Conservation and Society 17(2): 173-183, 2019

Article

The Displacement of Insufficiently 'Traditional' Communities: Local Fisheries in the Pantanal

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Abstract

The rise of community-based conservation (CBC) from the 1980s, heralded a paradigm shift in the global conservation and development agenda, increasing the engagement of conservationists towards the cause of the needs of Indigenous people. As a result, many international agreements were implemented, such as Indigenous and Tribal Peoples Convention (1989) and the Convention on Biological Diversity (1992). In Brazil, a National Policy for the Sustainable Development of Traditional Peoples and Communities (PNDSPCT) was introduced in 2007, which came to recognise the rights and existing sustainable use practices of 'traditional communities'. This paper uses data from a long-term ethnography of both the local people and the conservation agenda in the Pantanal wetland, Brazil, to discuss how environmentalists used the PNDSPCT to justify the displacement of local people by claiming they do not fit in any traditional community category, and instead should be called 'rural poor'. Interview-based evidence from these communities shows the contrary—pointing out a long history of occupation in the region, customary practices that guarantee sustainable use and self-recognition as a culturally differentiated group. The results are used to explore how narrow notions of indigenous identity have been used to oppress communities in Brazil and in other parts of the global south. The paper concludes that a flexible and fluid categorisation of traditional peoples or indigenous groups should be used in order to avoid reinforcing the already oppressive restrictions placed on local communities that are close to or part of conservation initiatives.

Keywords: community-based conservation, mobility, traditional communities, indigenous identity, national policy of sustainable development of traditional peoples and communities, fisheries, Pantanal, Brazil

INTRODUCTION

Community-based conservation (CBC) or community-based natural resource management (CBNRM) purports to bring a paradigm shift in the conservation and global development agenda—recognising the rights of indigenous populations

Access this article online			
Quick Response Code:	Website: www.conservationandsociety.org		
	DOI: 10.4103/cs.cs_18_58		

living in rural areas and minimising the negative consequences of conservation projects on them (Campbell and Vainio-Mattila 2003; Berkes 2007). Although CBC has only recently been incorporated by large conservation NGOs (Soulé 2013), the original concept dates back several decades. Already in 1972, during the second World Parks Congress, the presence and contribution of indigenous peoples inhabiting regions surrounding protected areas was acknowledged: 'that practice forms of agriculture specifically adapted to that ecosystem and whose cultural heritage warrants conservation and protection' (Barreto Filho 2009). The third World Parks Congress (1982) saw a milestone change; the participants chose to replace the main goal of protected areas from 'protect from the people' with 'protect for the people' (Padua and Chiaravalloti 2012).

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Further international agreements better defined and recognised the importance of traditional populations for conservation, such as The Convention 169 from International Labour Organization (ILO), elaborated in 1989, which intended to empower tribal and indigenous peoples as well as the Convention on Biological Diversity (1992), which recognised the role of Indigenous and local communities' knowledge to biodiversity conservation (article 8j) (Calegare et al. 2014).

Among the CBC national policies, the Brazilian National Policy for Sustainable Development of Traditional Peoples and Communities (*Política Nacional de Desenvolvimento Sustentável de Povos e Comunidades Tradicionais;* PNDSPCT: decree number 6040, 2007) stands out. Established in 2007, the policy was an output of a long-term political struggle that started in the 1960s during Brazil's military period (1964–1984) and came to recognise the rights and sustainable use of natural resources of 'traditional people' (Silva 2007).

National Policy for the Sustainable Development of Traditional Peoples and Communities in Brazil

In the mid-1960s, soon after the beginning of the military period in Brazil (1964), the government started to finance the 'occupation of the Amazon forest' through national integration programs, such as the construction of highways, loans for the establishment of cattle ranching and logging companies in the region, etc. As a consequence, between 1978 and 1989, the deforestation rate of the Amazon reached 19,800 sq. km per year, and the population went from 7 million in 1970 to over 15 million in 1990 (Laurance et al. 2002). The livelihoods of this new wave of migrants largely relied on clearing forest. As a result, they clashed with those who had migrated in the 1940s and whose livelihoods depended on rubber tapping and, therefore, on the forest remaining standing (Calegare et al. 2014).

The local rubber tappers, led by the rubber tapper Chico Mendes, started to claim territory to protect their livelihoods against cattle ranchers and logging companies (Mittermeier et al. 2005). Although the rubber tappers' fight started as a movement focused on social inequality, their links with the environmental agenda soon become clear and they gained international recognition from conservation foundations and large NGOs (Allegretti 2008). In 1990, after decades of political struggle, the government created the first Sustainable Use Protected Area in the world¹ which was later officially named as Protected Area with Sustainable Use of Natural Resources by the IUCN (category VI)². The main goal was to safeguard rubber tapper groups whose livelihoods were protecting the Amazon forest (Allegretti 2008). Similar protected areas were replicated in order to protect 'culturally differentiated' peoples and communities whose livelihoods were safeguarding endangered ecosystems, such as artisanal fishers in coastal areas and Babassu oil harvesters in the Atlantic forest (Silva 2005). In Brazil, these groups living in Sustainable Use Protected Areas were known as 'traditional peoples and communities' (Little 2002). It became a milestone

change in the conservation agenda worldwide, bringing about a different framework from the original USA National Parks concept of parks as enclosures (Neumann 2004). Currently, over 40% of all Protected Areas in the world acknowledge the rights of local people to live or use resources within their boundaries (UNEP-WCMC and IUCN 2016).

In 2007, the PNDSPCT came to legally recognise in Brazil 'traditional peoples and communities' (in Portuguese 'Povos e Communidades Tradicionais') (Calegare et al. 2014). The policy used a self-identification approach to identify those 'traditional' communities. Since then, communities all over the country undertaking sustainable livelihoods and who see themselves as culturally differentiated can, in theory, secure their territory and claim a Protected Area with Sustainable Use. It is important to note that, this was not focused on autochthonous Indigenous groups or rural communities descended from former slaves, since they were already covered by existing legislation, such as The Indian Statute, Law number 6001, 1973, and Brazilian Constitution of 1988, articles 68, 231, and 232 (Shiraishi-Neto 2007). Rather, the goal was to protect both the 'culturally differentiated' populations and the local environment they were part of (Lima and Peralta 2017). Therefore, PNDSPCT has a clear link with international agenda of community-based conservation.

