities are fundamentally informed by Traditional Ecological Knowledge (TEK). TEK constitutes an accumulated body of knowledge, practices, and beliefs that develop through adaptive processes and is transmitted across generations via cultural means (Berkes, 2018). In Brazilian Quilombola communities, this knowledge extends beyond technical expertise, including a comprehensive understanding of ecosystem cycles, fish behavior, and climatic patterns (Diegues, 2000). The decline of this knowledge system presents significant risks to the cultural identity and the sustainable management of local resources, as traditional practices frequently incorporate sophisticated conservation strategies honed over many generations.

In Brazil, according to data from the Ministry of Integration and Regional Development (Prysthon et al., 2025), there are around 1 million registered artisanal fishers. Brazilian artisanal fishing has deep historical roots dating back to the pre-colonial period and is maintained primarily by traditional peoples and communities (Diegues, 2006). In the Northeast region, several communities depend on this activity for their subsistence, demonstrating not only its importance for food security but also its critical role in preserving fishing territories while reinforcing a profound cultural identity with the environment (Pauly and Zeller, 2016; Cinner et al., 2018).

Artisanal fishing activities are regulated by Law No. 11.959/2009, which establishes the National Policy for the Sustainable Development of Aquaculture and defines, in Article 8, this fishing modality as one "practiced directly by a professional fisherman, either autonomously or under a family-based economic system, using their own means of production or under a partnership agreement, with the catch landed and potentially employing small-scale vessels" (Brasil, 2009).

Various particularities such as social, political, and religious factors shape the uniqueness of each fishing community (Prysthon et al., 2025). Nonetheless, some key characteristics of this fishing model can be emphasized, such as the use of small vessels, self-sufficient production methods, small-scale capture for subsistence and local trade, as well as the transmission of traditional knowledge through lived experience and oral communication (Mesquita and Isaac-Nahum, 2015).

In the Iguape Valley, within the Recôncavo Baiano, there are approximately 16 traditional communities that are legally recognized as remnants of quilombos and also engage in artisanal fishing within the Marine Extractive Reserve of the Bay of Iguape. In this region, artisanal fishing, agriculture, and handicrafts are the primary sources of income and subsistence for local populations (Araújo et al., 2019). One of these communities is Santiago do Iguape, where artisanal fishing has developed extensively, becoming the main source of financial and food resources especially after the abolition of slavery, the decline in tobacco production, sugarcane, and palm oil cultivation, as well as the cessation of cargo operations at the ports of Cachoeira district and city. Moreover, this activity has become deeply intertwined with the cultural identity of the community (Araújo et al., 2019).

The coastal zone where Santiago do Iguape is located is characterized by the predominance of Atlantic Forest formations, with particular emphasis on mangrove ecosystems. These environments support high faunal diversity and provide essential ecosystem services for human well-being and the subsistence of local communities, including climate regulation, protection against flooding and coastal erosion, carbon sequestration and storage, food resource provision, and biodiversity conservation (Lee et al., 2014). However, mangroves face various threats, including environmental degradation, pollution, salinity fluctuations, sedimentation, sea level changes, and broader climate change, factors that compromise the availability of fish, crustaceans, and mollusks, as well as human sustainability and the livelihoods of local communities (Carugati et al., 2018).

The scarcity of resources and the loss of suitable fishing areas represent ongoing challenges that further increase the vulnerability of communities dependent on this activity (Lira et al., 2021; Abreu et al., 2024). This situation contributes to a declining interest in artisanal fishing and, consequently, to interruptions in the intergenerational transmission of traditional fishing knowledge (Dias et al., 2022).

Given this context, several questions arise: What is the current state of the fishing system in the community of Santiago do Iguape, and what does its future hold? Which factors does the community identify as key drivers of these challenges? What is the level of interest among young people in pursuing artisanal fishing? Is this practice truly at risk of biocultural erosion? The present study analyzes the main challenges faced by local fishermen and discusses pathways to mitigate the impacts threatening both artisanal fishing and traditional knowledge.

