

# Fishermen and Territorial Trends in the Brazilian Fisheries Policies\*

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## Abstract

The fishing activity has been known for centuries by man and is configured as an important source of livelihood and income for many families of Brazilian fishermen. This article tries to do a brief contextualization of fishing in Brazil, as well as discuss the notion of territoriality of sector policies. The trend shown for the future is the need for a planning/mapping of operation areas of productive agents in the country, so that fish stocks can be managed more appropriately. One of the proposals that comes with acceptance and is already being applied in some municipalities is fishing agreements, using co-management mechanisms for planning and use of fisheries resources.

## Keywords

Fishing and Fishermen, Colony of Fishermen, Brazil, Agreements

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## 1. Introduction

The fishing activity has always been, and remains, an important source of food for human consumption. However, recent researches have been corroborating with the increase in fishery exploitation worldwide [1], a process driven by the indiscriminate extraction of natural resources, both forest in the continental event, as well as the fishing in fluvial and maritime environments. Reflecting the need to manage and use natural resources, human groups are added in organizations capable of mobilizing population groups towards their goals. In addition to the mobilization of institutions, new geotechnologies—computing technologies that assist in spatial objects and phenomena that occur on Earth's surface, have been highlighted as an aid in the management and planning of natural resources, among them the fishing.

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Thereby, over the years new techniques have emerged and “modernizing” existing ones, also optimizing the extraction of resources exploited by humans. At this point, people began to use new equipment, adapting them to their ways of life and increasing the productivity of what was already extracted, threatening the popular natural resources carrying capacity, whether fishing, timber, etc. The occurrence of these cases has inevitable conflict, since, for increased production from mining activities, in most cases where there are no appropriate technology, the actuation space must also be expanded, creating new territorialities and the appearance of new forms of empowerment, not existing before.

As an alternative to minimizing conflicts Brazilian state seeks mechanisms to improve the management of the activity. Thus, the territorial policies of fishing and aquaculture are proposals submitted by the government to try to curb the predatory use of fisheries resources. In the discourse of the Brazilian government some ideas do not meet the users, others appear also to mitigate conflicts, improving the ways to handle/manage these resources in “mutual agreement” in order to consider the views and lifestyle of the main users of fishery resources, the fishermen.

Public policies designed to minimize conflicts and propose sustainable management solutions are available to fishermen, industry experts and technicians to check their viability. In this context, based on the main documents made available by the Brazilian government that deal with land use planning and fisheries management [2]-[5], it is important to examine the practicability of the concept of territory by the Brazilian state at present time and its application in the activities of fishermen and actions of associations and fishing colonies.

Thus, this essay will seek to make a brief contextualization of fishing in Brazil, as well as discuss the notion of territoriality of fishermen colonies in the country. The trend shown at this point is a significant decrease of resources in every way (forestry and fisheries), caused mainly by the predatory use and the growing demand, which makes the use of resources occur in areas where stand power relations and generation of “constructive territoriality” (agreements) and, at other times, destructive (conflicts).

## 2. The Fishing Activity in Brazil

Because of technological progress occurred in recent years, free access to natural resources and the ways of management are being changed because, with its constant use begin to emerge groups seeking to hold power over certain natural resource. With the emergence of private property and state normalizing institutions, control and ownership of natural resources became increasingly limited, reaching the need to impose barriers, boundaries—physical and subjective, to territorialize [6] to maintain control over the space and thus prevent the finiteness of certain specimen. The environment right now is territorialized [7], and natural assets, which were previously collective or used in community, become increasingly individual goods, and later, belong to companies, or countries, which reflects in the preparation of international agreements that have territorialized the globe in action zones of nations, for example.

With this configuration possession and/or power over the territory and the goods contained therein, countries then began to create ways to prevent and restrict the indiscriminate use of natural resources they considered national assets, as well as deny free access to its resources, designating other audit bodies and monitoring thereof, giving the infractors taxes and other penalties and oppression that intimidate their practice [8]. Since then, there is the need to create state institutions of control, supervision and monitoring the use of these natural resources.