In the Brazilian Amazon, community-based conservation policies have achieved considerable impact on the ground. Currently, there are thousands of people living within Sustainable Use Protected Areas in the Amazon, with guaranteed rights of tenure and access to natural resources (Calegare et al. 2014). In fact, some Strictly Protected Areas in the region were replaced with Sustainable Use Protected Areas, e.g., the Mamirauá Sustainable Development Reserve in the Amazon floodplain (Lima and Peralta 2017). On the other hand, some regions are far from this reality, as is the case of the 160,000 sq. km Pantanal wetland. Over the last 30 years, local fishing communities in the Pantanal ('riberinhos') have been facing strict enforcement measures to stop using the natural resources of the region. In order to justify their actions, environmentalists used Brazilian policy on traditional people and communities, arguing that the local people do not fit into any traditional community category (Franco et al. 2013). This paper uses data from a long-term ethnography of these local communities in the Pantanal and of the local conservation agenda to better understand this issue and to better improve policies focused on the identity of local communities.

DATA COLLECTION

Qualitative data was collected from local people living in the western border of the Pantanal wetland and other local stakeholders over a period of four years by the author. Between 2015 and 2016, settlement 1 (the main focus of this research) was visited 12 times, in the dry (April-June), flood (August-October), and closed fishing season (November-March). Field trips lasted between 20 and 30 days. In 2014 and 2017, field activities were more sporadic

(4 field trips each year). In total, approximately 16 months were spent in the community collecting data. The other two settlements were visited at least once a year during this period for short field trips (3-5 days).

To avoid causing any kind of offence or misunderstanding, and to follow the ethics procedure rules, before any activity of the project several ethical consents were sought. First, ethics consent was sought from the Ethics and Risk Assessment Committee of the Anthropology Department of University College, London. Then, following the Brazilian Rules of Projects for research that involves human beings (Resolution number 466 from 2012), the project was translated into Portuguese and submitted to the National Research Ethics Committee. It was approved firstly by a federal and secondly by a local ethics committee from the study region (acceptance number 828,070). Local NGOs and research institutes located near the study site were then contacted and the project was explained to them for awareness of the purpose of the research and of the form the data collection was going to take, as well as possible outcomes of the project. The same approach was carried out with community leaders. This process was followed by individual informed consent for any participant interviewed.

Semi-structured interviews (SSIs) were carried out in order to get an understanding of historical occupation, control of resources, identity, and the perspective of people on the conflict between resource use and protection. Strict data anonymity and confidentiality were observed. Participants' names and identifiable characteristics were not written down on the field notes, and the information collected was kept secure—avoiding clues identifying participants.

SSIs were carried out with groups (3-8 people) and individuals. Local people, protected area managers, policy makers, and local researchers were interviewed. Individual interviews with local people were held in specific sites where the respondent(s) could feel comfortable and confident with the interviewer. Group interviews, on the other hand, were held during iced tea drinking sessions ('tereré'), in which people sit together in each other's homes to discuss all matter of subjects.

In total, interviews were conducted with 40 people from Settlement 1, five people from Settlement 2, five people from Settlement 3, 10 people from the tourism trade group, and eight people from the protected area group. Moreover, 10 scientists, NGOs, and government institutions that are to some degree involved with the western border of the Pantanal were consulted. Many people were interviewed more than once in order to establish rapport and understand changes through time.

To better understand the spatial and historical occupation and the use of natural resources throughout the year, most of the interviews were held with scale maps of the region. Maps were printed using the new Brazilian collection of satellite images Rapid Eye with 5 m of resolution in a 1:20,000 scale. In total, eight different maps together covering the whole western border of the Pantanal region were printed. They were printed on laminated paper, which people could draw on, easily erase, and then draw again. After all interviews, pictures were taken of the locally created maps and all the information on the maps

was then erased. This allowed strict data anonymity and the avoidance of previous information biasing the next interview.

Participant observations were used throughout the fieldwork in order to understand nuances of local people's perspective of identity and resource use that were not clearly identified during the interviews and to cross-check the validity of findings from other research methods such as interviews and participatory mapping (Bernard 2006). The method consisted of, first, helping in all daily activities that local people commonly engage in, for instance gathering bait, fishing, logging, collecting manioc, cooking, cleaning fish; secondly, attending meetings such as religious meetings, birthday celebrations, and NGO meetings; and lastly, participating in leisure activities, consisting mainly of football matches' and of sitting in small groups to drink iced tea ('tereré') and exchange news. A field diary of various notes and thoughts gathered each day was kept in order to consolidate and analyse data. People in the western border of the Pantanal speak Portuguese. The author's command of the language as a native speaker and familiarity with the local idiom were essential during fieldwork.

THE CONSERVATION AGENDA AND LOCAL PEOPLE OF THE PANTANAL

The Pantanal and its environment

The Pantanal is considered one of the largest wetlands in the world, encompassing over 160,000 sq. km and three countries (Brazil, Bolivia, and Paraguay) (Keddy et al. 2009). In the floodplain area alone, there are 1,863 species of phanerogams, 269 species of fish, 141 species of amphibians and reptiles, roughly 460 species of birds, and 236 species of mammals (Junk et al. 2011). Most of these species are considered to have viable populations (not under threat), especially due to the low deforestation rate of native vegetation, with is less than 17% (IBAMA 2012).

The flood pulse is the main environmental feature of the Pantanal—all species and local people with livelihoods dependent on natural resources are directly or indirectly affected by it. The flood pulse is a direct consequence of the rainfall on the surrounding highlands between October and April (Padovani 2010). Due to the slight gradient of the terrain in the Pantanal (2–3 cm/km north to south; 5–25 cm/km east to west) the flood pulse takes 3-4 months to pass through (Junk et al. 2006).

The western border of the Pantanal is considered one of the most important areas for conservation in Brazil (Lourival et al. 2009). Due to the presence of different habitats, such as wetland, savanna, forest, and high-altitude forest, as well as low deforestation rate, it hosts rare and endangered species from different ecosystems such as jaguars (Panthera onca), bush dogs (Speothos venaticus), giant otter (Pteronura brasilienses), endemic species of amphibians, reptiles, plants, and also what is thought to be a new species of a primate (Tomas et al. 2010).

Strictly Protected Areas

In the early 1970s, following international pressure on the Brazilian Government to better protect its natural ecosystems, many Protected Areas were created (Silva 2005). The Pantanal saw its first Strict Protected Area in 1971—the Biological Reserve of Caracará (Reserva Biológica do Caracará), located in its western border (Tocantins 2011).