Methodology

Study area

The traditional quilombo community of Santiago do Iguape is located in the Iguape Valley, approximately 40 km from the urban area of Cachoeira in the Recôncavo region of Bahia, and 110 km from Salvador, at a latitude of 12°41'00"S and a longitude of 38°51'38"W.

Situated within the Atlantic Forest biome, Santiago do Iguape is part of the Marine Extractive Reserve of the Bay of Iguape, established on August 11, 2000, and legally ratified by Law No. 12.058 on October 13, 2009. The reserve covers an area of 10,082.45 hectares, encompassing the municipalities of Cachoeira, São Félix, and Maragogipe (Figure 1), aiming to protect local populations while promoting the sustainable use of resources and territories (ICMBio, 2024).

Data collection

Data collection commenced after the project was approved by the Committee of Ethics in Research with Human Beings (CEP) of the State University of Feira de Santana (UEFS), Protocol N° 6.623.420, and following registration and approval on the Chico Mendes Institute (ICMBio) platform through the Biodiversity Authorization and Information System (SISBio).

The study followed strict ethical protocols relevant to research with traditional communities. Initially, the project goals were presented to the community leader and the president of the Fishermen and Aquaculturists' Colony of Cachoeira (Z52) to secure institutional consent and establish transparency. During the individual approach, interviews were only conducted after participants signed or formally agreed to the Free and Informed Consent Form (TCLE). This process respected local oral traditions, ensuring participants fully understood their anonymity, rights to confidentiality, and the voluntary nature of their participation.

Data were collected through semi-structured interviews with adult men and women, utilizing the snowball sampling method (Bernard, 2011). To reduce selection bias and enhance representativeness, the process commenced with an initial key informant, identified by community leaders as a highly experienced local fisher. This participant established referral chains by recommending additional active practitioners. Sampling proceeded until theoretical saturation was achieved, which is defined as the point at which subsequent interviews produced no further information or themes (Glaser and Strauss, 1967).

The semi-structured interviews were conducted between May and August 2024. Complementary field observations were carried out up until December of the same year to monitor the embarkation and disembarkation activities performed by the fishermen. The interviews were recorded and transcribed as faithfully as possible to the original speech of the respondents. These data are archived at the Laboratory of Ethnobiology and Ethnoecology (LETNO) at UEFS to ensure compliance with the guarantees stipulated in the project and the TCLE.

To engage younger community members not identified through the face-to-face interviews, an online questionnaire was administered via Google Forms. It aimed to capture their interest in fishing activities and their perceptions of the estuarine ecosystem through both objective and open-ended questions regarding species, professional interest, and environmental issues. Participation criteria were: (i) being 18 years of age or older, and (ii) residing in the community.