In Brazil this also happened since this paper is incorporated by several Brazilian government institutions, with operations nationwide. However, civil society also organized to ensure access to resources. In this way, on the early twentieth century in Brazil, natural resources, specifically fisheries resources were viewed as a great natural deposit, with unlimited potential supply to cities [9] [10]. In this period the first movements for a regulation of using these resources by the nation-state arised. Therefore, the composition of government agencies, to coordinate the development of fishing activity, was marked in 1910 by the creation of the Fisheries Inspectorate, whose performance was limited to the survey of marine species, extinct in 1918.

The Fishing zones arose from a need for control and defense of the territory in the second half of the nineteenth century, but the foundation of the first fishing colonies took place from 1919, created from the research tour of the Brazilian coast cruiser “José Bonifácio”, commanded by War Marine Commander Frederico Villar [9] [11]. These new institutions were born from the need to protect the Brazilian coast, he met the fishermen, the best “defenders” because they were scattered along the coast and inland, and were asked to contribute to the supervision of the Brazilian coast carried out by the Brazilian Navy, being gathered in associations called colonies

[12].

During this period, the search cruiser José Bonifácio was only made possible by the creation of the first national institution that basically worked in the fishing sector, the Board of Fisheries and Sanitation of Brazilian Coast, created in 1923, and that was a body that was very important at the time especially in the organization and defense of artisanal fisheries. According to Moraes [13], Frederico Villar had as one of its goals the nationalization of fisheries in Brazil, because as the country had, and still has, a huge coastline, and the Navy at the time did not have enough staff for their protection, fishermen, proficient and knowledgeable inhabitants of the coast, so were the best people to assist in this work because of their daily lives is part of the mobilization for the coast and hard to reach places or outside the route of national commercial navigation. As fishermen work in the aquatic environment where supervision was previously required, and the way these individuals have empirical knowledge of navigation and live daily in its territory of work, the Navy realized that they were ideal for the defense of the Brazilian territory, given they would be defending as well, their work environment, their residence and their way of life, and would, in case of war, immediately be called to collaborate with the Navy [14] [15].

With the creation of fishing colonies there was a recognition of the importance of the fishing activity, the representation that the Colonies fishing began to have as a category of representation of fishermen, and recognition by society and the State of the importance of fishing activity for the provision of the domestic consumer market. Campos [11] and Maneschy [16] find that the first regulation of the Fishermen Colonies from Brazil, dated 1923, was aimed at the union of fishermen, promoting fishing schools and combating disorderly and illegal fishing—with a direction implicit protection of the Brazilian territory. As associates, were part of fishing colonies only Brazilian native and naturalized, as it is a strategic partnership for the Brazilian territory, just a matter of national security.

During the 1930s, with the new state institution, the so called Vargas Era, fishing colonies went through the changes both in its constitution, as the government agency responsible for the supervision and monitoring. In 1933 through Decree n° 23-134/33 was created the Hunting and Fishing Division whose main objective was to manage fisheries activities in Brazil. According to [12], this time the fishermen are no longer subject to the Ministry of Navy and became the responsibility of the Ministry of Agriculture, which prepared the first Fishing Code and puts fishermen in the Hunting and Fishing Division, aggregate to that ministry. This moment marks the beginning of a period characterized as a stage of “technological improvement of the sector”, and has already seen the direction of public regulation for the cumulative process of capital, with improvements in the training of hand labor. In this context, Fishing Credits Box was created, financed with government resources for services provided by federal warehouses (5% of actual sales), which was intended to meet the requirements of the business sector, as regards to the extension of project financing plants of fishing enterprises, storage installation and even for assembly of small industries.

In October 1942, through Decree-Law No. 4,890/42, the subordination of the fishermen was transferred again from the Ministry of Agriculture to the Ministry of the Navy, which, again, was the main reason the “strategic value” of fishermen for the Brazilian nation. Since once again the maritime spatial knowledge that fishermen had presented itself useful for the state service. It is important to emphasize that this was a time that was being triggered during World War II [12].