Soon after the creation of the Biological Reserve, high-profile environmentalists (Schaller and Vasconcelos 1978), started to pressure the Brazilian Institute of Forest Development (Instituto Brasileiro do Desenvolvimento Florestal; IBDF, currently ICMBio) to buy private farms in the region to expand the protection (Couto et al. 1975). In 1981, the Federal Government replaced the Biological Reserve with the Federal National Park of the Pantanal Matogrossense (Parque Nacional do Pantanal Matogrossense), expanding the protected area from 80,000 ha to 130,000 ha (IBAMA 2003). 10 years later, in the early 1990s, with support from the NGO, The Nature Conservancy, three other large farms were bought and converted into Private Protected Areas (Reserva Particular do Patrimonio Nacional; RPPN) (Tocantins 2011).

In 2005 and in 2006, two other Private Protected Areas were aggregated, leading to the establishment of the environment group 'Protection and Conservation Network for the Amolar Region' (Rede de Proteção e Conservação da Serra do Amolar; PCNAR, western border of the Pantanal). This is a partnership among all Protected Area managers,

including the federal agency of Protected Areas, NGOs, and local Forest Policy agents, aiming to monitor resource use across a 310 km linear river distance and adjacent channels, securing the conservation of 262,000 ha of Strict Protected Areas in the western border of the Pantanal (Bertassoni et al. 2012) (Figure 1).

However, although the creation of the PCNAR has increased biodiversity protection in an important region for conservation, it has also enhanced a conflict with the local fishing communities (Chiaravalloti, 2016). Local people claim that during the creation of the Protected Areas, they were physically and economically displaced from their original settlements and, currently, with the creation of the protection group, they are restricted from using fishing sites of fundamental importance for their livelihoods (ECOA 2013).

With the support of grassroots human rights organisations, the local people created a formal association and publicised their conflict. The local municipality built a new school in the Settlement, a public telephone was installed, and doctors and dentists go the region to assist in any disease or health problem every six months. Facing political pressure from the environmental group, the local government started to discuss relocation of the community to a new area far from the region and to rebuild the school in the proposed place (Chiaravalloti et al. 2017). The underpinning argument from the environmental group was that these people are no 'traditional community' and, therefore, have no right to a territory (as explained hereafter).

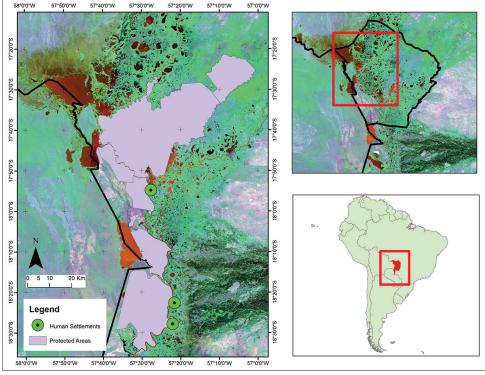


Figure 1
The western border of the Pantanal and the three settlements located near the Strict Protected Areas; from North to South: Settlement 1, Settlement 2, and Settlement 3

Are local people a traditional community?

A recent book about the conservation agenda in the western border of the Pantanal (Franco et al. 2013) summarises the ideas underpinning the environmental agenda, presenting scientific arguments which are, in reality, political views (Chiaravalloti 2016).

Franco et al. (2013) first argue that fishers from the western border of the Pantanal are not listed as part of the Pantanal's former riverine traditional communities (Neuburger and Silva 2011). Indeed, according to local researchers, the riverine communities' appearance in the Pantanal is related to the Portuguese occupation of the region in the eighteenth century (Silva and Silva 1995). After the discovery of gold mines in the westernmost region of Brazil, explorers established a route through the Pantanal waterways to reach the region and transport the gold back to the Atlantic coast. Along the way, sugarcane mills were installed and families settled on unflooded sites to provision the explorers. Riverine communities of a 'Traditional People' in the Pantanal are consequently widely conceptualised as a group of families permanently settled on an unflooded area clustered around a small sugarcane mill (Silva and Silva 1995; Neuburger and Silva 2011). However, even though the Brazilian policy on traditional peoples and communities states that self-identification is the formal way to recognise traditional communities and there have been no in-depth studies establishing who these people are, environmentalists argued that fishers from the western border of the Pantanal cannot be considered a traditional group because there are no sugarcane mills and there have never been permanent settlements in the area. The authors claim that instead they should be labelled 'rural poor' (Franco et al. 2013).

Moreover, Franco et al. (2013) point out that the economy of the western border of the Pantanal has always been focused on cattle ranching and it does not make sense to grant access to small-scale fishers. They claim that local families appeared in this region only after 1974, when a great flood covered part of the region leading some ranch workers to move to the riverside and switch their livelihoods to fishing. Finally, they claim that riverine communities living in the Western Border of the Pantanal ('ribeirinhos') have neither historical links with the region nor customary systems of management of natural resources in ways that would protect local biodiversity; on the contrary, they are over-exploring local fish populations (Franco et al. 2013).

During this study, local conservationists shared similar ideas. For instance, they argued that this region should be focused on a strictly environmental agenda (expressed as): 'this area is the home of jaguars, should be no people there' (Informant 20; scientist), 'these people are rural poor, and should seek better lives in the city' (Informant 25; Private Protected Area manager), 'the re-location of the 'settlement 1' to far away from the Protected Areas will make the life of everyone in the community better' (Informant 26; Private Protected Area manager).

Local people and livelihoods

In the region, there are ~ 600 people living in 70 families, clustered in three main settlements. Settlement 1, the main focus of the investigation, has a population of ~97 people living in three extended families and 23 nuclear families.

Contrary to what environmentalists has been arguing, fishing has always been part of the local people's livelihoods, with records of local dwellers selling salted fish in Corumbá city in the early nineteenth century (Silva 1986). Despite the severe restrictions on fishing in the Pantanal (Chiaravalloti 2017a), the data collected showed that ~70% of local dwellers have fishing as their main livelihood and the remaining 30% rely on other sources such as short-term jobs and pensions (for retired fishers). Moreover, it was found that fishers constantly switch between gathering bait for tourist boats and fishing large fish to sell in the city, depending on the demand. Both activities can be divided into four main categories—bait gatherer, bait gatherer middleman, fisher, and fisher owning a boat. Men and women gather bait yet only men fish. The average wage varies accordantly to the activities (Table 1).

Origins of the extended families in the western border of the Pantanal

During the interviews, local people shared that extended families occupying the different sites throughout the floodplain mostly comprise couples with their aunts, uncles, and cousins living clustered together yet in separate small houses. To live within the extended family, people have to have some kind of kinship.

