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Current situation and future perspectives of ethnoichthyology in Brazil

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ABSTRACT

Ethnoichthyology has been highlighting in several regions of the world, due to the collaboration of studies that seek to understand the traditional or local ecological knowledge about different uses and meanings of fish among different human groups. Therefore, we present a systematic review of the literature concerning the current situation of ethnoichthyological studies in Brazil. We examine the temporal and spatial citation trends in Brazil, as well as who are the research actors and the thematic areas covered in the articles. In all, 177 published articles related to the topic were found in Brazil. The number of published articles increased significantly in time, with most studies concentrated in the Northeast Region of the country (44.4%), especially in the state of Bahia (16.8%). The types of aquatic environments include both marine and freshwater, such as sea (46.3%) and rivers (70.2%). The articles mainly rely on the collaboration of artisanal fisherman (74.3%). The topic most frequently addressed in the studies was bio-ecological aspects of fish (33.8%). On the other hand, studies on morphological aspects (2.7%) represented the less frequently among the thematic areas. We concluded that ethnoichthyology is increasing significantly in Brazil. However, some issues needed to be better understand, especially the knowledge of the recreational fishermen, the morphological aspects of the fish species by local fishermen and there are few studies in South and Midwest in Brazil, which will indicate the future efforts to improve the species conservation and the resource management.

Keywords: Ethnobiology; Ethnozoology; Ethnosciences.

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SIGNIFICANCE STATEMENT

Ethnoichthyology has been emerging in several regions around the world in an attempt to understand the different uses and meanings of fish. We realized a systematic review of the literature concerning the current situation of ethnoichthyology in Brazil. We recorded a significantly temporal increase in the number of published papers and they are concentrated in the Northeast of Brazil. However, little studies have been realized on fish morphological aspects. As a recommendation, emphasis should be applied on understand the knowledge of the recreational fishermen and the morphological aspects of the fish species by local fishermen. Thus, we hope that it will serve as support for researchers, professors, students and stakeholders in future projects that involve interactions between men and fish.

INTRODUCTION

Ethnoscience is a very useful approach for understanding the knowledge that human communities has about the environment where they live (Ramires and Barrella 2004). Among the different areas of ethnoscience is ethnozoology, which aims to study the different types of interactions between people and fauna throughout history (Alves and Souto 2015). Thus, ethnoichthyology, a subdiscipline of ethnozoology, has been emerging in several regions around the world (Castillo et al. 2018; Jácome-Negrete 2012; Olarinmoye and Olarinmoye 2013; Ruiz-Velásquez et al. 2017) in an attempt to understand the different uses and meanings of fish, especially the cognitive and behavioral aspects of interactions, in different human groups (Costa-Neto et al. 2002; Marques 2012).

In this way, the first studies with an ethnoichthyological approach were carried out by Morrill (1967) and Anderson Jr. (1967). Morrill's (1967) article addressed fishermen's knowledge of the ecological, taxonomic, behavioral and toxicological aspects of marine fish in St. Thomas, Virgin Islands. Morrill's used the term "ethnoichthyology", following the model of ethnobotanical studies (Marques 2012). In addition, Anderson Jr. (1967) evaluated the nomenclature and taxonomy of fish used by Hong Kong fishermen using ethnographic tools aimed at studying the classification of items, language events and thoughts. This was due to the influence of increased anthropological studies directed at the native classification and terminology systems of his time. Since then, both studies have become references for ethnoichthyologists worldwide.

As a consequence, in Brazil, ethnoichthyology began to stand out in the mid-1970s. The seminal paper was published by Maranhão (1975) on which him evaluated the decision to navigate, the classification of the tides and the identification of the productive fishing areas by fishermen from the community of Icaraí, Ceará. This research became innovative for Brazilian ethnoichthyologists. However, only since the early 1990s has ethnoichthyology increased substantially (Marques 2012). In particular, it has been driven by Begossi and Garavello (1990), who analyzed the criteria for the classification and use of fish by fishermen in the middle Tocantins River.

Ethnoichthyology has been considered by some Brazilian scientists as a new line of research that has been gaining prominence in the country (Alves and Souto 2011; Silvano 2013). In addition, this subject has been contributed significantly to the management of fisheries resources and to improve the implementation of the fisheries management plans (Begossi et al. 2011, 2012; Medeiros et al. 2018; Silvano and Valbo-Jorgensen 2008). This is especially true for generating relevant information regarding the ecological and biological aspects of fish species, both in marine and freshwater environments throughout Brazil (Silvano 2013).

For that matter, Brazil is a country with a rich biological and cultural diversity, a favorable scenario for the study of the relations between people and animals (Alves and Souto 2011). However, ethnoichthyology studies in the country are still recent and are concentrated in a few regions (Alves and Souto 2011; Silvano 2013). In addition, much of the information surrounding this ethnoscience is still inconsistent, making it difficult to assess the increase achieved over the past few years, as well as the obstacles faced. Making it necessary to conduct a study that answers such questions, as it will contribute to the development of future studies, demonstrating the main thematic areas employed and how studies in the area are established, in addition to pointing out which regions are less attended, thus directing researchers to new study areas, which will be able to generate new information referring to fish species from different aquatic environments and describe the different ways of using fishing resources by local human populations.

Given the gaps highlighted above, the purpose of this paper was to perform a systematic literature review to evaluate the current situation of ethnoichthyology in Brazil and, in addition, to direct future researches. Specifically, we intend to answer the following questions: i) What is the temporal trend in the publications on ethnoichthyology studies in Brazil? ii) How is the number of publications distributed among the different regions of Brazil? iii) What types of aquatic environments have been studied? iv) Who are

the research actors? and v) What are the thematic areas covered in the articles?

MATERIAL AND METHODS

Search strategy

In February 2020, a systematic review with a keyword-driven approach was performed using the databases of the following platforms: Google Scholar (scholar.google.com.br), Scopus (scopus.com), Coordination of Superior Level Staff Improvement (CAPES Periodicals); and Web of Science (apps-webofknowledge), searching for all publications that addressed the topic of "ethnoichthyology in Brazil". On the Web of Science and Scopus platforms, the search terms in the "Topic" field were as follows: (Brazil*) AND (etnoichthyol*) AND (fish*) AND (knowledge) AND (ethnotaxonomy), and the period in which the publications were searched from January 1990 (the decade of the first publication in Brazil) to February 2020. While for searches with the CAPES Periodicals and Google Scholar platforms, the following search terms were used in Portuguese: ethnoichthyology, fisherman ethno-knowledge, fish ethnobiology, fisherman's perception in Brazil, local ecological knowledge of fisherman, knowledge of Brazilian fisherman, and ethnotaxonomy of fish in Brazil. The terms fisherman and fisherwoman were also tested in combination with the keywords.

In addition, we used the All Databases level to maximize the number of studies available in the databases (e.g., all environment types, all regions, and all types of publications). All database searches may include not only journal articles but also other types such as conference papers and book chapters. This resulted in an initial pool of 556 publications (Figure 1). Then, we refined the search by removing duplicates. This step produced 442 publications (Figure 1). After this, we screened the abstracts to identify whether the publication met our criteria.

Selection criteria

Non-related articles with ethnoichthyology in Brazil were excluded based on the title, abstract, or, if necessary, after a careful reading of the entire text. Previous reviews and meta-analysis, publications in the format of congress abstracts, course completion papers, dissertations and theses were excluded. Subsequently, we reviewed the full text of 294 studies (Figure 1). Some publications were excluded in subsequent steps if they did not meet our three criteria as follows: a) the article should fit the concept of ethnoichthyology defined by Marques (2012), which states that "ethnoichthyology is the study of the cognitive and behavioral knowledge of the human population on the various uses and meanings of ichthyofaunistic resources"; b) the objective of the study should be directly or indirectly related to the uses and meanings of fish for the human population; and finally, c) the study should be carried out in Brazil. One hundred seventy seven articles (Figure 1) that met the abovementioned criteria were selected and included in our systematic review. The publication inclusion process followed the PRISMA guidelines, which include recommendations to follow when conducting systematic reviews such as criteria for searching publications and inclusion or exclusion of studies (Moher et al. 2009).

Data collection and analysis

We systematically evaluated the publications using 17 quantitative steps for summarizing the current situation of ethnoichthyology in Brazil, as described in Table 1. Some papers were classified in more than one category; as a result, the data presented herein do not necessarily represent the number of papers. Rather, they include the information extracted in the studies, because not all the publications presented all the information of interest. Also, the numbers included in the analyses are not always the same, because papers were counted multiple times when necessary (e.g., some studies were carried out in more than one region, environment, research actors or thematic area) (the total number of data per analysis is available in Additional files 1 and 2). In this case, we chose to record the relative frequency of information for both categories.