From the 1960s, the state intervened through the formulation of credit programs and assistance to artisanal fishermen, to address the interests of the industrial and financial capital that began more strongly to manifest its interest in fishing activities, as would expand the adoption of industrial inputs in fish production in Brazil [16] [17]. Later in 1961 it launched the Fisheries Development Board (CODEPE), a normative organ that sought to give a single direction to development policy for the fishery throughout the Brazilian territory. A year after the creation of Codepe comes the Superintendency of Fisheries Development (SUDEPE), an authority that centralized all political and economic functions of Fishing and Hunting Divisions.

According to Moraes [12] new changes reoccurred in the organization of fishermen from the creation of SUDEPE in an attempt to institutionalize the fishing sector as an autonomous entity of agriculture and supply area, with its own political lines, set to lay the foundation of consolidation of the fledgling fishing industry, “(...) is sought then the implementation of a true fishing industrial complex in appropriate areas of Brazil” [14].

Also in 1960, the Decree Law 221/67, stated that “the whole aquatic environment and the organisms that inhabit it are public domain and therefore freely accessible to their exploitation by all authorized persons” [8], in addition to setting fishing equipment and subsidies for fuel used by fishermen. However, the performance of Sudepe occurred during the military regime, which limited its operations and reflected in the organization of

fishermen's movements in Brazil, where the colonies were, at that time, subordinated to state interests and can not speak out against this being, as other social movements, hard reprimanded for acts against the dictatorial regime.

As early as February 22, 1989, Law 7735 establishes the Brazilian Institute of Environment and Renewable Natural Resources—IBAMA, under the Ministry of Environment and receiving then, the extinct Sudepe, fisheries management and aquaculture. The fisheries administration has undergone a significant change, as sustainability has gained considerable weight in managing the use of fisheries resources. This new phase, providing another view to the planning of fishery resources, on the one hand deny the exploitation policy pursued in the previous period, on the other links to fishing activity almost exclusively to the environmental dimension. At that moment IBAMA became the body for the purpose of coordinating, planning and executing national environmental policy and the preservation, conservation and rational use, monitoring and control of renewable natural resources, and between these, fisheries resources [14].

In May 1998, with the new Presidency and ministries organizational restructuring, the competence-related support was transferred from production and the promotion of fishing activity to the Ministry of Agriculture, Livestock and Supply—MAPA, through the Department of Fisheries and Aquaculture (DPA), remaining in the IBAMA/MMA, the responsibilities related to the preservation policy, conservation and sustainable use of natural resources.

On 1 January 2003, the Government issued Provisional Measure 103, now Law 10,683, which established the Special Secretariat of Aquaculture and Fisheries—SEAP, linked to the Presidency. The SEAP/PR had the Ministry of status and powers to formulate development policy and development for aquaculture and fisheries in Brazil, remaining the shared management of the use of fisheries resources with the Ministry of Environment. In this sense, the SEAP was created to fill a need in the fishing sector with a view to foster and develop the activity as a whole, within the framework of a new policy management and planning of the sector, maintaining the commitment to environmental sustainability.

In June 2009, by Law No. 11,958, the President of the Republic created to replace the SEAP, the Ministry of Fisheries and Aquaculture (MPA). That year, the newly created ministry had as its main responsibilities to act on the duties related to national policy and the promotion of fisheries and aquaculture production<sup>1</sup>. To this day, the MPA assignments are directed towards the issue of public policies in order to encourage the research on aquaculture and fisheries, leaving IBAMA in charge of the supervision regarding environmental irregular activities practiced in Brazil. Currently, MPA is implementing support policies to the fishing activity, with actions aimed at safe-closed policy and increased aquaculture activity in Brazil.