Outsiders can become part of an extended family by marriage or adoption. This is probably how the groups living in the western border of the Pantanal were originally constituted. From ethnographic and archaeological studies, it is known that the Guató, Boróro, Paiaguá, and Guaikuru Indigenous groups used to live in the western border of the Pantanal (Oliveira 2003; Ribeiro 2005). First, the Spanish in the sixteenth century and then the Portuguese in the early eighteenth century came in contact with them during the European colonisation process in South America (Costa 1999). However, in contrast with other local groups, the Guató population did not collapse following contact. Their spatial organisation was not centred on villages. Rather, extended families lived in isolated homesteads on manmade mounds throughout the river floodplains and fringing

Table 1 All types of fishing jobs and associated earnings during the high and low fishing season (data based on interviews)

	Entry	[Earnings] - [Investment] = Total USD monthly	
Type of fishing	barrier	Low season	High season
Bait gatherer	Low	86	292
Bait gatherer middleman	Middle	106	862
Fisherman	Low	90	297
Fisherman owning a boat	High	153	1323

the hills (Amolar Mountains). Perhaps, as a result, they were less severely affected by European diseases than other local Amerindian groups (Ribeiro 2005). Secondly, due to this dispersed pattern of settlement, there very few outright conflicts with Europeans. As a consequence, the Guatós were the main Indigenous group remaining in this region at the end of eighteenth century (Oliveira 2007).

It is likely that Guató extended families started to accept ex-slaves, foreigners, and other outsiders to join them through marriage. This can be verified looking at personal histories of the elderly. For instance, Informant 44 (60 years old) pointed out that his mother was Guató and his father was from Paraguay. He claims to have been born in the western border of the Pantanal and always lived with his family on natural or man-made mounds. His wife, Informant 43, (92 years old), stated that her mother was an ex-slave who joined her father's family. Informant 43 claims to have been born in the region. The continuity can also be seen by comparing the (Extended Family 1) EF1's historical living sites and Guató archaeological living sites recorded by Oliveira (2007), with some being occupied successfully by the two groups (Figure 2). They call it 'aterro de bugre' (referring to Indigenous [bugre] mound [atterro]). These sites are very similar to Amazonian Dark Earths (ADE) or 'Terra Preta' (Pinedo-Vasquez et al. 2011), although there is almost no

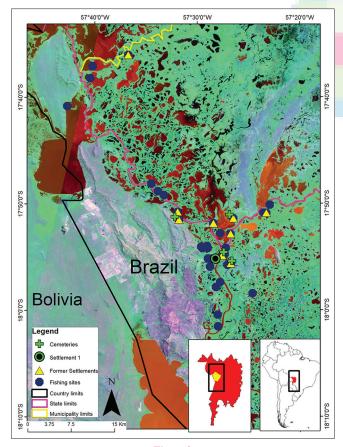


Figure 2
Settlement 1's fishing sites, former settlements, and cemeteries. The map emphasises their mobile behaviour accessing different states, municipalities, and likely part of a lake within Bolivia boundaries

information about these anthropogenic substrates in the western border of the Pantanal.

Today, a similar pattern of distribution and kinship is seen across the Settlements. For instance, in Settlement 1, even though all three extended families live on the same island, there is a very clear physical separation among them. EF1 live on the southern side of the area and all EF1 nuclear families live side by side; they do not mix with Extended Family 2 who live on the central part of the 'island' or Extended Family 3 who live on the northern side of the island.

Albeit having Indigenous roots, during the interviews it was clear that fishers see themselves differently from any other group, calling themselves 'riberinhos', which are those who fish and live by the river. As one of the informants put it 'there are different groups, but it is the same tradition'. For instance, a few years ago when local researchers tried to introduce wild rice to grow close to all human settlements as an alternative livelihood, they declined the offer. People claimed that wild rice was 'an Indigenous food, and they were no Indians', as had been suggested by one of the researchers involved in the project. They also consider themselves differently from 'pantaneiros' [people of the swamp], who, according to them, work and live in farms. As a young fisherman pointed out 'Pantaneiros follow order, wake up early in the morning go after the cows; we [riberinhos] can wake up whenever we want; we are free'. Finally, they consider themselves very different from people living in the cities, pointing out that the main difference is the trust they have in one another. This is clearly linked with their customary practices.

Customary management in the Pantanal fishery

Due to the yearly changes in the flood pulse timing, duration, and discharge, the exact period for which a water body will have fish or bait (economically viable) and whether or not it remains accessible is unpredictable. For instance, a water body that was economically viable on 1st of April in a given year may be viable for any period from one month earlier or later in the following year. Moreover, floating vegetation continually moves due to wind direction and water discharge, constantly changing accessibility of water bodies. Therefore, the knowledge fishers have gained about water bodies' accessibility and economic viability from previous years, plays only a minor role in assisting fishing behaviour in the following year; hence, they have to use a trial and error system.

To optimise the search for the best spot each time, people continually share information about good fishing spots with other fishermen in the community. They tend to be honest with everyone in their own settlement, establishing a sense of reciprocity. The information about good fishing or gathering spots is shared during the several iced tea drinking sessions ('tereré') held each day. The honesty and reciprocity shown by people from Settlement 1 towards co-residents do not extend to people from outside their community. They neither shared information with people from other settlements, nor allowed them to use water bodies close to Settlement 1. It has been

suggested that this system works as a Limited Open Access (Chiaravalloti and Dyble 2018) (Figure 2).

Tenure and impact of conservation

The combination of a strict environmental agenda and a lack of formal recognition have had severe consequences for the riberinhos communities. Although, currently there are around 600 people living in three main settlements (Figure 2), extended families with 15–20 people used to live on man-made or natural mounds all over the floodplain moving their settlements according to changes in the landscape. As one informant said: 'when I was young, we used to keep moving trying to find a better place to live, we eventually moved three or four times in one year' (Informant 15, male, 65 years, fisherman). Some of the old settlements were located on private farms. Some people still hold formal letters from farmers authorising them to use and live inside the farm boundaries in return for an obligation to report any invasion or cattle robbery in their areas (Informant 38, male, 55 years, fisherman). Using EF1 as a case study, at least 10 different living sites were counted as having been used in the last 30 years, for which local people were able to give the exact date of occupation and a further six with no defined date of use (Figure 3).

However, people record that the last two movements were due to the creation of the Protected Areas and were involuntary. The first displacement was in the 1980s, soon after the first Protected Area (a National Park) was set aside, as explained by two informants from EF1, 'when they created the National Park we were living in Porto Brazil, they gave us three days to leave the place, we put all our belongings in two canoes and sailed for two days' (Informant 4, female, 46 years, bait gatherer), and 'when we were living in the region of the National Park, they came and tied Informant 13's hands and feet and beat him until he fainted' (Informant 6, male, 57 years, bait gatherer). The second alleged displacement occurred in the 1990s, when three further Protected Areas were created (Private Reserves). There are still remnants of their former houses in the area where some families used to live.

