Between batumes and swamps: the life of the isqueiros of the North Pantanal

Entre batumes e alagados: a vida dos isqueiros do Pantanal Norte

Entre batumes y pantanos: la vida de los gabarreros del Pantanal Norte

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Abstract
This experience report is the result of periods of experience in environments of live bait collection and in camps of artisanal professional fishermen categorized as isqueiro (live bait catchers), in the North Pantanal region, aiming to know and experience this activity. The experience took place at two collection points along the Paraguay River, 75 km upstream from the urban center of Cáceres-MT, and at another point further away, about 250 km. The activities took place in February and July 2022. During this period of experience, the techniques used to capture live baits, the social organization, and the challenges faced by these actors in the development of the activity were observed. After this period, it is observed that there is a vertical social organization in which knowledge is passed from generation to generation; the bait catchers carry out the activities in pairs, due to the risks involved in the work, both in the collection of live baits and the capture of termites to supply the traps. There are existing conflicts related to the capture of termites to capture live baits since there is no land in several regions where catchers are camped and they even use private areas to develop their activities.

Keywords: Live baits; Termites; Wetlands.

Resumo
Este relato de experiência é resultado de períodos de vivência em ambientes de coletas de iscas vivas e em acampamentos de pescadores profissionais artesanais categorizados como isqueiro, na região do Pantanal Norte, objetivando conhecer e vivenciar esta atividade. A vivência ocorreu em dois pontos de coletas ao longo do rio Paraguai sendo, a montante 75km do centro urbano de Cáceres-MT, e em outro ponto mais distante, cerca de 250Km. As atividades ocorreram nos meses de fevereiro e julho de 2022. Durante esse período de vivência foram observadas as técnicas utilizadas para a captura de iscas vivas, a organização social e os desafios enfrentados por estes atores no desenvolvimento da atividade. Após esse período, observa-se que existe uma organização social de forma vertical em que, os conhecimentos são passados de geração a geração; os isqueiros realizam as atividades minimamente em duplas, devido aos riscos envolvidos do trabalho, tanto na coleta de iscas vivas como a captura de cupins para suprir as armadilhas. Há conflitos existentes relacionados à captura de cupins para captura de iscas vivas, uma vez que não existe terra firme em diversas regiões em que os isqueiros ficam acampados e os mesmos utilizam, inclusive, áreas privadas para desenvolver suas atividades.

Palavras-chave: Iscas vivas; Cupins; Região alagável.
Resumen
Este informe de experiencia es el resultado de los períodos de experimento en ambientes de recolección de carnada viva y en campamentos de pescadores profesionales artesanales categorizados como mecheros, en la región del Pantanal Norte, con el objetivo de conocer y experimentar esta actividad. La experiencia tuvo lugar en dos puntos de recogida a lo largo del río Paraguay, 75 km aguas arriba del centro urbano de Cáceres-MT, y en otro punto más alejado, unos 250 km. Las actividades se desarrollaron en febrero y julio de 2022. Durante este período de experiencia se observaron las técnicas utilizadas para la captura de cebos vivos, la organización social y los desafíos que enfrentan estos actores en el desarrollo de la actividad. Después de este período, se observa que existe una organización social vertical en la que el conocimiento se transmite de generación en generación; los mecheros realizan las actividades en parejas, debido a los riesgos que implica el trabajo, tanto en la recogida de cebos vivos como en la captura de termitas para abastecer las trampas. Existen conflictos relacionados con la captura de termitas y cebo viva, ya que en varias regiones no hay terrenos donde acampen los lancheros e incluso utilizan áreas privadas para desarrollar sus actividades.

Palabras clave: Cebos vivos; Termitas; Humedale.

1. Introduction
Fishing in the North Pantanal region is of notorious importance since it generates employment and income for several riverside families (Ramires et al. 2012; Corrêa et al. 2018; Costa & Asmus, 2018). One of the fishing activities that has been growing in recent years is professional artisanal fishing for the capture and sale of live bait, in which those who practice this activity are known regionally as isqueiros (Catella, 2008; Barcellini et al. 2013).

Live baits are small fish and crustaceans commonly used to attract large fish, such as painted and piraputanga (Alho, 2019). The activity of capturing live bait is intrinsically associated with regional tourism, along with recreational fishing, which is highlighted in the North Pantanal (Souza & Logarezzi, 2019). In fact, tourism in the North Pantanal has grown a lot (Font, 2018; Sudré et al. 2018; Alho, 2020), and as a result, the number of baits needed to serve this tourist sector has also grown. However, the fishermen who carry out this activity are often neglected, both by the category of fishermen and by the scientific community, which reports little about the sector (Marques, 2005).

Bait catchers are generally humble people who follow several kilometers downstream or upstream, and camp for days in places with difficult access, lack of electricity and little hygiene structure. This category is extremely important for the continuity of fishing in the North Pantanal (Sakaguchi & Ribeiro, 2020; Zeineddine et al. 2022), and must be heard in detail. Thus, the objective of this work was to know the fieldwork of live bait catchers from the North Pantanal through an experience of living in the fishermen's camps.

2. Methodology
In order to get to know this subcategory better, expeditions were carried out to closely monitor the workers, observing/experiencing what the productive network of this fishing activity is like. The experience constitutes a participant observation, in which the researcher is intensely inserted in the studied community, participating in conversations, events, and practices adopted by the members of the community (Malinowsky, 1978).