### 3. The Colonies and Their Territoriality

The name of Fishermen Zone (Z that accompanies the name of the Colonies Fishermen) has nothing to do with the question of territory, *i.e.* ZONE in the name is used randomly without, however, being related to the conceptual question of territory, as limited space, while territorial boundaries where it attaches a power relationship. Moraes [12] notes that “(...) to be founded, the colonies received an identification made by the letter ‘Z’, whose meaning is related to fishing zone, plus a number, referring to chronological order foundation. Even today, they are so identified”.

Thereby, the area of understanding for the fishing activity is not related to a territory recognized and/or delimited, but is allusive to a name to differentiate the politically Fishermen Colony, according to their municipalities and/or districts of origin. When the lack of an efficient public policy to control access to the free resource occurs [17], the fishing effort tends to be increased which results in decreased production of fish that can be extracted and it is significant for both economic issue, as the social and environmental factors of those who live this activity [18] [19]. So when the fish becomes scarce in other places near the area of a colony, the trend is the pursuit of fish in other areas, which some fishermen reported as “invasion”, which has been promoting a series of conflicts between the fishing differentiated zones, complaining of competition for fish.

It is important to note that access to the fishery resource occurs in spaces of public domain (rivers, lakes, bays, etc.), however, barred from access, according to what determines in Brazil [20]. Therefore, contradicting what fishermen think (mostly artisanal), defining the fishing territories as individual or collective property of the col-

<sup>1</sup>Still in 2009 was published Law No. 11,959, of June 29, 2009, which provides for the National Policy for Sustainable Development of Aquaculture and Fisheries and seeks to regulate the fishing activities, highlighting the “sustainable use” and defining user criteria and mechanisms for use.

ony, is not prohibited to enter the the space of other fishing colonies in Brazil since regularized as a fisherman by IBAMA. In the following **Figures 1-7**, it turns out that this definition is common in Brazil.

In this sense, the colony of fishermen consider an invasion because it is fishermen from “outside” of the fishing area of the associated fishermen in the colony “invaded” which go to other fishing sites precisely because the law allows. This notion of invasion has to be revised, since the fisherman is registered in the General Register of Fishing Activity and the Federal Technical Registry [20], which allows the angler to fish anywhere in the Brazil, as stated above, and except for the areas during the closed season and locations set out in article 2: “X—exercise areas of fishing activity: inland waters, interiors, territorial sea, the continental shelf, the Brazilian exclusive economic zone, the high seas and other fishing areas as international agreements and treaties signed by Brazil, **excepting the demarcated areas as protected areas of full protection of nature or as heritage and those defined as exclusion areas for national security and for water traffic** (emphasis added)” [20].

It is important to mention the degree of organization of these social groups, when speaking in the exploitation of natural resources, as these movements can influence directly to a planning/planned and sustainable management of resources. Submission of a common social purpose, aimed at improving the lives of members, and the establishment of its territoriality and fishing tools (utensils) should be the basic principle of a colony.

The development of these processes of social organization, can reveal the ways in which social actors develop means of dealing or respond to the various problems involved one location. A colony of fishermen, when structured by a goal for the good of the community, can reap effective results, as a joint action allows the association to emerge from anonymity and have greater social expression, political and economic [7].

It is important to highlight that although government agencies and the Brazilian legislation [20] does not highlight the existence of territoriality among members of the various colonies of fishermen, these individuals have in their daily lives constant conflicts by the use of fishing territories, called “fishing grounds” which are where determined angler fishing daily and that gives this space a sense of identity and ownership. The territorial settings are visible in the vessels (**Figure 6**) that identifies the colony from which the fisherman is member, it gives an idea of its direct operating area (municipality, district, etc.).

The trend shows for the future is the need for a planning/mapping of the areas of activity of each colony in Brazil, so that fishery resources can be managed more appropriately. One of the proposals that comes with acceptance and is already being applied in some municipalities are fisheries agreements, using co-management mechanisms for planning and use of fisheries resources, as we shall see.