The spatial organisation of Settlement 1 is a direct consequence of these displacements. Currently, in Settlement 1 there are three extended families living together. However, it is likely that there were more families in the region when the Protected Areas were created. The area has seen a great exodus from rural areas in the last few decades, and local people remember as many as 10 other extended families living around settlement 1.

According to local people, Settlement 1's current location was used by one of the extended families in the region from roughly 1960 to the 1980s and then abandoned, because the matriarch of the family died from a snakebite. After the last displacement in the 1990s, three different extended families were clustered in this region of 20.5 ha surrounded by rivers locally called 'the island'. This spatial pattern of occupation (more than one extended family living together) is not registered in any other Settlement in the western border of the Pantanal.

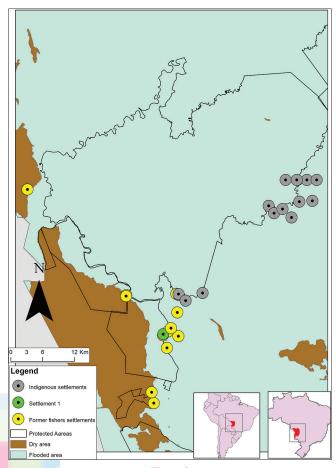


Figure 3 Settlement 1 and the former Indigenous and fishers' settlements in the region recorded through participatory mapping tools

THE CASE STUDY WITHIN THE CONTEXT OF **INDIGENOUS IDENTITY**

The observations presented in this paper lead to important discussions regarding the 'traditional people' label or, broader, 'Indigenous peoples' classification. The case in the western border of the Pantanal emphasises how powerful groups have used a label intended to include different groups to rather oppress powerless people. The Brazilian National Policy for the Sustainable Development of Traditional Peoples and Communities ('Political Nacional de Desenvolvimento Sustentável de Povos e Comunidades Tradicionais'; PNDSPCT) was an important instrument to guarantee that conservation interventions respect local groups who depend on natural resources for their livelihoods and wellbeing (Calegare et al. 2014). The policy is focused on a flexible and fluid concept of 'traditional communities and peoples', mainly considering local people's own understanding about themselves (Cunha and Almeida 2000). However, in the Pantanal, the decision of Indigenous or traditional rights was a political one, regardless of local people's claims (Lawson 2014). Environmental groups used the fact that local fishers living in the western border of the Pantanal do not share the same features of traditional communities, hitherto

described in the Pantanal (Silva and Silva 1995; Neuburger and Silva 2011), to justify strict conservation measures that have jeopardised local livelihoods and have led to economic and physical displacements.

The accusation that these people moved to the area after 1974 and are destroying the environment (Franco et al. 2013) is, however, demonstrably unfounded and untrue. Rather, the interview-based evidence shows a long history of occupation in the area, probably dating back at least 150 years. Moreover, it has been shown that the unpredictability of this system alongside local people's cultural values, areas of use, and low-technology guarantee a sustainable use of fish in the region (Chiaravalloti et al. 2017; Chiaravalloti 2017b). The Pantanal have shown no signs of overfishing (Mateus et al. 2011) and the fish assemblage of the western border of the Pantanal has an 'excellent degree of biological integrity' (Polaz 2013). Finally, local fishers see themselves as a culturally differentiated group.

In fact, in Brazil, there are several communities that are not labelled as 'Traditional Peoples and Communities' but still undertake sustainable use of natural resources managed through customary governance and see themselves as culturally differentiated (Calegare et al. 2014)³. Like the fishers from the western border of the Pantanal, Castro et al. (2006) pointed out that in the Atlantic Forest, groups settled more than 200 years ago are considered traditional communities, but groups from 100–50 years ago are seen as non-traditional settlers or squatters even though the evidence shows the presence of customary use, identity, and sustainability in both groups. The problem is also seen in other countries. For instance, Li (2000) presents that in Indonesia, outsiders' stereotypes of Indigenous identity have endorsed displacements and social division.

The concept of 'traditional community' and, more generally, 'Indigenous identity' is, many times, intentionally used with the assumption that in order to sustain this label, local people have to keep their social structure, customary use, property regimes, and tradition unchanged (Creado et al. 2008). It disregards the fact that communities are a continually evolving product of ongoing social, economic, and political negotiation, comprising a group of different actors or stakeholders with different preferences for resource use. To consider a community as a homogeneous unit is to ignore the ways in which differences between people within the community may affect resource management, local politics, and strategic interactions, as well as the possibility of layered alliances that can span multiple levels of interactions (Agrawal and Gibson 1999; Haller et al. 2013). The case study in the Pantanal showed that fishers adapt and readapt according to internal and external changes. However, powerful groups used their dissimilarities with other riverine communities to argue that they were no traditional people, justifying forced displacements. The consequences go beyond not including groups in national policies. As Hill (2014) argues, the search for identity may create a type of Indigenous fundamentalism, which can be deployed by conservative groups to exclude and deny access to powerless members within their groups. Examples show that groups may change their behaviour, culture, and notions of history in order to fit the received global wisdom of what constitutes '*Indianness*' (Harris et al. 2007).

Many communities living in rural areas lack governmental support; most of them have no access to public health, education, and sanitation (Cunha and Almeida 2000). With current Brazilian legislation, being labelled as a 'Traditional Community' can bring benefits ranging from economic incentives to tenure rights; it is a way to fight the prejudices against rural communities and their natural-resource based livelihoods (Little 2002). This explains why Strictly Protected Area managers in the Pantanal and in other parts of the country (Castro et al. 2006) and outside it (Weaver 2001; Lawson 2014) have fought to exclude local people from being defined as part of an Indigenous or 'Traditional Peoples and Communities' group, instead calling them 'rural poor' (Franco et al. 2013). As a 'traditional group', people are legally allowed to use areas for their sustainable livelihoods that are inside Strictly Protected Areas, but as 'rural poor', in principal, people do not have territory of use or sustainable livelihoods; therefore, managers are allowed to deny any kind of access within the boundaries or even buffer zones of Strictly Protected Areas (Franco et al. 2013).