In order to present the results, the 17 categories were summarized in five quantitative variables as follow: 1) Year was used to determine time trend in publications on ethnoichthyology in Brazil. 2) Region of Brazil (South, Southeast, Midwest, Northeast and North) was evaluated to show the geographical range of ethnoichthyological publications. 3) Aquatic environment was examined to determine the environment types in which ethnoichthyological studies are most frequently carried out. 4) Research actors were identified to determine who are the people most frequently studied in ethnoichthyological papers. And finally, 5) thematic areas were registered to suggest key areas needed for improving to direct future researches in Brazil.

RESULTS

In all, 177 published articles related to ethnoichthyology in Brazil were recorded from January 1990 to February 2020 (List of articles included in the systematic review in Supplementary material 2). The

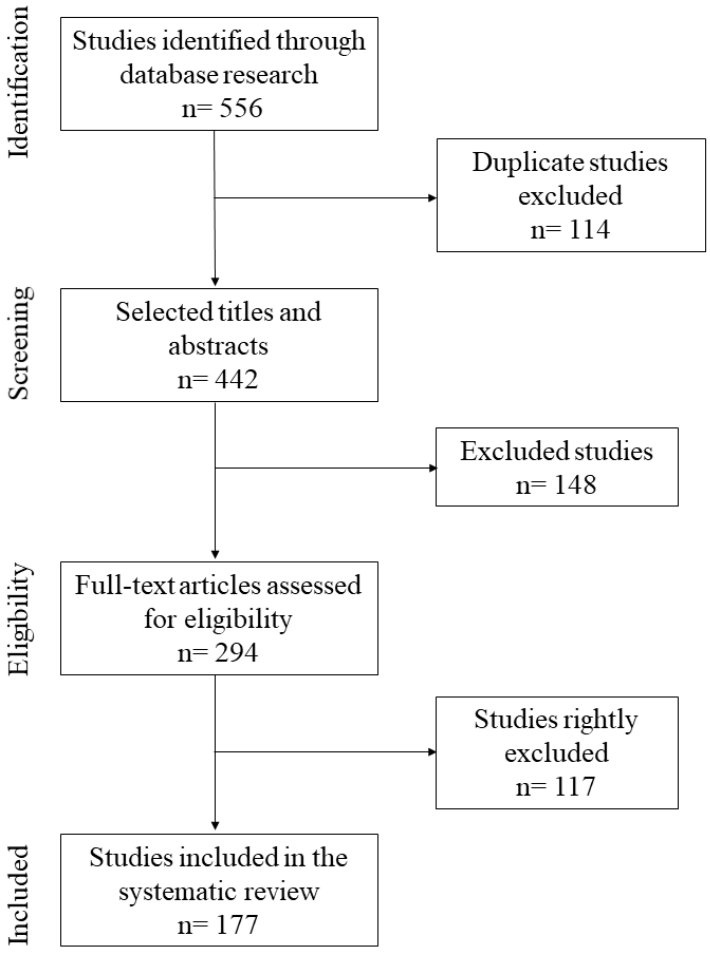

Figure 1. Flowchart of the process of identification, selection and eligibility of studies for systematic review.

number of published papers increased significantly, in a way exponentially, in time (nonlinear adjustment; $r = 0.81$; $p < 0.01$; Figure 2), with the number of published papers increasing by seven articles by year (Figure 2). Most studies were carried out from 2000 to 2018, reaching a peak in 2016, with 22 published articles (Figure 2).

The first articles on ethnoichthyology in Brazil were published in 1990, and only two papers were published in that decade. Since then, several studies have been developed in different Brazilian geographic regions (Figure 3a). Our results revealed that the largest number of published articles on ethnoichthyology occurred in the Northeast Region of the country (44.4%; Figure 3a). On the other hand, the South and Midwest Regions had the lowest percentage of published articles (11.1% and 3.5%, respectively; Figure 3a).

The largest number of articles by state was recorded from Bahia (16.8%; Figure 3b). However, São Paulo (11.1%), Rio de Janeiro (8.8%), Amazonas (8.4%) and Pará (8.4%), Santa Catarina (5.7%) and Paraíba (5.3%) also have recorded a high number of published papers on ethnoichthyology compared to that of other Brazilian states (Figure 3b). Most studies were carried out in marine environments (57.7%). These studies were concentrated in the coastal region, more precisely at inshore sites (Figure 4a) while few studies have been carried out in coastal lagoons and reefs (5.5% and 4.6%, respectively; Figure 4a). On the other hand, fewer studies were performed in freshwater environments (42.2%), most of which were carried out in rivers (Figure 4b) and only 2.3% were performed in streams (Figure 4b).

Fishermen accounted for the largest share (94.6%) of research actors in ethnoichthyological surveys, especially artisanal fishermen (74.3%; Figure 5). Other types of fishermen, such as traditional (16.5%) and recreational (3.7%), had minor participatory roles in studies. In addition, other important players in the development of ethnoichthyology, such as fish traders and consumers (2.1%), students (2.1%) and teachers

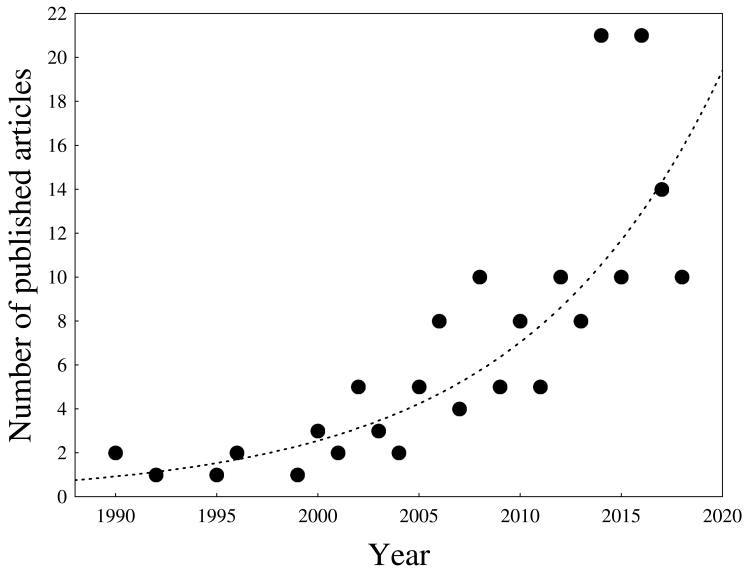

Figure 2. Temporal trend in the number of published articles on ethnoichthyological issues in Brazil from January 1990 to February 2020.

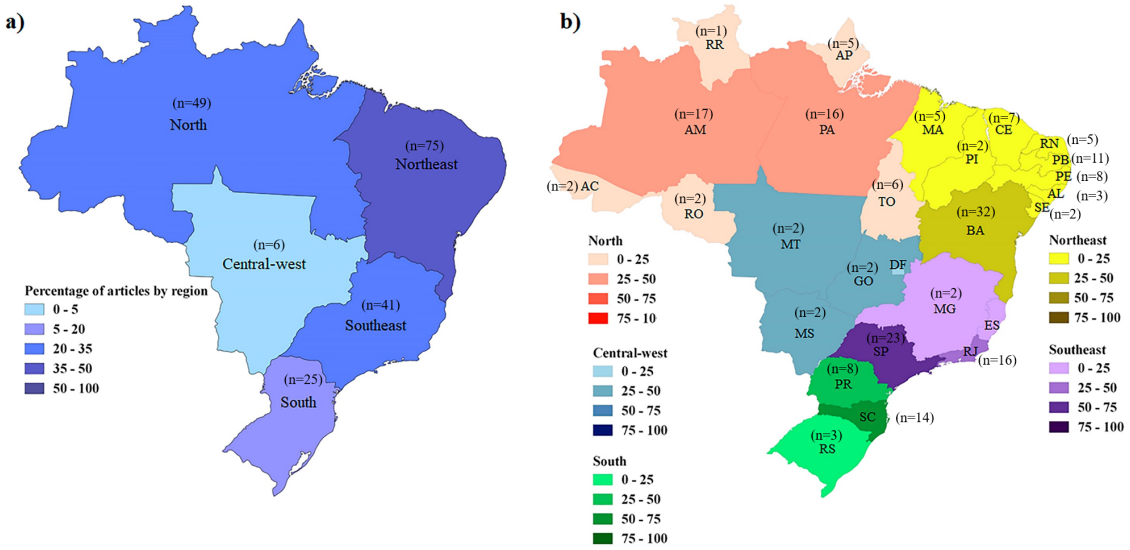

Figure 3. Percentage (represented by different shades of colors, blue in (a) and different colors by region in (b)) of ethnoichthyological studies by region (a) and Federative Unit (UFs) of Brazil (b) evaluated from January 1990 to February 2020. The numbers in parentheses indicate the numbers of studies by place. As some studies involved more than one region, the total number in parentheses does not represent the total number of papers.