#### 4. The Fisheries Agreements: A Territorial Tendency to Fisheries Management?

Studies on the fishery universe, while economic activity in the Amazon region is varied [13] [21] [22], since this discussion is presented as transdisciplinary and is suitable for various areas of knowledge both the social sciences, as the natural. However, it is important to analyze the geographical instruments such as the relationship between society and nature and land management in fishing activities. In this sense, territoriality created by fishermen are examples of reproduction of the way of life of individuals in a given space, in specific territories, which require power relations and the use of a particular resource.

One of the factors that allow this immaterial and symbolic occupation of the territory, is the kind of feature that is available for human use, that is, dependent on the consumer market demand and has a direct influence on product value demanded by society. In the analysis of territoriality of fishing activities, despite the technical and dynamic allocated to water resources [23] [24], the major factor that determines the resource usage is their availability, related to several factors that influence the mobility or fishing in its setting (in the case of some gear).

However, that permeates the issues concerning identity and the correlation of their effective territorial expression, legitimizing the geographical approach is its cultural manifestation [6]. In this sense, there is a link, inseparable, between territory, culture and identity, the understanding of which helps to better theoretically understand the territorial identities, especially when the discussion aims to support the understanding of an activity consisting of people who depend on it, as in the case of fishing.

Another factor that allows the execution of territoriality in the fishing activity is the use of various gear (fishing gear), which determine the scope of its territoriality—be it the use of nets, reeds, or others. That way, according to the type of fixture their territory is delimited [25], and if that area is “overrun” by “outer fishermen” [26] consequences may occur due to overlapping territories and the disregard of the territories already condi-





**Figure 1.** Headquarters Fishermen Cologne Z-7 (Cumbuco beach—CE). (Source: Archive of Authors).



**Figure 2.** Headquarters Fishermen Tambaú—Cologne Z-3 (João Pessoa—PB). (Source: Archive of Authors).



**Figure 3.** Headquarters Fishermen Cologne Z-18 (Augusto Corrêa—PA). (Source: Archive of Authors).



**Figure 4.** Fisheries Palace—Fishermen Cologne Z-8 (Fortaleza). (Source: Archive of Authors).



**Figure 5.** Fishermen Cologne Z-13 (Cachoeira do Sul—RS). (Source: Archive of Authors).



**Figure 6.** Fishing vessel from Z-7 (Caucaia Beach—CE). (Source: Archive of Authors).



**Figure 7.** Capatazia do Taquari—Colônia Z-10 (Palmas—TO). (Source: Archive of Authors).

tioned in common agreement by its users, with the conflicts between individuals as a reflex. These conflicts can manifest itself in several different ways, fisherman with fisherman, fisherman with locals, artisanal fishing with commercial fishing, with tourists, and other users. These characteristics should be considered in the formulation of public policies directed to the fishing sector.

From the territorial analysis of fisheries, national and state level, it is observed that the land planning on these scales is a complex process because, when considering the rivers of the Amazon basin, for example, the limits are not imposed physically—materially and specifically, as are displayed in the government documents, as this does not occur in reality, where water resources are determined/ordered differently than continental space as rivers, lakes or seas are ordered by an agreement of the parties that use them, artisanal fishermen, farmers and other users, such as in the case of several fishing colonies which stipulate imaginary boundaries—imaterial [27], or even natural action, that is, provide their own territoriality. No doubt the fishing grounds territories can not be private, since they are a heritage of the Union and are public domain. However, communities that are directly affected by the daily dynamics of rivers and that depend on the river environment for its economic and food security, has won the right to manage these territories, guided by the shared management of natural resources, with emphasis on fishery resources.

The vast majority of conflicts identified in fishing on research in local and regional scales, which are directly related to the territoriality of fishermen, because these are conflicts over certain spaces—territories and the natural resources in these areas. As a result, in recent years in places where there are conflicts related to the use of fisheries resources and lack of management of these resources, as in the Amazon region, there were regulations and norms proposed by fishermen and later supported by public institutions working with the fishing (IBAMA, municipal secretariats, etc.). Thereby, the so-called fisheries agreements have become a reality in several locations in the Amazon [28] [29].