In the Pantanal, the invisibility of 'ribeirinhos' (the local fishing communities) is accentuated by a global challenge to recognise mobile societies as being legitimate members of local groups (Chatty 2003; Dyer 2013). One of the main reasons is that their movements are often not restricted within formal borders of individual municipalities, states or countries, and the governments of their administrative units tend to exclude them from formal group categories (Randall 2015). For instance, the area used by fishers from Settlement 1 spans two states, three municipalities, and likely areas that are within the boundaries of Bolivia. Such mobility is a common case rather than an exception, since many inland fishers have livelihoods based on fishing long-migratory species (Kolding and Van Zwieten 2014). For instance, on the Mekong River, the world largest inland fishery, 40-70% of fish caught migrate long distances along the Mekong mainstream (Dugan et al. 2010). In the Pantanal, long-migratory fish represent at least 70% of the total catch (Catella et al. 2014). In the Amazon, the proportion varies across the different ecosystems, but normally represents no less than 50% of the fish traded (Cerdeira et al. 2000). Many mobile pastoralists and huntergathers face similar challenges of recognition (Randall 2015). In fact, PNDSPCT in Brazil acknowledge that traditional communities may have temporary territories which does not undermine their traditional label (article 3, second paragraph). However, on the ground, mobile livelihoods are not registered in the national, regional or international consciousness (Randall 2015). Therefore, the problem remains even when governments, scientists or policies locate and recognise these communities. Sometimes, the lack of information may be strategically beneficial for some stakeholders (Upton 2010). Simply put, negative consequences for an invisible group are equally invisible.

CONCLUSION

People and nature are increasingly understood as two agents of the same system (Mace 2014). Hence, community-based conservation tools ought to capture important social aspects of human life, such as social relationships, autonomy, adaptiveness, customary arrangements, and wellbeing (Woodhouse et al. 2015). The rhetoric around embedding local development as a goal in conservation publicity and discourse has become widespread (Hackel 1999; Berkes 2004, 2007). CBC has been used to endorse and label as 'community-based' a whole range of conservation projects differing only very slightly from a strictly environmental approach (Dressler et al. 2010). Dressler et al. (2010), for instance, point out that in the Philippines, CBC arose in response to a colonial conservation policy and has led to a process of criminalisation of former peasants and replacement of earlier land use. They document the failures of CBC with cases in Madagascar, South Africa, Nepal, Nicaragua, and North America. Homewood et al. (2012, p. 247) illustrate similar impacts of CBC in Tanzania and Kenya, where 'the 'win-win' approaches portrayed by conservation enterprises' did not produce the benefits they claimed. In the case study presented, environmentalists acknowledged the fact that 'traditional communities' should have their territories assured yet argued that the label should be limited to a few fitting within the environmentalists' own concept of 'traditional peoples'. For those living in the western border of the Pantanal, local environmentalists referred to the local people as 'rural poor', which, according to this view, would justify past displacements, and current severe restrictions on fishers for using areas within the boundaries or buffer zones of strictly protected areas (Franco et al. 2013).

The implementation of 'traditional community' policy in Brazil represented a milestone in terms of local people's rights (Allison and Ellis 2001; Lechner et al. 2014). The complex realities that dictate the lives of local people are, at least in key dimensions, represented in the policy (Cunha and Almeida 2000; Shiraishi-Neto 2007; Silva 2007). However, the case study presented here shows a group of protected area managers using the tool for purposes completely opposite to those for which it was created. Therefore, although the Brazilian National Policy for the Sustainable Development of Traditional Peoples and Communities is key in recognising local people and livelihoods, especially mobile groups, in practice a careful analysis needs to be undertaken in order for it to not become a political tool to oppress local people living in rural areas, as in the case of the Pantanal.

Brazilian community-based conservation policies, such as Sustainable Use Protected Areas or the Traditional People label are an inspiring example for other countries in the global south facing similar challenges of recognising local groups. However, safeguard measures (e.g., tenure rights, presumption of 'traditionality') must be incorporated in order to avoid such policies from becoming a tool to reinforce the already oppressive restrictions placed on local communities close to, or part of, conservation initiatives.

ACKNOWLEDGEMENTS

This study was partly funded by Science Without Borders CNPq/Capes, WWF Russell E. Train Fellowship, Rolex Award for Enterprise, and Handsel Scholarship for Wildlife Conservation. The author is grateful to Katherine Homewood and Mark Dyble for the critical review and discussions, and to the local people for their hospitality.

NOTES

- Extactive Reserve of Alto Juruá in state of Acre, Amazon forest.
- https://www.iucn.org/theme/protected-areas/about/protectedareas-categories/category-vi-protected-area-sustainable-usenatural-resources
- I refer to those communities who indeed fit the requirements to be classified as a traditional community according to the Brazilian legislation yet are not label as such. The number of traditional communities facing this situation in the country is unclear, since there is no official data; it may range from 8 to 25 million people (Silva 2007).

REFERENCES

- Agrawal, A. and C.C. Gibson. 1999. Enchantment and disenchantment: the role of community in natural resource conservation. World Development 27(4): 629-649.
- Allegretti, M. 2008. A construção social de políticas públicas: Chico Mendes e o movimento dos seringueiros. Desenvolvimento e Meio Ambiente 18: 39-59.
- Allison, E.H. and F. Ellis. 2001. The livelihoods approach and management of small scale fisheries. Marine Policy 25: 377-88.
- Barreto Filho, H. 2009. Traditional populations: introduction to the critique of the political ecology of a notion. In: Amazon peasant societies in a changing environment: political ecology, invisibility and modernity in the rainforest (eds. Harris, M., C. Adams, R. Murrieta, and W.A. Neves). 1st edition. Pp. 95-129. London: Springer.
- Berkes, F. 2004. Rethinking community-based conservation. Conservation Biology 18(3): 621-630.
- Berkes, F. 2007. Community-based conservation in a globalized world. Proceedings of the National Academy of Sciences 104(39): 15188–15193.
- Bernard, H.R. 2006. Research methods in anthropology. 4th edition. Oxford: Altamira.
- Bertassoni, A., N.L. Xavier-Filho, F.A. Rabelo, S.P.S. Leal, G.E.O. Porfírio, V.F. Moreira, and A.P.C. Rabelo. 2012. Paraguay river environmental monitoring by Rede de Proteção e Conservação da Serra do Amolar, Pantanal, Brazil. Pan-American Journal of Aquatic Sciences 7(2): 77–84.
- Calegare, M.G.A., M.I.G. Higuchi, and A.C. dos S. Bruno. 2014. Povos e comunidades tradicionais: das áreas protegidas à visibilidade política de grupos sociais portadores de identidade étnica e coletiva. Ambiente & Sociedade 17(3): 115-134.
- Campbell, L.M. and A. Vainio-Mattila. 2003. Participatory development and community-based conservation: Opportunities missed for lessons learned? Human Ecology 31(3): 417-438.
- Castro, F. de, A.D. Siqueira, E.S. Brondízio, and L.C. Ferreira. 2006. Use and misuse of the concepts of tradition and property rights in the conservation of natural resources in the Atlantic Forest (Brazil). Ambiente & *Sociedade* 9(1): 23–41.
- Catella, A.C., S.P. Albuquerque, F.L. de R. Campos, and D.C. dos Santos. 2014. Sistema de Controle da Pesca de Mato Grosso do Sul SCPESCA/ MS - 20 - 2013. Boletim de Pesquisa e Desenvolvimento 127: 57.