Table 1: Categories and variables used in systematic analysis.

Categories	Data variables
Temporal distribution of ethnoichthyological studies in Brazil	year of publication as indicated in the article.
Percentage of production by regions and Federative Units (UFs) in Brazil	the location of the study described in the article was considered.
Marine environment	sea, estuary, bay, beach, coastal lagoon, reef
Freshwater environment	river, lake, reservoir (supply or generation of energy), stream
Artisanal fisherman	professional fishermen, subsistence fishermen, ornamental fish fisherman, fisherman and farmer, specialist fishermen, tour guides, riverine people
Traditional fisherman	artisanal fishermen belonging to indigenous, quilombola and caižara (traditional inhabitants of the coast of the Southeast and South regions of Brazil) populations
Recreational fisherman	amateur fisherman, sport fisherman (catch and releasing), scuba diver
Trader fish/Consumer	traders and consumers interviewed at fish markets and fairs
Student	elementary, high school or university students
Researcher/Teacher	researchers or teachers from public educational institutions
Bio-ecological aspects of fish	aspects of feeding, reproduction, behavior, trophic interactions, migratory movements, habitats, mortality, growth, time-space distribution
Environmental changes	environmental impacts motivated by anthropogenic or natural causes, including the effects of dam construction, overfishing, changes in fish composition, habitat modifications
Ethnotaxonomy (Folk monomials)	popular classification of fish according to cultural criteria
Food preferences and Taboos	human diet, taboos and eating habits by fish
Fishing techniques and equipment	fishing gear, techniques and methods
Use of icthyofaunistic resources	medicinal, food, commercial, handicrafts, religious and spiritual purposes
Morphological aspects	ethnoknowledge related to fish morphology, anatomy and physiology

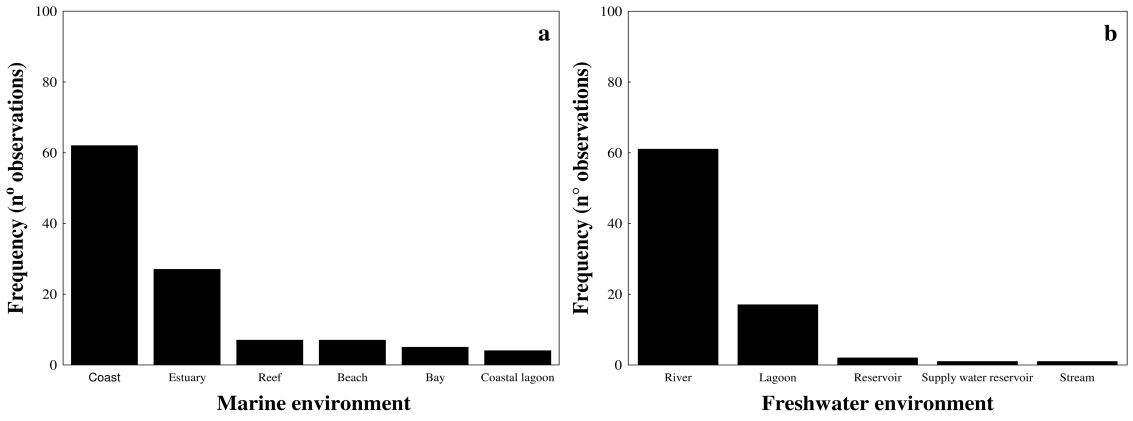

Figure 4. Number of published articles on ethnoichthyological subject in Brazil from January 1990 to February 2020 per type of aquatic environment; a) Marine and b) Freshwater environments.

and scientists (1.0%), also had a small participation in the studies (Figure 5).

The ethnoichthyological studies addressed seven different thematic areas (Figure 6). Most of them were related to the study of the bio-ecological aspects of fish (33.8%) (Figure 6). In addition, studies related to fishing techniques and equipment and the uses of ichthyofaunistic resources, represented approximately 9.3% of the all studies. While, studies that evaluated the morphological aspects of fish species represented only 2.7% of the articles (Figure 6).

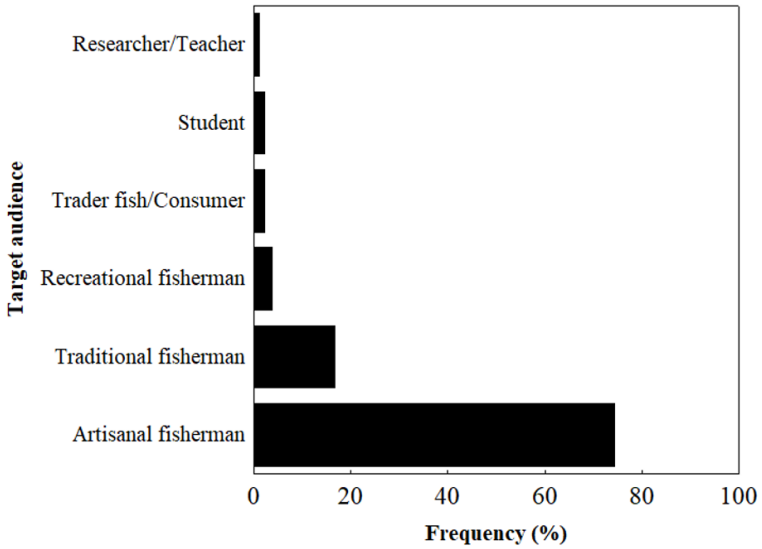

Figure 5: Main categories of research actors identified in ethnoichthyological studies in Brazil from January 1990 to February 2020.

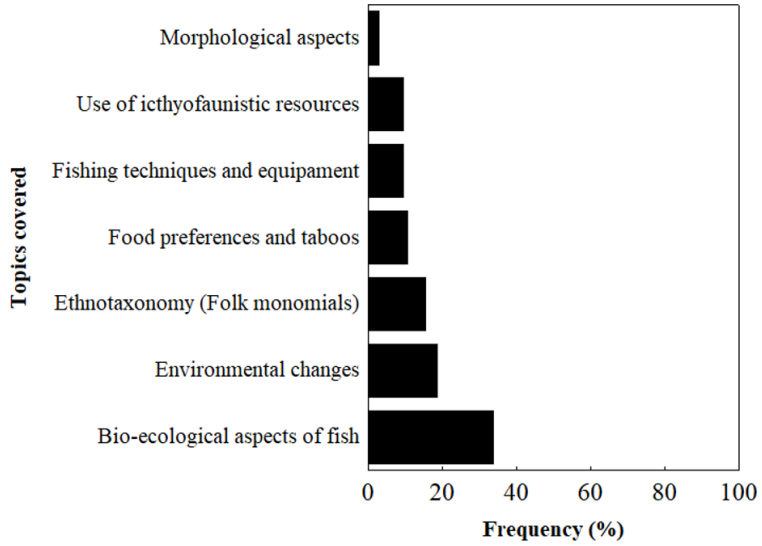

Figure 6. Main thematic areas addressed in the ethnoichthyological studies in Brazil from January 1990 to February 2020.

DISCUSSION

Our results showed that the number of articles on ethnoichthyology has increased exponentially in recent years in Brazil, especially since 2000. This increase in published ethnoichthyological articles is not surprising, given that in recent decades, ethnoichthyology has been prominent in the research involving human relationships with animals (Albuquerque et al. 2013; Alves and Souto 2011; Alves et al. 2017; Costa-Neto 2000; Lyra-Neves et al. 2015). Ethnoichthyological studies are easy to apply, highly efficient for obtaining short-term information and have a low execution cost compared with other studies on fishery resources.

Other factors have also contributed to the increase in publications on ethnoichthyology in the country, such as the importance of fish for human food and the absence of excessive restrictions on the capture and commercialization of fish compared with those of other animals (Alves and Souto 2011). In addition, the increase in researchers with training and specialization in ethnobiology and the emergence of specific Brazilian journals for the publication of studies in

the various areas of ethnobiology and ethnoecology (i.e., *Ethnobiology and Conservation* and *Ethnoscientia*) have made Brazil a reference in this field in Latin America (Alves and Souto 2011; Alves et al. 2017; Albuquerque et al. 2013).