The discussion of the first fisheries agreements began in the Amazon even in the 1970s, due to increased conflicts in the competition for fish stocks, provided incentives for the deployment of fishing industries in the Amazon. However, recognition of these agreements as a legal instrument for the management of fishery resources occurred only in 2002, through IBAMA (the agency responsible for fisheries management in Brazil) by means of the publication of Normative Instruction No. 29, establishing “a series criteria for the regulation of the same” [30] recognizing the fisheries agreements as instruments of management of fisheries resources.

In this case, the co-administration or co-management, is a way to highlight the traditional knowledge of fishermen through the sharing of responsibilities, which the Government and communities share the management of local natural resources. This trend has been to add to the studies conducted in various locations around the world [1] [31] [32] and Brazil [28] [30] [33], demonstrating the ability that communities have in the management of natural resources and the fishing spatial planning, reducing internal conflicts and increasing production and income communities.

In this context, fisheries agreements are by their collective management tools of fish stocks (and may extend



to other natural resources) that, through dialogue among fishermen colonies and associations, together with the bodies responsible for legalization and supervision of fishing activity, establish standards of ownership of these resources, with the use of ordinances which have the force of law, such as Regulatory Instructions [34]. Such agreements have been made in order to reduce conflicts between users and minimize the fishing effort, increasing productivity. From the fisheries agreements, fishermen are recognized by the state as co-responsible for the management of fisheries resources that are available in the territory together with the bodies responsible for monitoring and legalization of activity in the areas where fishing occurs.

However, the institutionalization of these agreements depends on the government, which has its shortcomings as lack of staff and equipment, accruing from the initiatives of the fishermen themselves in partnership with the fishing colonies in seeking such agreements, as they are the key stakeholders and are in most municipalities. [28] also states that one of the main strategic directions that guide the fishery management process should be focused on the basis of the management process based on scientific technical knowledge and participation of the users of fishery resources. Thereby, the process of planning and management of fisheries resources should take into account the existing and available technology and scientific knowledge, prepared as a tool for the implementation of sustainable management techniques, both for man and for the exploited natural resources.

## 5. Conclusions

The fishing activity has been known since the earliest times of mankind, when man was adapting to the external environment in order to meet one of their basic needs: food. Over the years new technologies have been increasing the Fisherman's possibilities of action, with the direction to increase production, not only to satisfy their basic needs, but also their material needs. Thereby, several authors cling to research the activities of man and their way of life, with the primary research space the working environment that includes fishing, be it handmade, industrial or otherwise. There is no doubt the importance of fishing activity in the present moment, where fisheries represent a source of income for fishermen and part of the diet of the inhabitants of both the city and rural areas.

Nowadays, it is possible to observe work done to minimize some problems for use of fisheries and aquaculture resources, emphasizing the development of fisheries agreements which are already a reality in several locations in the Amazon. However, its institutionalization still depends on the government, which has its shortcomings as lack of staff and equipment, this generates the initiatives of fishing colonies in seeking such agreements, as they are the key stakeholders and are in most Amazonian municipalities.

Thereby, discussing the use of resources implies speaking of territory, because the apprehension that has the resources to return the need to have/own a good or object. In this sense, the concept of territory is fundamental to discuss any human activity that takes place on the geographical space. In this way, the correct analysis of a concept is by means of its discussion, dialogue and seeking resolution of conflicts, and sometimes is the conflict that are revealed understandings of this concept, as they allow the individual to better visibility limits territorial for each one.

It is apparent that despite the importance of conceptually discussing the territorial issue, this concept has been cheapened so that it is added to the government discourse in several documents that sticks to propose the use of space by the government or its projects. A fisheries management model that takes into account the artisanal fisherman becomes necessary, since it considers, besides the location of fish stocks, the local culture of fishermen that these resources are used. In this sense, fisheries agreements show up as a trend to be followed in the management of small and medium fishing grounds. Thus, the increase in research in this direction can already be seen, what is missing now is the engagement of government institutions in this debate, for the development of specific public policies that meet the wishes of the people affected by these policies.