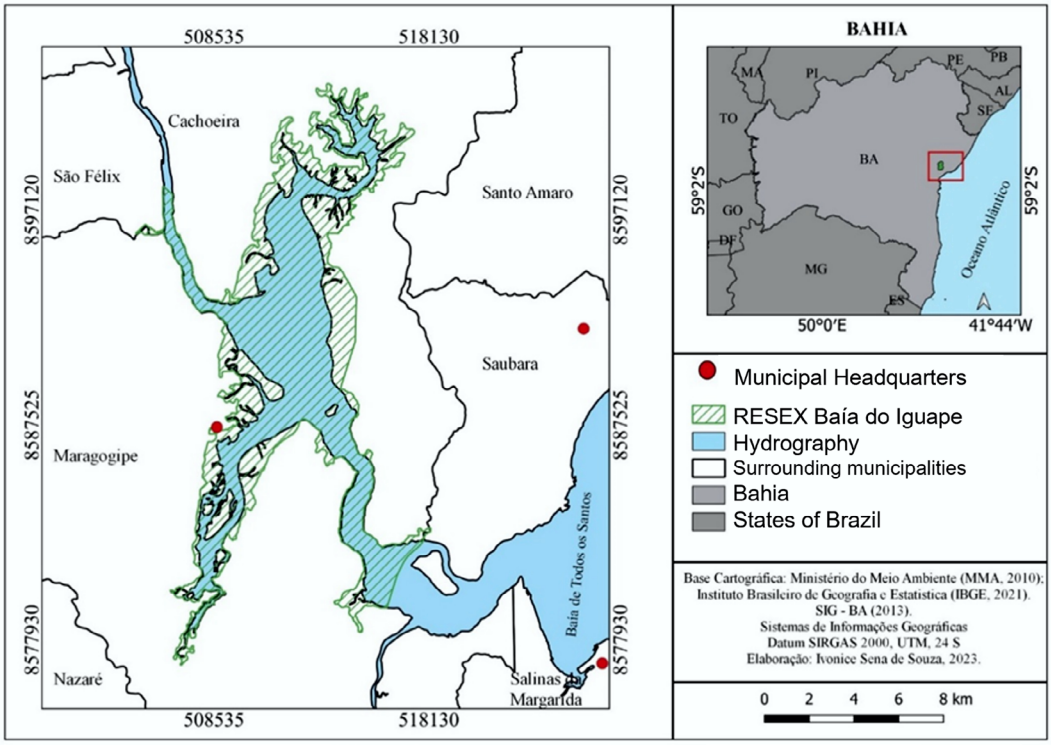

Figure 1 – Geographic location of the Baía de Iguape Marine Extractive Reserve, Bahia, Brazil.

Data analysis

The data were structured and systematized to facilitate a qualitative analysis of the dimensions of cosmos (cosmovision), corpus (knowledge), praxis (the practical application of that knowledge), eekos (understanding of natural resources, the interrelationships and connections among organisms, and the sustainable use of these resources), and consensus (local agreements regarding environmental/resource management), as expressed in the interview narratives (Gellida-Esquinca et al., 2022). Descriptive statistics were generated using Excel and Google Forms, based on the administered questionnaire.

Results and discussion

A total of 104 community residents (ages 18–79 years) were interviewed. Among them, 49 individuals (59.18%, *n*=29 male; 40.82%, *n*=20 female) participated in in-person field interviews. An additional 56 respondents completed an online questionnaire to capture non-referenced members of the community. The 49 participants contacted via snowball sampling demonstrated comprehensive knowledge of fishing tools, gear, and techniques commonly used in local fisheries (Chart 1).

Chart 1 – Local Ecological Knowledge (LEK) on fishing techniques, tools employed in resource capture, safety measures for fishers, and harvested fishery resources.

Tools used for resource extraction	Local names	Translation to English
Protective equipment	Faca	Knife
	Facão	Machete
	Pedaços de madeira	Pieces of wood
	Calça	Pants
	Luvas	Gloves
	Sapatos	Shoes
Trawl nets	Calão de terra	Land "calão"
	Rede grande	Large net
	Redinha	Little net
	Redota	Medium-sized fishing net
	Sauneira	Specific net for collecting saúna (fish)
Active collection nets and gear	Jereré	Cone net trap
	Linha	Line
Passive collection nets and gear	Arraieiro	Specific net for collecting arraia (fish)
	Camarãozeira	Specific net for collecting shrimp
	Gaiola	Cage
	Musuá	Traditional fish trap
	Paruzeira	Specific net for collecting paru (fish)
	Tainheira	Specific net for collecting tainha (fish)

Regarding fishing techniques, trawl nets (*redinha*, *rede grande*, and *redota*) were historically utilized by the community for decades, though the number of operational trawl nets has significantly declined. Respondents reported that over 35 trawl nets were once active in the community, distributed as 20 *redinhas* (requiring 3–4 fishers per operation), eight *redes grandes* (12 fishers per net), and seven *redotas* (7–8 fishers per net). Currently, only one *redota* remains operational, one *rede grande* is under repair, and just four *redinhas* were documented during fieldwork.