- Cerdeira, R.G.P., M.L. Ruffino, and V.J. Isaac. 2000. Fish catches among riverside communities around Lago Grande de Monte Alegre, Lower Amazon, Brazil. Fisheries Management and Ecology 7(4): 355–374.
- Chatty, D. 2003. Mobile peoples and conservation: an introduction. *Nomadic Peoples* 7(1): 5–16.
- Chiaravalloti, R.M. 2016. Is the Pantanal a pristine place? Conflicts related to the conservation of the Pantanal. Ambiente & Sociedade 19(2): 305–110.
- Chiaravalloti, R.M. 2017a. Overfishing or over reacting? Management of fisheries in the Pantanal wetland, Brazil. Conservation and Society 15(1): 111–122.
- Chiaravalloti, R.M. 2017b. Systematic conservation planning in floodplain fisheries: to what extent are fishers' needs captured in prioritisation models? Fisheries Management and Ecology 24(5): 392–402.
- Chiaravalloti, R.M., K. Homewood, and K. Erikson. 2017. Sustainability and land tenure: who owns the floodplain in the Pantanal, Brazil? *Land Use Policy* 64: 511–24.
- Chiaravalloti, R.M. and M. Dyble. 2018. Limited open access in socio-ecological systems: how do communities deal with environmental unpredictability? Conservation Letters (October): 1–7.
- Costa, M. de F. 1999. A história de um país inexistente. 1st edition. Estação Liberdade.
- Couto, E., J. Dietz, R. Mumford, and G. Wetterberg. 1975. Sugestões para criação do Parque Nacional do Pantanal. Viçosa: IBDF.
- Creado, E.S.J., A.B.V. Mendes, L.D.C. Ferreira, and S.V. De Campos. 2008. Entre 'tradicionais' e 'modernos': negociações de direitos em duas unidades de conservação da Amazônia Brasileira. *Ambiente & Sociedade* 11(2): 255–271.
- Cunha, M.C. da and M.W.B. De Almeida. 2000. Indigenous people, traditional people, and conservation in the Amazon. *Daedalus* 129(2): 315–338.
- Dressler, W., B. Buscher, M. Schoon, D. Brockington, T. Hayes, C.A. KullL, J. MCcarthy, and K. Shrestha. 2010. From hope to crisis and back again? A critical history of the global CBNRM narrative. *Environmental Conservation* 37(01): 5–15.
- Dugan, P.J., C. Barlow, A.A. Agostinho, E. Baran, G.F. Cada, D. Chen, I.G. Cowx, J.W. Ferguson, T. Jutagate, M. Mallen-Cooper, G. Marmulla, J. Nestler, M. Petrere, R.L. Welcomme, and K.O. Winemiller. 2010. Fish migration, dams, and loss of ecosystem services in the Mekong basin. AMBIO 39(4): 344–348.
- Dyer, C. 2013. Does mobility have to mean being hard to reach? Mobile pastoralists and education's 'terms of inclusion'. *Compare* 43(5): 601–621.
- ECOA. 2013. Ações para o turismo de base comunitária na contenção da degradação do Pantanal. Campo Grande: ECOA.
- Franco, J.L. de A., J.A. Drummon d, C. Gentile, and A.I. de Azevedo. 2013. *Biodiversidade e ocupação humana do Pantanal mato-grossense: conflitos e oportunidades.* 1st edition. Rio de Janeiro: Garamond.
- Hackel, J.D. 1999. Community conservation and the future of Africa's wildlife. Conservation Biology 13(4): 726–734.
- Haller, T., G. Fokou, G. Mbeyale, and P. Meroka. 2013. How fit turns into misfit and back: Institutional transformations of pastoral commons in African floodplains. *Ecology and Society* 18(1): 34.
- Harris, M., M. Nakata, and B. Carlson. 2007. *The politics of identity: emerging indigeneity*. Sydney: UTS ePress.
- Hill, B. 2014. Searching for certainty in purity: indigenous fundamentalism. Nationalism and Ethnic Politics 20(1): 10–25.
- Homewood, K.M., P. Trench, and D. Brockington. 2012. Pastoralist livelihoods and wildlife revenues in East Africa: a case for coexistence? *Pastoralism: Research, Policy and Practice* 2(1): 19.
- IBAMA. 2003. Plano de Manejo do Parque Nacional do Pantanal Matogrossense. Brasilia: Instituto Brasiliero do Meio Ambiente e dos Recursos Naturais Renováveis.
- IBAMA. 2012. Monitoramento dos Biomas Brasilieros: Bioma Pantanal. Brasilia: Instituto Brasiliero do Meio Ambiente e dos Recursos Naturais Renováveis.

- Junk, W.J., C.N. Da Cunha, K.M. Wantzen, P. Petermann, C. Strüssmann, M.I. Marques, and J. Adis. 2006. Biodiversity and its conservation in the Pantanal of Mato Grosso, Brazil. *Aquatic Sciences* 68(3): 278–309.
- Junk, W.J., C.J. da Silva, C.N. Cunha, and K.M. Wantzen. 2011. The Pantanal: ecology, biodiversity and sustainable management of a large neotropical seasonal wetland. 1 st edition. Sofia-Moscow: Pensoft.
- Keddy, P.A., L.H. Fraser, A.I. Solomeshch, W.J. Junk, D.R. Campbell, M.T.K. Arroyo, and C.J.R. Alho. 2009. Wet and wonderful: the world's largest wetlands are conservation priorities. *BioScience* 59(1): 39–51.
- Kolding, J. and P.A.M. Van Zwieten. 2014. Sustainable fishing of inland waters. *Journal of Limnology* 73(1): 132–148.
- Laurance, W.F., A.K.M. Albernaz, and C. da Costa. 2002. O desmatamento está se acelerando na Amazônia brasileira? *Biota Neotropica* 2(1): 1–9.
- Lawson, S. 2014. The politics of indigenous identity: an introductory commentary. Nationalism and Ethnic Politics 20(1): 1-9.
- Lechner, A.M., C.M. Raymond, V.M. Adams, M. Polyakov, A. Gordon, J.R. Rhodes, M. Mills, A. Stein, C.D. Ives, and E.C. Lefroy. 2014. Characterizing spatial uncertainty when integrating social data in conservation planning. *Conservation Biology* 28(6): 1497–1511.
- Li, T.M. 2000. Articulating indigenous identity in indonesia: resource politics and the tribal slot. Comparative Studies in Society and History 42(1): 149–179
- Lima, D. de M. and N. Peralta. 2017. Developing sustainability in the Brazilian Amazon: twenty years of history in the Mamirauá and Amanã reserves. *Journal of Latin American Studies* 49(4): 1–29.
- Little, P.E. 2002. Territórios Sociais e Povos Tradicionais no Brasil. Por uma antropologia da territorialidade. Anuário Antropológico 322: 251–290.
- Lourival, R., H. McCallum, G. Grigg, C. Arcangelo, R. Machado, and H. Possingham. 2009. A systematic evaluation of the conservation plans for the pantanal wetland in Brazil. *Wetlands* 29(4): 1189–1201.
- Mateus, L., M. Vaz, and A. Catella. 2011. Fishery and fishing resources in the Pantanal. In: The Pantanal: ecology and sustainable management of a large neotropical seasonal wetland (eds. Junk, W.J., C.J. Da Silva, C.N. Cunha, and K.M. Wantzen) 1st edition. Pp. 621–647. Sofia-Moscow: Pensoft.
- Mittermeier, R.A., G.A.B. Da Fonseca, A.B. Rylands, and K. Brandon. 2005.