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## References

- [1] Berkes, F. (2006) From Community-Based Resource Management to Complex Systems: The Scale Issue and Marine

- Commons. Ecology and Society, **11**, 45. <http://www.ecologyandsociety.org/vol11/iss1/art45/>
- [2] BRASIL. Ministério da Integração (2005) Para pensar uma política nacional de ordenamento territorial. Ministério da Integração, Brasília.
- [3] BRASIL. Ministério da Integração (2006) Política Nacional de Ordenamento Territorial. Ministério da Integração, Brasília.
- [4] BRASIL. Ministério da Pesca e Aquicultura (2008) Política de desenvolvimento territorial da pesca e Aquicultura. Ministério da Pesca e Aquicultura, Brasília.
- [5] BRASIL. Ministério da Pesca e Aquicultura (2008) Plano de Desenvolvimento Sustentável Mais Pesca e Aquicultura. Ministério da Pesca e Aquicultura, Brasília.
- [6] Haesbaert, R. (2007) Identidades Territoriais: Entre a multiterritorialidade e a reclusão territorial (ou: hibridismo cultural à essencialização das identidades). In: Araujo, F.G.B. and Haesbaert, R. Eds., *Identidades e Territórios: Questões e olhares contemporâneos*, Access, Rio de Janeiro, 33-56.
- [7] Silva, C.N. (2006) Territorialidades e modo de vida de pescadores do rio Itaquara, Breves—PA. PPGeo/UfPA, Belém.
- [8] Santos, H.A. (1997) Direito pesqueiro: Decreto-lei n. 221/67. IOEPA, Belém.
- [9] Villar, F. (1945) A missão do cruzador “José Bonifácio”: Os pescadores na defesa nacional—A nacionalização da pesca e a organização dos seus serviços (1919-1923). Gráfica Laemmert, Rio de Janeiro.
- [10] Debané, N.J. (1924) Subsídios para o estudo da economia nacional brasileira. A pesca e os pescadores no Brasil. No ponto de vista econômico e social. Imprensa Nacional, Rio de Janeiro.
- [11] Campos, A.J.T. (1993) Movimentos sociais de pescadores amazônicos. In: Gonçalves, L.G., Leitão, W. and Mello, A.F., Eds., *Povos das águas: Realidades e perspectivas na Amazônia*, MCT/CNPq/MPEG, Belém, 231-242.
- [12] Moraes, S.C. (2002) De homens e peixes: A metamorfose da vida na água. Dissertação (Mestrado em Educação), Universidade Federal do Rio Grande do Norte, Natal.
- [13] Moraes, S.C., et al. (1996) Delineamento da situação das organizações sociais de pescadores amazônicos: O caso do Nordeste Paraense. In: Ximenes, T., Org., *Políticas pesqueiras nos países amazônicos*, UNAMAZ/NAEA/UfPA, Belém, 437-502.
- [14] Torres, M.F., Silva, M.L. and Yuimachi, N.B. (1996) O gerenciamento de estoques pesqueiros: O caso da piramutaba. In: Ximenes, T., Org., *Políticas pesqueiras nos países amazônicos*, UNAMAZ/NAEA/UfPA, Belém, 279-363.
- [15] Cardoso, E.S. (1996) Vitoreiros e monteiros: Ilhéus do litoral norte paulista. Universidade de São Paulo, São Paulo.
- [16] Manesch, M.C. (1993) Ajuruteua: Uma comunidade pesqueira ameaçada. CFCH/UfPA, Belém.
- [17] Abadía, P.R. and Bacha, C.J.C. (2003) Las políticas de reglamentación de la pesca em Brasil. *Revista Cubana de investigaciones pesqueras*, **23**, 21-25.
- [18] Iudicello, S., Weber, M. and Wieland, R. (1999) Fish, Markets, and Fishermen. Inland Press, Washington.
- [19] Almeida, O.T. (2006) Manejo da pesca na Amazônia brasileira. Petrópolis, São Paulo.
- [20] Brasil (2009) Lei nº 11.959. Dispõe sobre a Política Nacional de Desenvolvimento Sustentável da Aquicultura e da Pesca. Casa Civil, Brasília.
- [21] Mcgrath, D.G. (1993) Manejo comunitário dos lagos de várzea do Baixo Amazonas. In: Gonçalves, L.G., Leitão, W. and Mello, A.F., Eds., *Povos das águas: Realidades e perspectivas na Amazônia*, MCT/CNPq/MPEG, Belém, 389-402.
- [22] Furtado, L.G. (2008) Experiências de desenvolvimento sustentável em comunidades haliêuticas na Amazônia. In: Teisserenc, P., et al., Eds., *Coletividades locais e desenvolvimento territorial na Amazônia*, Numa/UfPA, Belém, 301-312.
- [23] Silva, C.N. (2008) Cartografia das percepções ambientais-territoriais dos pescadores do estuário amazônico com utilização de instrumentos de geoinformação. *Revista Formação*. UNESP, Presidente Prudente, 118-128.
- [24] Silva, C.N. (2009) O conceito de território nos estudos sobre pesca. In: *Caminhos e lugares da Amazônia: Ciência, natureza e território*, 1st Edition, Vol. 1, GAPTA/UfPA, Belém, 35-54.
- [25] Silva, C.N. (2007) A percepção territorial-ambiental em zonas de pesca. *Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas*, **2**, 25-32. <http://dx.doi.org/10.1590/S1981-81222007000300004>
- [26] Leitão, W.M. (2008) Na proa da canoa, ou como se tornar pescador: A identidade do trabalhador da pesca no estuário do rio Amazonas. In: *Seminário Internacional Amazônia e fronteiras do conhecimento*, 2008, Belém, *Livro de Resumos do Seminário Internacional Amazônia e fronteiras do conhecimento*, Biblioteca do NAEA, Belém.
- [27] Fernandes, B.M. (2008) Entrando nos territórios do território. In: Paulino, E.T. and Fabrini, J.E., Org., *Campesinato e*