Viana et al. (2021) highlight that trawl nets exhibit low selectivity, capturing non-target species (bycatch) due to inadequate mesh selectivity. The impacts caused by this fishing method led to alterations in sedimentation, a reduction of organic carbon in the sediments, and consequently, drastic declines in benthic fauna biodiversity, as evidenced by Sala et al. (2021).

Given the prolonged, intensive use of trawl nets in the region, compounded by pollution and environmental degradation, these factors likely contributed to declining fish and crustacean stocks in the estuary. Participant observations during vessel departures and arrivals at Porto da Igreja and Porto da Coroa revealed low yields across all six monitored fishing trips.

While seasonal productivity fluctuations are common in fisheries, as noted in community accounts, their severity has escalated in recent years, exacerbating sectoral instability. This trend disproportionately impacts communities historically marginalized by environmental racism, further entrenching socioeconomic precarity. Notably, fishers often returned home after 8+ hours of effort with minimal catches: small quantities of fish from *redinha* operations (Figure 2a) or shrimp from *camarãozeira* trawling (Figure 2b), underscoring the growing insecurity in the sector.

Regarding resource scarcity in the community's estuary, 94% of respondents identified the construction of the Pedra do Cavalo Dam as a driver of long-term socioenvironmental impacts. It was completed in 1985 and remains fully operational as a hydroelectric plant to this day. Similar findings on the perceptions of the fishers regarding dam-induced fishery declines are discussed by Runde et al. (2020), who highlight the extensive socioecological vulnerabilities caused by dam developments in tropical rivers, particularly in relation to the availability of fish and the resilience of local communities. These effects persist to the present day, as articulated by one interviewee (Bel, Code 19, 44 years old):

> After the hydroelectric plant, our fisheries collapsed—no more goliath grouper (*Epinephelus itajara*), no more Atlantic goliath grouper (*Epinephelus quinquefasciatus*). Before the dam, when freshwater was released, the fisheries thrived; when the freshwater stopped and salinity rose, the shellfish buyers couldn't keep up. I'm telling you—I've fished since I was nine, and I remember. Now, freshwater releases do nothing. Even the oysters and mussels are dying. Pollution is rampant, but no one investigates it thoroughly.

Figure 2 – (a) Return of fishing activities using *redinha* (small trawl net); and (b) *camarãozeira* (shrimp trawl net).

Interviewees additionally cited multiple factors impacting local biodiversity:

- Industrial contamination from tannery effluent discharged by the Mastroto Corporation;
- Irregular sewage leaks from the Bahia Basic Sanitation Company (EMBASA);
- Pruritogenic agents in sediment (reported as "itchy mud");
- Non-selective 18-mm mesh nets for shrimp harvesting;
- Illegal blast fishing (use of explosives), a practice causing cascading ecosystem damage.

Blast fishing was a particularly sensitive topic, with few respondents willing to discuss it openly; therefore, most comments were shared informally after recording ended. One interviewee (R, Code 21, 64 years old) noted: "The bombs are destroying us; the 18-mm nets are wiping out the juvenile shrimp." The impacts caused by bombs (dynamite) are addressed by Hampton-Smith et al. (2021), who corroborate their devastating effects on the biodiversity of aquatic ecosystems. During fieldwork, audible detonations and decomposing fish carcasses were observed in estuarine waters and mangroves (Figures 3a and 3b), directly evidencing biodiversity erosion caused by this practice.