For studies of ethnoichthyology and other areas of ethnozoology to continue to increase in number and be even more concentrated in Brazil, some points must be addressed: i) An improvement of the methods, which are mostly descriptive, is needed, and ii) elaboration of studies with hypothesis testing and the use of quantitative analysis methods is also needed. According to Lyra-Neves et al. (2015), in a review of methodological problems in ethnozoology in Brazil, most studies presented some type of sample deficiency. In addition, these same authors suggest that the use of tests and quantitative statistical analyses are indispensable for the improvement of the articles. iii) An increase in the number of scientists and research groups focused on ethnobiology will the increase the knowledge of less studied regions.

The accomplishment of some historical events in the country in recent decades has been fundamental for the present scenario of growth that the studies of ethnoichthyology have shown. These accomplishments include the first International Congress of Ethnobiology (1988), in which the International Society of Ethnobiology (ISE) was created, and later the first Brazilian Symposium on Ethnobiology and Ethnoecology (1996), at which the Brazilian Society of Ethnobiology and Ethnoecology was created. This entity has provided means for the dissemination of the studies carried out in the various clusters of ethnosciences, through its own publisher and the organization of international events (Alves and Souto 2011; Albuquerque et al. 2013; Haverroth 2018).

Ethnoichthyological studies have considered different regions and states of Brazil. However, some regions, such as the Northeast and Southeast Regions, have presented more articles than others. Consolidated research groups and pioneering scientists are present in these areas, and ethnobiology, ethnoecology and their clusters (ethnozoology, ethnobotany, and ethnoichthyology, among others) are the main lines of research (Alves and Souto 2011). In addition, these regions have extensive coastal areas where Brazilian fisheries are concentrated. In this sense, there is the need to obtain information about fish species from the Brazilian coast and to give credibility to the data of local fishing landings (Begossi et al. 2016). On the other hand, despite the rich diversity of fish recorded in the South and Midwest regions of Brazil, our results indicated that few studies on ethnoichthyology have been conducted in these regions (Agostinho et al. 2001; Cavalli et al. 2018; Delariva et al. 2019; Florentino et al. 2016; Froehlich et al. 2017). Understanding the ethnoichthyology of these regions can generate important information on the behavioral, reproductive and dietary aspects of fish species, as well as the use of fishing resources by residents of the region, thus contributing to the provision of data that will assist in the construction of regional fisheries management policies.

Our results revealed that artisanal fishermen were the main research actors in ethnoichthyological research in Brazil. According to Begossi et al. (2016), who assessed the knowledge of fishers off the coast of Brazil, the choices of fishermen are associated with the wealth of information that these characters present about the fish and the environments in which they occur. Such knowledge provides scientists with important data that complement fishery statistics and contribute to the construction of fishery resource management plans (Ramires et al. 2012). Despite the real contributions that local fishermen's ecological knowledge has made to ethnoichthyology studies, it is necessary to have a greater participation of different actors linked to the fishing activity to elaborate of the studies, such as fish traders and consumers, students and researchers/teachers. For example, Braga et al. (2016), demonstrated through the registration of the local ecological knowledge of local fish traders and consumers in Santarém, Amazon region, Brazil, that the changes in the food choices of these actors over the years, ended up directly influencing the way in which fish stocks are exploited.

Our results revealed that understand the bioecological aspects of fish are the most studied thematic in ethnoicthyological papers carried out in Brazil. As a consequence, most of the studies carried out in the country address consolidated thematic areas, for example, the use of local ecological knowledge in obtaining information related to the biological and ecological aspects of species of commercial importance such as snappers Lutjanidae (Andreoli et al. 2014; Begossi et al. 2011; Caló et al. 2009), bluefish *Pomatomus saltatrix* Linnaeus, 1766 (Silvano and Begossi 2005, 2010), sardine *Sardinella brasiliensis* Steindachner, 1879 (Braga et al. 2018a,b) and the jaraqui *Semaprochilodus* spp. (Batista and Lima 2010) in the Amazon; or even species that are in a state of ecological vulnerability, such as the grouper *Epinephelus* spp. (Begossi and Silvano 2008; Zapelini et al. 2017), or of those that are still little studied as sharks Elasmobranchs (Barbosa-Filho and Costa-Neto, 2016; Barbosa-Filho et al. 2014, 2016) and seahorses *Hippocampus* spp. (Rosa et al. 2005; Ternes et al. 2016).

In addition, our results also showed that the perception of environmental changes by research actors have been an important thematic area addressed in ethnoicthyological articles in Brazil. As a result, sev-

eral authors have highlighted the identification of possible environmental changes through the perception of users of fishing resources, whether due to natural or anthropic causes (Azevedo-Santos et al. 2010; Bender et al. 2013; Hallwass et al. 2013; Lima et al. 2010; Martins et al. 2018; Porcher et al. 2010; Santos and Alves 2016), even if in other countries there are reported a disconnection in complex social-ecological systems in the perception on environmental changes (see Rassweiler et al. 2019). Also, our results revealed that ethnotaxonomy of fish, in which it aims to study the forms of popular classification (folk nomenclature) in different cultures, has become a tool widely used by Brazilian researchers over the years, covering several regions of the country (Batista et al. 2016; Begossi and Garavello 1990; Begossi and Figueiredo 1995; Begossi et al. 2008; Carvalho et al. 2018; Clauzet et al. 2007; Mourão and Nordi 2003, 2002a, 2002b).

Given this scenario, it is noted, in our results, that there are few studies on morphological aspects of fish in relation to the other thematic areas of ethnoichthyology. Studies on morphological aspects have aided researchers in identifying signs of sexual dimorphism in species in which sex cannot be precisely determined. For example, this approach have been used to Pirarucu *Arapaima gigas* Schinz, 1822 in the Amazon (Lopes and Queiroz 2009) and for *Hoplias aimara* Valenciennes, 1847, as noted by Gama (2014) in his study carried out in the state of Amapá, which reported evidence of external sexual characteristics in this species for the first time based on the personal observations of local fishermen during scientific expeditions in the region.

CONCLUSION

Although our word choices to search for publications on ethnoichthyology in Brazil might produce bias and limitations to the generalization of the conclusions, we believe that our number of articles revised can be a representative sample on current situation of ethnoicthyology in Brazil. As a result, in summary, we concluded that ethnoichthyology currently shows a significant increase in Brazil and that this scenario should continue in the coming years, since the country has played a fundamental role in the consolidation of ethnobiology in Latin America. Therefore, it is necessary that future studies include regions that are still little studied by this ethnoscience, as they have a rich ichthyofaunistic diversity, which may favor the emergence of new information about local species. We emphasize that it is necessary to include other actors, such as fish traders and consumers, students and researchers, who can provide a different view regarding the use of local fishing resources. In addition, we conclude that topics that are rarely addressed, such as the use of local ecological knowledge for the morphological identification of species, need further studies and may also guide future approaches. We hope that the information contained in this study can contribute even more to the increase in ethnoichthyology in the country, and that it will serve as support for researchers, professors, students and stakeholders in future projects that involve interactions between men and fish.

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DATA AVAILABILITY

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

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

CONTRIBUTION STATEMENT

Conceived of the presented idea: A.T.O., D.S.L., É.A.G. Carried out the experiment: D.S.L. Carried out the data analysis: D.S.L., É.A.G. Wrote the first draft of the manuscript: D.S.L., P.L.S. Review and final write of the manuscript: D.S.L., A.T.O, P.H.R.A., É.A.G. Supervision: A.T.O., É.A.G.

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Additional Files

Add File 1. Total number of data recorded in each analysis.

Analysis	Total number of data
Temporal pattern of number of articles (number of papers)	177
Number of studies by region (number of papers)*	177
Number of studies by Federal Units in Brazil (number of papers)*	177
Freshwater environment (number of papers)*	76
Marine environment (number of papers)*	104
Research actors recorded in the studies (number of papers)*	177
Thematic areas covered in the studies (number of papers)*	177

Add File 2. List of articles included in the systematic review.