*territórios em disputas*, Expressão Popular, São Paulo, 273-302.

- [28] Ruffino, M.L. (2005) Gestão do uso dos recursos pesqueiros na Amazônia. IBAMA, Manaus.
- [29] Silva, A.L. and Begossi, A. (2004) Uso dos recursos por ribeirinhos no médio Rio Negro. In: Begossi, A., Org., *Ecologia de pescadores da Mata Atlântica e da Amazônia*, Hucitec, São Paulo, 89-148.
- [30] D'almeida, B.G. (2006) Os acordos de pesca na Amazônia: Uma perspectiva diferenciada de gestão das águas. In: *XV Encontro Preparatório do Conselho Nacional de Pesquisa e Pós-graduação em Direito—Recife*, CONPEDI, Recife, 1-15.
- [31] Berkes, F., *et al.* (2006) Gestão da pesca de pequena escala: Diretrizes e métodos alternativos. Ed. Furg, Rio Grande.
- [32] Berkes, F. and Davidson-Hunt, I.J. (2010) Innovating through Commons Use: Community-Based Enterprises. *International Journal of the Commons*, **4**, 1-7.
- [33] Castro, F. (2004) Níveis de decisão e o manejo de recursos pesqueiros. In: Begossi, A., Org., *Ecologia de pescadores da Mata Atlântica e da Amazônia*, HUCITEC, São Paulo, 255-284.
- [34] Raseira, M.B. (2007) Monitoramento participativo dos acordos de pesca: Como avaliar a captura de pescado. IBAMA/ProVárzea, Manaus, 24 p. <http://www.ebah.com.br/content/ABAAeIUkAF/cartilha-monitoramento>