The use of predatory fishing techniques, including the deployment of nets with excessively small mesh sizes, has been recognized as ineffective in protecting juvenile fish and harmful to the maintenance of ecosystem balance, as extensively documented by Pauly and Zeller (2016). Blast fishing, mentioned by interviewees, is classified as an environmental crime under Brazilian Law No. 9.605/98 (Brasil, 1998) and poses severe threats to biodiversity. These destructive practices have contributed to significant declines in fish stocks and have disrupted the dynamics of estuarine ichthyofauna (Sudarmo et al., 2025). Clark (2022) further emphasizes that such methods jeopardize coastal ecosystem sustainability and exacerbate vulnerabilities in historically marginalized fishing communities, compounded by systemic inequities under capitalist and governmental frameworks.

Socioeconomic factors also influence community engagement in fishing. A shift from collective trawl net fishing (requiring 4–12 fishers per vessel) to individual *camarãozeira* (shrimp trawl) operations creates a misleading perception of increased participation due to higher canoe visibility. However, this trend reflects the near-disappearance of trawl nets, with many fishers transitioning to solitary practices, retiring, or leaving the sector entirely. One interviewee noted (Code 09, 44 years): "Years ago, my father told me there were many fishers. Now, few engage in redinha [small trawl] fishing. Shrimp trawlers have increased [...] but overall participation has plummeted. Today, there are more women than men working in fisheries."

Youth participation in fishing remains critically low, a pattern consistent with findings by Pauly (2018), who highlights that artisanal fisheries worldwide face minimal generational renewal due to environmental degradation, economic insecurity, and health risks associated with marine pollution, which discourage younger individuals from entering or remaining in the sector, while complicating the retention of aging fishers.

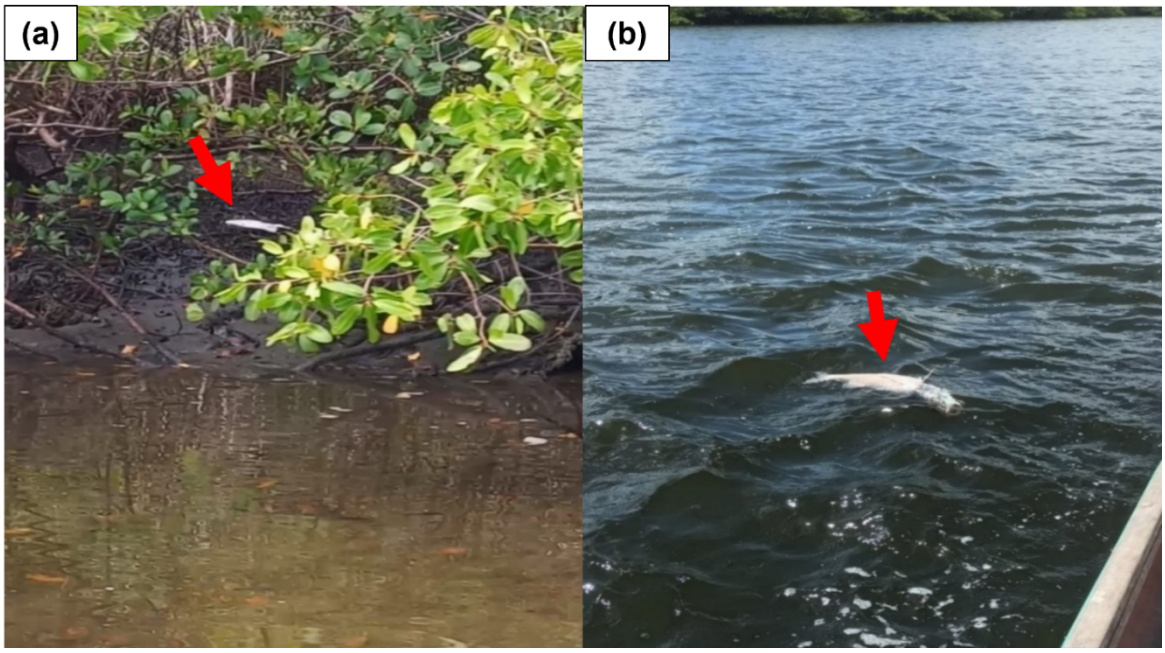

Figure 3 – (a) Decomposing fish carcass in mangrove vegetation; (b) fish carcass floating in estuarine waters due to blast fishing.