Order	Authors	Title	Year of publication	Journal	Doi
1	Alarcon, D. T.; Dâmaso, R. C. S. C.; Schiavetti, A.	Abordagem etnoecológica da pesca e captura de espécies não-alvo em Itacaré, Bahia (Brasil)	2009	Boletim do Instituto de Pesca	
2	Almeida, D. M.; Silva-Oliveira, E. C.; Alves, R. R. N.	Ethnoichthyology of fishermen community from the Praia da Penha, in João Pessoa City, Paraíba, Brazil	2014	Brazilian Journal of Biological Sciences	
3	Almeida, E. D.; Valentini, C. M. A.; De Almeida, J. D.	Aspectos do etnoconhecimento da comunidade de Bom Sucesso-MT, como subsídio para a educação ambiental	2008	Biodiversidade	
4	Almeida, N. J. R.	Etnoconhecimento em unidade de conservação na Amazônia brasileira	2017	Revista Confronteiras	
5	Alves, R. R. N.; Oliveira, T. P. R.; Rosa, I. L.	Wild animals used as food medicine in Brazil	2013	Evidence-Based Complementary and Alternative Medicine	10.1155/2013/670352
6	Andrade, J. N.; Costa Neto, E. M.	Primeiro registro da utilização medicinal de recursos pesqueiros nacidade de São Félix, Estado da Bahia, Brasil	2005	Acta Scientiarum. Biological Sciences	
7	Andreoli, T. B.; Begossi, A.; Clauzet, M.	Etnoecologia de Lutjanidae (vermelhos) em uma comunidade de pescadores artesanais (Bertioga-SP)	2014	Unisanta Bio-Science	

8	Arruda, J. C.; Silva, C. J.; Sander, N. L.; Pulido, M. T.	Conhecimento ecológico tradicional da ictiofauna pelos quilombolas no Alto Guaporé, Mato Grosso, Amazônia meridional, Brasil	2018	Boletim do Museu Paraense Emílio Goeldi	10.1590/1981.81222018000200004
9	Azevedo-Santos, V. M.; Costa-Neto, E. M.; Lima-Stripari, N.	Concepção dos pescadores artesanais que utilizam o reservatório de Furnas, Estado de Minas Gerais, acercados recursos pesqueiros: um estudo etnoictiológico	2010	Revista Biotemas	10.5007/2175-7925.2010v23n4p135
10	Barbosa, H. O.; Souza, M. F.; Ondei, L. S.; Teresa, F. B.	Local ecological knowledge and perception of environmental impacts by dwellwers of the rural zone about stream and fish of the upper Tocantins river basin, Goiás, Brazil	2017	Ethnoscientia	10.22276/ethnoscientia.v2i1.63
11	Barbosa-Filho, M. L. V.; Costa-Neto, E. M.	Conhecimento ecológico local de pescadores artesanais do sul da Bahia, Brasil, sobre as interações tróficas de tubarões	2016	Biotemas	10.5007/2175-7925.2016v29n3p41
12	Barbosa-Filho, M. L. V.; Costa-Neto, E. M.; Siciliano, S.	Knowledge and practices of expert fishermen of south Bahia, Brazil, regarding the international shark fin market	2016	Human Ecology	10.1007/s10745-016-9873-2
13	Barbosa-Filho, M. L. V.; Schiavetti, A.; Alarcon, D. T.; Costa-Neto, E. M.	"Shark is the man!": ethnoknowledge of Brazil's south Bahia fishermen regarding shark behaviors	2014	Journal of Ethnobiology and Ethnomedicine	10.1186/1746-4269-10-54
14	Barbosa-Filho, M. L. V.; Tavares, D. C.; Siciliano, S.; Moura, J. F.; Costa-Neto, E. M.; Motta, F. S.; Koike, C. D. V.	Interactions between whale sharks, Rhincodon typus Smith, 1928 (Orectolobiformes, Rhincodontidae), and Brazilian fisheries: The need for effective conservation measures	2016	Marine Policy	10.1016/j.marpol.2016.08.007
15	Barboza, R. S. L.; Barboza, M. S. L.; Pezzuti, J. C. B.	Aspectos culturais da zooterapia e dieta alimentar de pescadores artesanais do litoral paraense	2014	Fragmentos de Cultura	

16	Barboza, R. S. L.; Pezzuti, J, C. B.	Etnoictiologia dos pescadores artesanais da Resex Marinha Caeté-Taperaçu, Pará: aspectos relacionados com etologia, usos de hábitat e migração de peixes da família Sciaenidae	2011	Sitientibus	
17	Barros, F. B.	Etnoecologia da pesca na Reserva Extrativista Riozinho do Anfrísio-Terra do Meio, Amazônia, Brasil	2012	Amazônica-Revista de Antropologia	
18	Batista, L. P. P.; Botero, J. I. S.; Paula, E. O.; Silva, E. V.	Etnotaxonomia e tabus alimentares dos pescadores artesanais nos açudes Araras e Edson Queiroz, bacia do rio Acaraú, Ceará, Brasil	2016	Revista Entorno Geográfico	
19	Batista, V. S.; Lima, L. G.	In search of traditional bio-ecological knowledge useful for fisheries co-management: the case of jaraquis Semaprochilodus spp. (Characiformes, Prochilodontidae) in central Amazon, Brazil	2010	Journal of Ethnobiology and Ethnomedicine	10.1186/1746-4269-6-15
20	Batistella, A. M.; Castro, C. P.; Vale, J. D.	Conhecimento dos moradores da comunidade de Boas Novas, no lago Janauacá-Amazonas, sobre os hábitos alimentares dos peixes da região	2005	Acta Amazonica	
21	Begossi, A., Clauzet, M.; Figueiredo, J. L.; Garuana, L.; Lima, R. V.; Maccord, P. F.; Ramires, M.; Silva, A. L.; Silvano, R. A. M.	Are biological species and higher-ranking categories real? Fish folk taxonomy on Brazil's atlantic forest coast and in the Amazon	2008	Current Anthropology	10.1086/527437
22	Begossi, A.; Braga, F. M. S.	Food taboos and folk medicine among fishermen from the Tocantins River (Brazil)	1992	Amazoniana	
23	Begossi, A.; Figueiredo, J. L.	Ethnoichthyology of southern coastal fishermen: cases from Búzios Island and Sepetiba bay (Brazil)	1995	Bulletin of Marine Science	

24	Begossi, A.; Garavello, J. C.	Notes on the ethnoicthyology of fishermen from the Tocantins river (Brazil)	1990	Acta Amazonica	
25	Begossi, A.; Hanazaki, N.; Ramos, R. M.	Food chain and the reasons for fish food taboos among amazonian and atlantic forest fishers (Brazil)	2004	Ecological Applications	
26	Begossi, A.; Salivonchyk, S. V.; Araujo, L. G.; Andreoli, T. B.; Clauzet, M.; Martinelli, C. M.; Ferreira, A. G. L.; Oliveira, L. E. C.; Silvano, R. A. M.	Ethnobiology of snappers (Lutjanidae): target species and suggestions for management	2011	Journal of Ethnobiology and Ethnomedicine	10.1186/1746-4269-7-11
27	Begossi, A.; Salivonchyk, S. V.; Hanazaki, N.; Martins, I. M.; Bueloni, F.	Fishers (Paraty, RJ) and fish manipulation time: a variable associated to the choice for consumption and sale	2012	Brazilian Journal of Biology	10.1590/S1519-69842012000500030
28	Begossi, A.; Salivonchyk, S. V.; Lopes, P. F. M.; Silvano, R. A. M.	Fishers' knowledge on the coast of Brazil	2016	Journal of Ethnobiology and Ethnomedicine	10.1186/s13002-016-0091-1
29	Begossi, A.; Salivonchyk, S. V.; Nora, V.; Lopes, P. F.; Silvano, R. A. M.	The paraty artisanal fishery (southeastern Brazilian coast): ethnoecology and management of a social-ecological system (SES)	2012	Journal of Ethnobiology and Ethnomedicine	10.1186/1746-4269-8-22
30	Begossi, A.; Silvano, R. A. M.	Ecology and ethnoecology of dusky grouper (garoupa, Epinephelus marginatus (Lowe, 1834)) along the coast of Brazil	2008	Journal of Ethnobiology and Ethnomedicine	10.1186/1746-4269-4-20