 A brief history of biodiversity conservation in Brazil. *Conservation Biology* 19(3): 601–607.
- Neuburger, M. and C.J. da Silva. 2011. Riberinhos between ecological adaptation and modernisation. *In: The Pantanal: ecology and sustainable management of a large neotropical seasonal wetland* (eds. Junk, W.J., C.J. Da Silva, C.N. Cunha, and K.M. Wantzen) 1st edition. Pp. 674–694. Sofia-Moscow: Pensoft.
- Neumann, R.P. 2004. Nature-State-Territory: towards a critical theorization of conservation enclosures. *In: Liberation ecologies: environment, development, social movements* (eds. Peet R. and M. Watts). Pp. 195–217. Oxon: Routledge.
- Oliveira, J.E. de. 2007. Os primeiros passos em direção a uma arqueologia pantaneira: de Max Schmidt e Branka Susnik a outras interpretações sobre os povos indígenas nas terras baixas do Pantanal. *Revista de Arqueologia* 20: 83–115.
- Oliveira, J.E. De. 2003. Da pré-história à história indígena: (Re) pensando a arqueologia e os povos canoeiros do Pantanal. *Revista de Arqueologia* 16: 71–86
- Padovani, C.R. 2010. Dinâmica Espaço-Temporal das Inundações do Pantanal Carlos. Ph.D. thesis. Universidade de São Paulo, São Paulo, Brazil.
- Padua, C.V. and R.M. Chiaravalloti. 2012. Pesquisa e Conhecimento na Gestão de Unidades de Conservação. *In: Gestão de Unidades de Conservação: compartilhando uma experiência de capacitação* (ed. Cases, M.O.). Pp. 139–155. Brasilia: WWF-Brasil/IPE-Instituto de Pesquisas Ecológicas.
- Pinedo-Vasquez, M., M.L. Ruffino, C. Padoch, and E.S. Brondízio. 2011. The Amazon Várzea: The past decade and the decade ahead. Media. 1st edition. London: Springer.
- Polaz, C.N.M. 2013. Caracterização da Ictiofauna e Aplicação do Índice de

- Integridade Biótica no Parque Nacional do Pantanal Mato-grossense, Poconé, MT. Universidade de São Paulo, São Paulo, Brazil.
- Randall, S. 2015. Where have all the nomads gone? Fifty years of statistical and demographic invisibilities of African mobile pastoralists. Pastoralism 5(1): 1-22.
- Ribeiro, M. da S. 2005. Um Ilha na História de um povo Canoeiro: O Processo de destorritorialização e reterritorialização dos Guató na região do Pantanal. Universidade Federal do Mato Grosso do Sul, Campo Grande,
- Schaller, G.B. and J.M.C. Vasconcelos. 1978. Jaguar predation on capybara. Z. Saeugetierk 43: 296-301.
- Shiraishi-Neto, J. 2007. Direito dos povos e das comunidades tradicionais no Brasil. 1 st edition. Manaus: PPGSCA-UFAM/Fundação Ford.
- Silva, C.J. and J. F. Silva. 1995. No ritmo das águas do Pantanal. 1st edition. São Paulo: NUPAUB/USP.
- Silva, M. 2005. The Brazilian protected areas program. Conservation Biology 19(3): 608-611.
- Silva, M.O. 2007. Saindo da invisibilidade a política nacional de povos e comunidades tradicionais. Inclusao Social 2(2): 7-9.
- Silva, M.V. 1986. Mitos e Verdades sobre a Pesca no Pantanal Sul-Mato-Grossense. 1st edition. Campo Grande: FIPLAN.

- Soulé, M. 2013. The 'new conservation'. Conservation Biology 27(5): 895-897.
- Tocantins, N. 2011. Do Mar de los Xarayes ao complexo de áreas protegidas do Pantanal Mato-grossense. Revista do Instituto Histórico e Geográfico de Mato Grosso 1(68-69): 17-27.
- Tomas, W.M., N. Ishii, C. Strüssmann, A.P. Nunes, S.M. Salis, Z. Campos, V.L. Ferreira, O. Bordignon, A.T.M. Barros, and D.R.C. Padilha. 2010. Borda oeste do pantanal e Maciço do Urucum em Corumbá, MS: área prioritária para conservação da biodiversidade. In: 50 Simpósio Sobre Recursos Naturais e Socioeconômicos do Pantanal. Corumbá: Embrapa Pantanal. October 9-12, 2010.
- UNEP-WCMC and IUCN. 2016. Protected planet report 2016. Protected Planet Report. Cambridge, UK.
- Upton, C. 2010. Nomadism, identity and the politics of conservation. Central Asian Survey 29(3): 305-319.
- Weaver, H.N. 2001. Indigenous identity: what is it and who really has it? The American Indian Quarterly 25(2): 240-255.
- Woodhouse, E., K.M. Homewood, E. Beauchamp, T. Clements, J.T. McCabe, D. Wilkie, and E.J. Milner-Gulland. 2015. Guiding principles for evaluating the impacts of conservation interventions on human well-being. Philosophical Transactions of the Royal Society B: Biological Sciences 370(1681): 20150103.

Received: April 2018; Accepted: December 2018