The survey data (n=56) revealed a predominantly young demographic profile, with 48.21% (n=27) of participants aged 30–40, followed by 28.57% (n=16) aged 18–25 and 23.21% (n=13) aged 25–30. The majority (85.5%, n=47) were children of fishers, while 14.5% (n=9) had no family ties to the sector. Regarding knowledge transmission, 56% (n=30) learned the activity from their parents, 22.6% (n=12) from peers, and 20.7% (n=11) from extended family. Despite strong cultural heritage, 91.1% (n=51) reported only sporadic involvement in fishing. These results highlight a critical disconnect between cultural heritage preservation and sustained engagement of younger generations, suggesting that socioeconomic and environmental pressures may be marginalizing traditional practices, even among groups with strong ancestral ties to the sector.

Regarding the current occupational activities of young individuals, 19.64% (11) identify themselves as active fishers, while 48,21% (27) are students. The remaining participants are distributed among public servants (14; 25%), with 7.1% describing themselves as both students and fishers (Figure 4). These findings align with field observations that highlight the limited participation of young people in fishing activities. However, this does not negate their knowledge or occasional involvement in fishing, although it also does not ensure the full continuity of the skills and practices, which demand immersion and consistency.

Despite this discrepancy, 67% (37) of the online questionnaire respondents identify as fishers. This phenomenon can be understood based on the notion that the identity of "fisher" is strongly associated with a sense of belonging to the territory and the local community, as discussed by Leite et al. (2023). In their study with Caiçara fishers in southeastern Brazil, the authors demonstrate that this identity is socially constructed through relationships established both in work and community interactions. This hybrid identity reinforces the "sense of community" and positions fishing as a central element in the perception of social well-being. This feeling of belonging, in turn, plays a crucial role in strengthening the awareness regarding the sustainable use and protection of territories, although it does not, by itself, ensure the intergenerational continuity of fishing practices.

In relation to the continuity of their parents' profession, 50% (28) of the young respondents stated that they have no interest in pursuing a career as fishers, while 25% (14) expressed uncertainty, indicating that they might consider it, while the remaining 25% (14) expressed a desire to follow this career path (Figure 5). The predominance of disinterest and uncertainty among young people can be partly attributed to the schooling process. As observed by Berkes (2009), when formal education systems fail to incorporate traditional fishing knowledge, they risk alienating younger generations, weakening socio-cultural ties to artisanal practices.

Furthermore, the lack of familial encouragement emerges as a determining factor. Many fishers hope their children will pursue higher education or technical courses due to the economic instability and insecurity associated with the fishing sector. Another relevant aspect is the influence of globalization, which promotes financial and social success as life goals. This phenomenon contributes to the disinterest in artisanal fishing, as its economic returns do not meet the aspirations of many young people (Suh and Nyiawung, 2023).

Addressing the final objective of this research, biocultural erosion is directly linked to the loss of socially developed knowledge within populations, encompassing both material goods such as tools and arti-

facts used in fishing and intangible knowledge, including cultural practices, sustainable resource management techniques, and other forms of knowledge transmitted across generations, as well as biodiversity itself (Lindholm and Ekblom, 2019). This loss of traditional knowledge, especially regarding culturally significant species, undermines the capacity of communities to sustainably manage and conserve their natural resources (Reyes-García et al., 2023).

Biocultural erosion refers to the gradual process of loss or transformation of a community's knowledge, cultural practices, and ecological understanding, often driven by environmental, social, or economic changes (Lindholm and Ekblom, 2019). The loss of such knowledge undermines the community's ability to interact sustainably with its environment, directly affecting biodiversity conservation and natural resource management (Díaz et al., 2019). This process is slow and continuous, which makes it difficult to detect, especially due to the scarcity of empirical evidence in the literature related to artisanal fishing. Furthermore, the preservation of traditional knowledge is essential for socioecological conservation, as demonstrated in studies that emphasize incremental learning and community adaptation to environmental change (Turner and Berkes, 2006).