31	Begossi, A.; Silvano, R. A. M.; Amaral, B. D.; Oyakawa, O. T.	Uses of fish and game by inhabitants of an Extractive Reserve (Upper Juruá, Acre, Brazil)	1999	Environment, Deselopment and Sustainability	
32	Bender, M. G.; Floeter, S. R.; Hanazaki, N	Do traditional fishers recognise reef fish species declines? Shifting environmental baselines in Eastern Brazil	2013	Fisheries Management and Ecology	10.1111/fme.12006
33	Bezerra, D. M. M.; Nascimento, D. M.; Ferreira, E. N.; Rocha, P. D.; Mourão, J. S.	Influence of tides and winds on fishing techniques and strategies in the Mamanguape River Estuary, Paraíba state, NE Brazil	2012	Anais da Academia Brasileira de Ciências	
34	Biassi, B. A.; Behr, E. R.; Dellazzana, D. A.; Arocha, N. M.	Análise etnoictiológica da pesca artesanal nas bacias hidrográficas dos rio Uruguai e Jacuí, Rio Grande do Sul, Brasil	2017	Boletim do Instituto de Pesca	10.20950/1678-2305.2017v43n3p358
35	Braga, H. O.; Azeiteiro, U. M.; Oliveira, H. M. F.; Pardal, M. A.	Conserving brazilian sardine: fisher's attitudes and knowledge in the Marine Extractive Reserve of Arraial do Cabo, Rio de Janeiro State, Brazil	2018	Fisheries Research	10.1016/j.fishres.2018.03.019
36	Braga, H. O.; Pardal, M. A.; Cruz, R. C. M.; Alvarenga, T. C.; Azeiteiro, U. M.	Fishers' knowledge in Southeast Brazil: the case study of the Brazilian sardine	2018	Ocean and Coastal Management	10.1016/j.ocecoaman.2018.08.021
37	Braga, T. M. P.; Rebêlo, G. H.	Conhecimento tradicional dos pescadores do baixo rio Juruá: aspectos relacionados aos hábitos alimentares dos peixes da região	2014	Interciencia	
38	Braga, T. M. P.; Rebêlo, G. H.	Traditional Knowledge of the Fishermen of the Lower Juruá River: Understanding the Reproductive Patterns of the Region's Fish Species	2017	Desenvolvimento e Meio Ambiente	10.5380/dma.v40i0.44776
39	Braga, T. M. P.; Silva, A. A.; Rebêlo, G. H.	Preferências e tabus alimentares no consumo de pescado em Santarém, Brasil	2016	Novos Cadernos NAEA	

40	Brandão, F. C.; Silva, L. M. A.	Conhecimento ecológico tradicional dos pescadores da Floresta Nacional do Amapá	2008	Uakari	
41	Brasil, J.; Bastos, F.; Mourão, J. S.	Local ecological knowledge is not a useful source of information concerning impacts caused by non-native Nile tilapia on fishery stocks	2013	Acta Scientiarum. Biological Sciences	10.4025/actascibiolsci.v35i3.18418
42	Burda, C. L.; Schiavetti, A.	Análise ecológica da pesca artesanal em quatro comunidades pesqueiras da costa de Itacaré, Bahia, Brasil: subsídios para a gestão territorial	2008	Revista da Gestão Costeira Integrada	
43	Carneiro, M. A. B.; Farrapeira, C. M. R.; Silva, K. M. E.	O manguezal na visão etnoecológica dos pescadores artesanais do Canal de Santa Cruz, Itapissuma, Pernambuco, Brasil	2008	Biotemas	
44	Carvalho Júnior, J. R.; Carvalho, J. R. S. S. R.; Nunes, J. L. G.; Rocha, R. M.; Nakayama, L.	Os conhecimentos ecológicos dos pescadores Xikrin-Mebêngôkre, Terra Indígena Trincheira Bacajá, Pará, Brasil	2017	Revista Brasileira de Linguística Antropológica	
45	Carvalho Júnior, J. R.; Carvalho, J. R. S. S. R.; Silva, T. R. M.; Barros, F. B.; Nakayama, L.	Entre Mex e P'yn'yre: peixe bom para comer, peixe bom para viver na terra indígena Trincheira Bacajá-PA, povo Xikrin	2015	Revista fsa	10.12819/2015.12.2.4
46	Carvalho Júnior, J. R.; Fonseca, M. J. C.; Santana, A. R.; Nakayama, L.	O conhecimento etnoecológico dos pescadores yudjá, Terra Indígena Paquiçamba, Volta Grande do Rio Xingu, PA	2011	Tellus	
47	Carvalho, A. R.	Conhecimento ecológico tradicional no fragmento da planície de inundação do alto rio Paraná: percepção ecológica dos pescadores	2002	Acta Scientiarum	
48	Carvalho, A. R.	Conhecimento ecológico no "varjão" do alto rio Paraná: alterações antropogênicas expressas na linguagem dos pescadores	2002	Acta Scientiarum	

49	Carvalho, M. M.; Oliveira, M. R.; Lopes, P. F. M.; Oliveira, J. E. L.	Ethnotaxonomy of sharks from tropical waters of Brazil	2018	Journal of Ethnobiology and Ethnomedicine	10.1186/s13002-018-0273-0
50	Castro, V. B.; Barros, F. B.	"Depois da barragem tudo mudou": o drama da pesca e dos pescadores artesanais do médio rio Tocantins.	2015	Revista GeoAmazônia	10.17551/2358-1778/geoamazonia.v3n5p117-140
51	Caló, C. F. F.; Schiavetti, A.; Cetra, M.	Local ecological and taxonomic knowledge of snapper fish (Teleostei: Actinopterygii) held by fishermen in Ilhéus, Bahia, Brazil	2009	Neotropical Ichthyology	
52	Chagas, R. A.; Santos, W. C. R.; Vale, A. V. P.; Sousa, C. R. S.	Conhecimento etnobiológico de pescadores artesanais do município de São João de Pirabas, nordeste do estado do Pará	2015	Educação Ambiental em Ação	10.13140/RG.2.1.1115.4960
53	Clauzet, M.; Ramires, M.; Barrella, W.	Pesca artesanal e conhecimento local de duas populações caiçaras (Enseada do Mar Virado e Barra do Uma) no litoral de São Paulo, Brasil	2005	MultiCiência	
54	Clauzet, M.; Ramires, M.; Begossi, A.	Etnoictiologia dos pescadores artesanais da praia de Guaibim, Valença (BA), Brasil	2007	Neotropical Biology and Conservation	
55	Collier, C. A.; Neto, M. S. A.; Aretakis, G. M. A.; Santos, R. E.;Oliveira, T. H.; Mourão, J.S.; Severi, W.; EL-Deir, A. C. A.	Integrated approach to the understanding of the degradation of an urban river: local perceptions, environmental parameters and geoprocessing	2015	Journal of Ethnobiology and Ethnomedicine	10.1186/s13002-015-0054-y

56	Costa, P. G.; Riva, P. B.; Obara, A. T.; Suzuki, H. I.; Takemoto, R. M.	Saberes etnoecológicos dos pescadores artesanais e alunos da planície alagável do alto rio Paraná	2014	Revista Eletrônica do Mestrado em Educação Ambiental	
57	Costa, T. V.; Silva, R. R. S.; Souza, J. L.; Batalha, O. S.; Hoshiba, M. A.	Aspectos do consumo e comércio de pescado em Parintins	2013	Boletim do Instituto de Pesca	
58	Costa-Neto, E. M.	Sustainable development and traditional knowledge: a case study in a brazilian artisanal fishermen's community	2000	Sustainable Development	
59	Costa-Neto, E. M.	Conhecimento e usos tradicionais de recursos faunísticos por uma comunidade afro-brasileira. Resultados preliminares	2000	Interciencia	
60	Costa-Neto, E. M.	Restrições e preferências alimentares em comunidades de pescadores do município de Conde, Estado da Bahia, Brasil	2000	Revista de Nutrição	
61	Costa-Neto, E. M.; Dias, C. V.; Melo, M. N.	O conhecimento ictiológico tradicional dos pescadores da cidade de Barra, região do médio São Francisco, Estado da Bahia, Brasil	2002	Acta Scientiarum	
62	Costa-Neto, E. M.; Marques, J. G. W.	Etnoictiologia dos pescadores artesanais de Siribinha, município de Conde (Bahia): aspectos relacionados com a etologia dos peixes	2000	Acta Scientiarum	
63	Costa-Neto, E. M.; Marques, J. G. W.	Faunistic resources used as medicines by artisanal fishermen from Siribinha beach, State of Bahia, Brazil	2000	Journal of Ethnobiology	
64	Daaddy, M. D. V.; Santos, C.; Brandão, R. M. L.; Amanajás, R. D.; Ribeiro, A. B. N.	Pesca do apaiari, Astronotus ocellatus (Agassiz, 1831), e perfil socioeconômico dos pescadores artesanais de uma região da Amazônia brasileira	2016	Boletim do Museu Paraense Emílio Goeldi	10.1590/1981.81222016000200002