The period of experience took place in the North Pantanal, on two occasions and locations: right after the opening of the fishing season (February 2022), during the flood season, in a camp near the city of Cáceres/MT (75km) and in July 2022, during the dry season in the Pantanal. The activities were carried out in a campsite, in a very remote area, about 250 km away from the nearest city, with access only by boat. Each experience was carried out for three days (Figure 1).
During the experience, semi-structured questionnaires with open and closed questions were applied (Fiorentini & Lorenzato, 2006). This protocol was submitted and approved by the Research Ethics Committee of the Universidade do Estado de Mato Grosso under protocol number 4838654.

3. Results and Discussion

The period of experience with the catchers of the Pantanal allowed us to report experiences through contact with eight male people. The accompanied lighters had from 23 to 54 years and eight months to 20 years of experience in professional fishing. All of them were from the city of Cáceres-MT.

Bait catchers usually work in pairs (father, son, nephew and/or wife) for the extraction of live bait, being able to camp in the same place with other pairs, with the purpose of interaction and safety, since they are exposed to several dangers, such as wild and venomous animals. Also, it was observed that the lighters always travel by motorized boat, carrying reserves of fuel that are used to travel back to the city, in the paths of capturing bait and termites.

Pantanal catchers carry out this activity during the months of February to September, avoiding the prohibitive period (October to January). Both those who carry out their activities in places close to the city of Cáceres/MT, as well as those in more distant areas, are always minimally organized in pairs. The pairs work together in the extraction of live bait, considering that the activities are arduous, and require intense manual work, from the capture of the bait to the collection of fish (termites) to the displacement of the canoe through the different bays installing, reviewing and then removing the traps.

In the camps closest to the city of Cáceres, these pairs are mixed, usually formed between men and their wives (point A, Figure 1). However, in camps that are further away from the city (point B, Figure 01), same-sex pairs (male) are usually formed, between parents and children, uncles and nephews. In this sense, it can be observed that the network that constitutes the bait catching activity in this region is a vertical family network, in which knowledge is passed from generation to generation (Campanha et al. 2021).

The camps are constituted in a simple way, with few conditions of personal and collective hygiene. They are built from existing trees on the site (pillars), or wood brought by boat from other places, and tarps are used as shelter and even as
“walls” (Figure 2). In these places, there is no electricity, so their source of lighting is through generators that are activated for a period of time, after which flashlights are used to assist in night activities, which reinforces the precarious conditions during bait catching activities.

In the camp located in the most remote area, the catchers set up their temporary camps on batumes, formed by floating aquatic plants. There is practically no dry land in these places, making the work of these fishermen even more difficult. On the batume, the catchers place wood, canvas and small branches in order to build landfills in these places, mainly using the remains of the termite colonies they use to capture their bait.

Figure 2 - Presentation of the catchers' camps in the remote region of the municipality of Cáceres – MT (250 km away. A) Structure of the camps (internal image); B) Location of the camp (aerial image).

The bait catching activity starts at four o'clock in the morning, when workers wake up, drink coffee and prepare to go out in search of live bait. The capture takes place in bays along the Paraguai river, with gear such as jequi (cylindrical gear with funnel opening), net, hook and others (Moraes & Espinoza, 2001; Oliveira & Da Silva, 2013; Chaves, 2021), which are placed in the late afternoon, in different points throughout the chosen bay (Figure 3).

Figure 3 - Distribution of traps along bays in the North Pantanal, where A refers to the closest point to Cáceres-MT and point B to the most distant point.

After installing the traps, the catchers place the termites on all the jequis, in order to attract and capture as many live baits as possible (Van Huis, 2017). Termites are usually collected near the camps, however, due to the impacts of environmental fires, this search has become increasingly arduous and distant from the camps (Figure 4).

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1 A structure of plants, decomposing material and sediments.
The practice of collecting termites draws attention due to the high degree of difficulty, either due to the low occurrence in the places where live baits are captured or due to internal conflicts that occur due to these captures. Based on traditional and ecological knowledge, the bait catchers use only arboreal termites to attract and capture their baits (identification by Constantino, 1998). The places where termites are found are in batumes, floating islands covered by vegetation, not providing support for the lighters to move over them, increasing the degree of difficulty in collecting (Figure 4).

**Figure 4** - Collection of termites (termites) to serve as bait in the capture of live baits. A) Removal of termites and B) Displacement on the batumes to collect the termites.

4. Final Considerations

With the experience that aimed to know the field practice of bait catchers in the North Pantanal, it can be registered that this category of workers has a unique importance in the processes of sport fishing in which Cáceres/MT is a world reference.

They are family workers, whose knowledge passed from generation to generation, and the eight people who took part in this research showed how much nature is being modified by the action of man, as the collection sites are becoming increasingly distant from urban centers.

Camping conditions for collecting live bait are quite precarious and access to arboreal termite mounds, which are part of this activity, is exhausting because it is no longer so accessible in areas of dry land. The collection carried out in areas of difficult access, puts the catcher in unsanitary conditions and, at the risk of animal attacks. It is also worth pointing out that social relations between catchers have become sensitive, due to internal disputes for access to termite mounds.

Thus, there is a need for further research with these groups of workers and their families, aiming to know more about their experiences on the Paraguay River and suggest good practices in prevention and health care, as well as alternatives that make the activities more humanized and profitable, not forgetting environmental sustainability.

**References**