"Artisanal fishing", a concept, exemplified by the Xávega model in Portugal, is defined by distinct operational characteristics and is currently facing significant risks of decline due to the decreasing participation of younger generations. Traditionally maintained by older fishers, this activity faces challenges that have led to a notable shift of labor towards alternative economic sectors such as tourism (Pascual-Fernández et al., 2019).

In Brazil, the aging demographic of fishing communities represents a critical threat to the transmission of local ecological knowledge, which is essential for the sustainable management of estuarine ecosystems. This situation is exacerbated by insufficient governmental support to ensure the economic security of fishers, along with the detrimental impacts of coastal environmental degradation and contamination, especially from chemical pollutants such as petroleum and its derivatives that collectively contribute to the disengagement of youth from artisanal fishing. Consequently, young people often seek more stable socioeconomic opportunities, raising concerns about the continuity of artisanal fishing practices and the conservation of traditional knowledge and associated biodiversity (Suh and Nyiawung, 2023).

Young people have often witnessed their parents suffering from chronic pain and a range of health issues linked to prolonged engagement in fishing activities, inadequate nutrition, and hazardous working conditions. These factors contribute to both physical and emotional exhaustion, ultimately threatening the continuity of artisanal fisheries and the intergenerational transmission of traditional ecological knowledge. Occupational health risks of this nature have been documented in studies such as Laraqui et al. (2024), which reported a high prevalence (61.9%) of musculoskeletal disorders among artisanal fishers particularly affecting the upper limbs and lower back, also establishing significant correlations with extended working hours and poor ergonomic conditions. Furthermore, Turner (2024) highlights the cumulative health risks faced by small-scale fishers globally and their broader social implications for community sustainability.

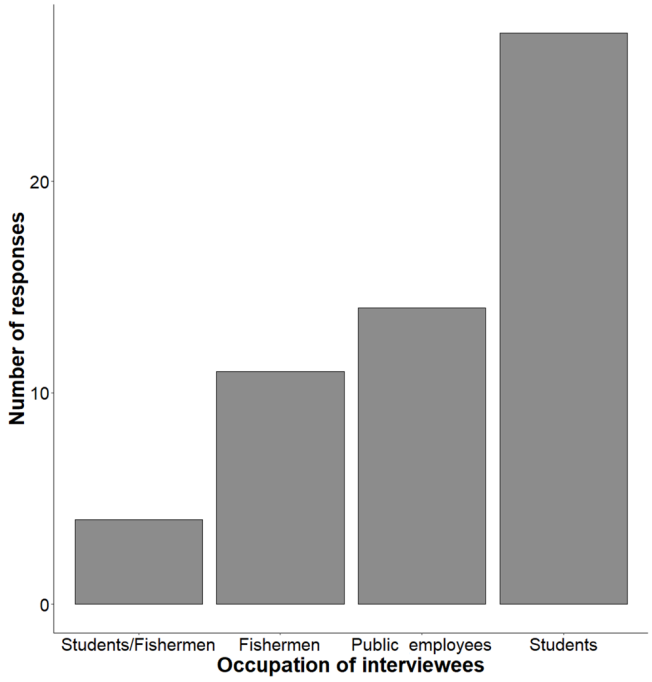

Figure 4 – Responses obtained about the occupation of the interviewees.