65	Dantas, J. G.; Andrade, T. S. O. M.; Neta, R. N. F. C.; Junior, A. R. T.	Conhecimento tradicional sobre piracema e defeso da pesca em duas comunidades da área de proteção ambiental da baixada maranhense, Brasil	2017	Atos de Pesquisa em Educação	10.7867/1809-0354.2017v12n3p641-659
66	D'avilla, T.; Gomes, M. V. T.; Brito, M. F. G.	A percepção dos pescadores e a educação ambiental como subsídios para a conservação do Baixo São Francisco	2017	Revista Ecologias Humanas	
67	Doria, C. R. C.; Araújo, T. R.; Souza, S. T. B.; Torrente-Vilara, G.	Contribuição da etnoictiologia à análise da legislação pesqueira referente ao defeso de espécies de peixes de interesse comercial no oeste da Amazônia brasileira, rio Guaporé, Rondônia, Brazil	2008	Biotemas	
68	Doria, C. R. C.; Lima, M. A. L.; Santos, A. R.; Souza, S. T. B.; Simão, M. O. A. R.; Carvalho, A. R.	O uso do conhecimento ecológico tradicional de pescadores no diagnóstico dos recursos pesqueiros em áreas de implantação de grandes empreendimentos	2014	Desenvolvimento e Meio Ambiente	10.5380/dma.v30i0.34196
69	Ferreira, H. M.; Reuss-Strenzel, G. M.; Alves, J. A.; Schiavetti, A.	Local ecological knowledge of the artisanal fishers on Epinephelus itajara (Lichtenstein, 1822) (Teleostei: Epinephelidae) on Ilhéus coast - Bahia state, Brazil	2014	Journal of Ethnobiology and Ethnomedicine	
70	Freitas, F. R.; Sampaio, C. R.; Freitas, H. R.; Bueno, R. S.; Clauzet, M.	O conhecimento ictiológico tradicional e prevenção à saúde dos pescadores do município de Paranaguá-Paraná	2018	Unisanta Bio-Science	
71	Freitas, F. W. S.; Silva, M. R. F.; Guedes, J. A.	Percepção ambiental por pescadores sobre o reservatório Passagem (RN)	2018	Revista GeoInterações	
72	Gama, C. S.	Confirmation of sexual dimorphism in Hoplias aimara (Valenciennes, 1847) (Erythrinidae: Characiformes) proposed by local expertise in Amapá, Brazil	2014	Brazilian Journal of Biology	10.1590/bjb.2014.0076

73	Gerhardinger, L. C.; Hostim-Silva, M.; Medeiros, R. P.; Matarezi, J.; Bertoncini, Á. A.; Freitas, M. O.; Ferreira, B. P.	Fishers' resource mapping and goliath grouper Epinephelus itajara (Serranidae) conservation in Brazil	2009	Neotropical Ichthyology	
74	Gerhardinger, L. C.; Marenzi, R. C.; Bertoncini, Á. A.; Medeiros, P. R.; Hostim-Silva, M.	Local Ecological Knowledge on the Goliath Grouper Epinephelus itajara (Teleostei: Serranidae) in Southern Brazil	2006	Neotropical Ichthyology	
75	Gerhardinger, L. C.; Marenzi, R. C.; Hostim-Silva, M.; Medeiros, P. R.	Conhecimento ecológico local de pescadores da Baía Babitonga, Santa Catarina, Brasil: peixes da família Serranidae e alterações no ambiente marinho	2006	Acta Scientiarum. Biological Sciences	
76	Giglio, V. J.; Bornatowski, H.	Fishers' ecological knowledge of smalleye hammerhead, Sphyrna tudes, in a tropical estuary	2016	Neotropical Ichthyology	10.1590/1982-0224-20150103
77	Hallwass, G.; Lopes, P. F.; Juras, A. A.; Silvano, R. A. M.	Fishers' knowledge identifies environmental changes and fish abundance trends in impounded tropical rivers	2013	Ecological Applications	
78	Hanazaki, N.; Begossi, A.	Does fish still matter? Changes in the diet of two brazilian fishing communities	2003	Ecology of Food and Nutrition	10.1080/03670240390229643
79	Hanazaki, N.; Begossi, A.	Catfish and mullets: the food preferences and taboos of caiçaras (southern atlantic forest coast, Brazil)	2006	Interciencia	
80	Hanazaki, N.; Leitão-Filho, H. F.; Begossi, A.	Uso de recursos na mata atlântica: o caso da Ponta da Almada (Ubatuba, Brasil)	1996	Interciencia	
81	Herbst, D. F.; Hanazaki, N.	Local ecological knowledge of fishers about the life cycle and temporal patterns in the migration of mullet (Mugil liza)in southern Brazil	2014	Neotropical Ichthyology	10.1590/1982-0224-20130156

82	Lima, B. B.; Velasco, G.	Estudo piloto sobre o autoconsumo de pescado entre pescadores artesanais do estuário da Lagoa dos Patos, RS, Brasil	2012	Boletim do Instituto de Pesca	
83	Lima, E. G.; Begossi, A.; Hallwass, G.; Silvano, R. A. M.	Fishers' knowledge indicates short-term temporal changes in the amount and composition of catches in the southwestern atlantic	2016	Marine Policy	10.1016/j.marpol.2016.05.008
84	Lima, F. P.; Latini, A. O.; Júnior, P. M.	How are the lakes? Environmental perception by fishermen and alien fish dispersal in brazilian tropical lakes	2010	Interciencia	
85	Lima, J. S.; Zappes, C. A.; Beneditto, A. P. M.; Zalmon, I. R.	Artisanal fisheries and artificial reefs on the southeast coast of Brazil: contributions to research and management	2018	Ocean e Coastal Management	10.1016/j.oceanaman.2018.07.018
86	Lima, L. G.; Batista, V. S.	Estudos etnoictiológicos sobre o pirarucu Arapaima gigas na Amazônia Central	2012	Acta Amazonica	
87	Lima, M. S. P.; Lins Oliveira, J. E.; Nóbrega, M. F.; Lopes, P. F. M.	The use of local ecological knowledge as a complementary approach to understand the temporal and spatial patterns of fishery resources distribution	2017	Journal of Etnobiology and Ethnomedicine	10.1186/s13002-017-0156-9
88	Lopes, A. F.; Bozelli, R. L.	The ethnoecological knowledge of fishermen form three coastal lagoons in the northern of the State of Rio de Janeiro, Brazil	2014	Biota Neotropica	10.1590/1676-06032014003814
89	Lopes, K.; Queiroz, H. L.	Avaliação do conhecimento tradicional dos pescadores da RDSM aplicado à identificação do sexo de pirarucus	2009	Uakari	
90	Lopes, P. F. M.; Clauzet, M.; Hanazaki, N.; Ramires, M.; Silvano, R. A. M.; Begossi, A.	Foraging behaviour of Brazilian riverine and coastal fishers: how much is explained by the optimal foraging theory?	2011	Conservation and Society	

91	Lopes, P. L. J.; Souza, J. M.	Valor e categorias de uso dos apetrechos de pesca e das etnoespécies de peixes da comunidade de pescadores artesanais de Sacaí, Caracaraí-RR, Brasil	2015	Revista Brasileira de Agroecologia	
92	MacCord, P. L.; Begossi, A.	Dietary changes over time in a Caiçara community from the Brazilian Atlantic Forest	2006	Ecology and Society	
93	Magalhães, S. B.; Silva, Y. Y. P.; Vidal, C. L.	Não há peixe para pescar neste verão: efeitos socioambientais durante a construção de grandes barragens-o caso Belo Monte	2016	Desenvolvimento e Meio Ambiente	10.5380/dma.v37i0.45595
94	Mariz, D.; Souza, A. C. F. F.; Teixeira, S. F.; Campos, S. S.; Lucena, R. F. P.; Alves, R. R. N.	"Todo peixe no mar come e é comido": o discurso do sujeito coletivo sobre o uso de iscas pelos pescadores artesanais marinhos de Recife (Pernambuco, Brasil)	2014	Gaia Scientia	
95	Martins, A. P. B.; Feitosa, L. M.; Lessa, R. P.; Almeida, Z. S.; Heupel, M.; Silva, W. M.; Tchaicka, L.; Nunes, J. L. S.	Analysis of the supply chain and conservation status of sharks (Elasmobranchii: Superorder Selachimorpha) based on fisher knowledge	2018	Plos One	10.1371/journal.pone.0193969
96	Martins, I. M.; Medeiros, R. P.; Domenico, M. D.; Hanazaki, N.	What fishers' local knowledge can reveal about the changes in exploited fish catches	2018	Fisheries Research	10.1016/j.fishres.2017.10.008
97	Massena, F. S.; Ramos, F. L.; Mirotti, P. I.; Trevizan, S. D. P.; Wibelinger, L. M.	Etnoictiológia dos pescadores artesanais da Vila Cachoeira, Ilhéus-BA	2014	Revista Brasileira de Engenharia de Pesca	
98	Medeiros, A. M.; Luiz, O. J.; Domit, C.	Occurrence and use of an estuarine habitat by giant manta ray Manta birostris	2015	Journal of Fish Biology	10.1111/jfb.12667
99	Medeiros, M. C.; Barboza, R. R. D.; Martel, G.; Mourão, J. S.	Combining local fishers' and scientific ecological knowledge: implications for comanagement	2018	Ocean e Coastal Management	10.1016/j.ocecoaman.2018.03.014