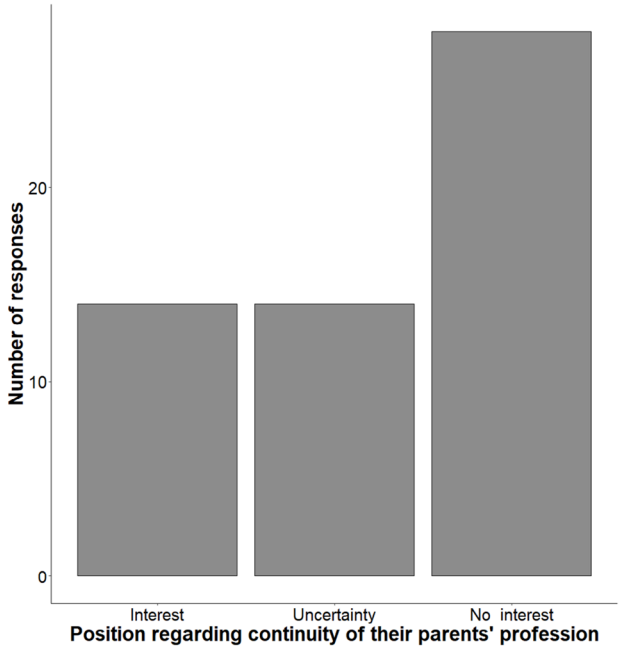

Figure 5 – Responses obtained from interviewees about the position regarding continuity of their parents' profession.

The generational gap observed in fishing activities suggests a process of 'biocultural erosion.' As younger generations migrate to urban centers or shift to other economic sectors due to resource scarcity and pollution, the intergenerational transmission of TEK is disrupted. This finding aligns with global trends where the devaluation of local ecological knowledge weakens community resilience against environmental change (Aswani et al., 2018). The loss of these practices acts as a feedback loop: without the cultural incentive to fish, the traditional monitoring of the estuary, previously performed daily by fishers, disappears, leaving the ecosystem more vulnerable to external industrial impacts.

These elements drive younger generations away from an activity that is integral to the culture, economy, and identity of their communities. Although fishers themselves point out that it is unlikely for the practice to disappear entirely, the progressive reduction in youth participation is inevitable. Consequently, there may be fragmentation in the transmission of local fishing knowledge, risking complete interruption and subsequent biocultural erosion of this knowledge. Older individuals who still engage in the activity are beginning to experience physical limitations that may lead them to retire from fishing. Biocultural memory, a fundamental mechanism for preserving and transmitting knowledge is also at risk of being forgotten as active participation in artisanal fishing declines.

Conclusions

Artisanal fishing in Santiago do Iguape is a cornerstone of local culture, shaping the identity of the community and providing both food and financial stability. Although generations have passed down Traditional Ecological Knowledge (TEK), outside influences like industrial pollution and overfishing are increasingly threatening the health and rights of the residents, as well as the sustainability of their estuarine environment.

A breakdown in passing this knowledge between generations directly endangers the resistance of the community. To address this, educational programs that celebrate and incorporate local wisdom should be established in schools and local groups. Alongside education, improving working conditions and guaranteeing fair pay are crucial steps to attract younger participants and halt the loss of cultural and ecological diversity.

For managing territory, mere consultation isn't enough; there needs to be real shared management between stakeholders. Enhancing governance of the Marine Extractive Reserve (Resex) demands stricter enforcement from authorities and stronger participation from local associations in all decision-making. Future studies should focus on long-term research into biocultural erosion, helping to create strategies that will protect traditional fishing ways as well as the ecological health of Recôncavo Baiano.

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Authors' Contributions

Santos, L. S. P.: conceptualization; data curation; formal analysis; investigation; methodology; validation; visualization; writing – original draft; manuscript writing. **Souto**, F. J. B.: supervision; validation; writing – original draft; writing – review and editing. **Braga**, H. O.: formal analysis; validation; visualization. **Koch**, E. B. A.: formal analysis; validation; writing – original draft; visualization. **Costa Neto**, E. M: conceptualization; data curation; project administration; supervision; writing – original draft; writing – review and editing; formal analysis; validation; visualization.

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