100	Moura, F. B. P.; Marques, J. G. W.	O espaço e dinâmica sazonal na percepção de pescadores tradicionais da APA Marimbús - Iraquara, Chapada Diamantina - BA	2006	Geografares
101	Moura, F. B. P.; Marques, J. G. W.	Conhecimento de pescadores tradicionais sobre a dinâmica espaço-temporal de recursos naturais na Chapada Diamantina, Bahia	2007	Biota Neotropica
102	Moura, F. B. P.; Marques, J. G. W.; Nogueira, E. M. S.	"Peixes sabido, que enxerga de longe": conhecimento ictiológico tradicional na Chapada Diamantina, Bahia	2008	Biotemas
103	Mourão, J. S.; Nordi, N.	Etnoictiologia de pescadores artesanais do estuário do rio Mamanguape, Paraíba, Brasil	2003	Boletim do Instituto de Pesca
104	Mourão, J. S.; Nordi, N.	Comparações entre as taxonomias folk e científica para peixes do estuário do rio Mamanguape, Paraíba-Brasil	2002	Interciencia
105	Mourão, J. S.; Nordi, N.	Pescadores, peixes, espaço e tempo: uma abordagem etnoecológica	2006	Interciencia
106	Mourão, J. S.; Nordi, N.	Principais critérios utilizados por pescadores artesanais na taxonomia folk dos peixes do estuário do rio Mamanguape, Paraíba-Brasil	2002	Interciencia
107	Nascimento, G. C. C.; Córdula, E. B. L.; Lucena, R. F. P.; Rosa, R. S.; Mourão, J. S.	Pescadores e "currais": um enfoque etnoecológico	2016	Gaia Scientia 10.21707/gs.v10.n04a09
108	Nascimento, S. F.; Mello, A. H.; Oliveira, G. F.; Pereira, V. D. N.; Mendes, A. S.	Queda da produtividade de pescado no rio Tocantins: a percepção dos pescadores de Marabá-Pará	2011	Agroecossistemas
109	Neves, K. R.; Condini, M. V.; Garcia, A. M.; Botelho, J. G.	A educação ambiental e a extensão na universidade: um breve olhar sobre a garoupa verdadeira (Epinephelus marginatus) e os peixes costeiros no extremo sul do Brasil	2017	Expressa Extensão

110	Nora, V.; Begossi, A.; Mesquita, F.; Clauzet, M.; Rotundo, M.	Aspectos ecológicos e etnoecológicos sobre a composição alimentar de Centropomus undecimalis, Bloch, 1792 (Centropomidae) (robalo) em Paraty, RJ	2012	Unisanta Bio-Science	
111	Nunes, D. M.; Hartz, S. M.; Silvano, R. A. M.	Conhecimento ecológico local e científico sobre os peixes na pesca artesanal no sul do Brasil	2011	Boletim do Instituto de Pesca	
112	Oliveira, A. T.; Lima, E. C.; Paes, L. S.; Santos, S. M.; Araújo, R. L.; Pantoja-Lima, J.; Aride, P. H. R.	Relação entre as populações naturais de arraias de água doce (Myliobatiformes: Potamotrygonidae) e pescadores no baixo rio Juruá, Estado do Amazonas, Brasil	2015	Biota Amazônia	10.18561/2179-5746/biotaamazonia.v5n3p108-111
113	Oliveira, G. Z.; Silva, C. J.	Conhecimento ecológico tradicional de pescadores profissionais sobre peixes da baía Caiçara, Pantanal de Mato Grosso, Cáceres, Brasil	2013	Revista Brasileira de Zoociências	
114	Oliveira, L. E. C.; Barreto, T.; Begossi, A.	Prototypes and Folk taxonomy: artisanal fishers and snappers on the brazilian coast	2012	Current Anthropology	10.1086/667717
115	Oviedo, A. F. P.	Pescadores de Manoel Urbano e a construção de um território de pesca numa perspectiva etnoecológica	2017	Revista Ciências da Sociedade	
116	Palheta, M. K. S.;Canete, V. R.; Cardoso, D. M.	Mulher e mercado: participação e conhecimentos femininos na inserção de novas espécies de pescado no mercado e na dieta alimentar dos pescadores da Resex Mãe Grande em Curuçá (PA)	2016	Boletim do Museu Paraense Emílio Goeldi	10.1590/1981.81222016000300004
117	Paz, V. A.; Begossi, A.	Ethnoichthyology of Galviboa fishermen of Sepetiba bay, Brazil	1996	Journal of Ethnobiology	

118	Pereira, L. J. G.; Fernandes, S. C. P.; Gonçalves, F. M.; Maia, R. C. N.; Barboza, R. S. L.; Silva, B. B.	Conhecimento ecológico local sobre Mero Epinephelus itajara (Lichtenstein, 1822) no Nordeste Paraense Amazônico	2016	Biota Amazônia	10.18561/2179-5746/biotaamazonia.v6n2p110-119
119	Pinheiro, L.	Da ictiologia ao etnoconhecimento: saberes populares, percepção ambiental e senso de conservação em comunidade ribeirinha do rio Piraí, Joinville, Estado de Santa Catarina	2004	Acta Scientiarum	
120	Pinheiro, L.; Cremer, M.	The fishing system of Babitonga bay on the north coast of Santa Catarina, Brazil: an ethnoecological approach	2003	Desenvolvimento e Meio Ambiente	
121	Pinto, M. F.; Mourão, J. S.; Alves, R. R. N.	Ethnotaxonomical considerations and usage of ichthyofauna in a fishing community in Ceará state, Northeast Brazil	2013	Journal of Etnobiology and Ethnomedicine	
122	Pinto, M. F.; Mourão, J. S.; Alves, R. R. N.	Animal source foods consumed in two fishing communities on the northeast coast of Brazil	2017	Environment, Development and Sustainability	10.1007/s10668-016-9758-y
123	Pinto, M. F.; Mourão, J. S.; Alves, R. R. N.	How do artisanal fishermen name fish? na ethnotaxonomic study in Northeastern Brazil	2016	Journal of Ethnobiology	
124	Pinto, M. F.; Mourão, J. S.; Alves, R. R. N.	Use of ichthyofauna by artisanal fishermen at two protected areas along the coast of Northeast Brazil	2015	Journal of Ethnobiology and Ethnomedicine	10.1186/s13002-015-0007-5
125	Porcher, L. C. F.; Poester, G.; Lopes, M.; Schonhofen, P.; Silvano, R. A. M.	Percepção dos moradores sobre os impactos ambientais e as mudanças na pesca em uma lagoa costeira do litoral sul do Brasil	2010	Boletim do Instituto de Pesca	

126	Prado, D. P.; Zeineddine, G. C.; Vieira, M. C.; Barrella, W.; Ramires, M.	Preferências, tabus alimentares e uso medicinal de peixes na Reserva de Desenvolvimento Sustentável Barra do Uma, São Paulo	2017	Ethnoscientia	10.22276/ethnoscientia.v2i1.84
127	Previero, M.; Minte-Vera, C. V.; Moura, R. L.	Fisheries monitoring in Babel: fish ethnotaxonomy in a hotspot of common names	2013	Neotropical Ichthyology	
128	Ramires, M.; Barrella, W.; Esteves, A. M.	Caracterização da pesca artesanal e o conhecimento pesqueiro local no Vale da Ribeira e litoral sul de São Paulo	2012	Revista Ceciliana	
129	Ramires, M.; Clauzet, M.; Barrella, W.; Rotundo, M. M.; Silvano, R. A. M.; Begossi, A.	Fishers' knowledge about fish trophic interactions in the southeastern Brazilian coast	2015	Journal of Ethnobiology and Ethnomedicine	10.1186/s13002-015-0012-8
130	Ramires, M.; Clauzet, M.; Begossi, A.	Folk taxonomy of fishes of artisanal fishermen of Ilhabela (São Paulo/Brazil)	2012	Biota Neotropica	
131	Ramires, M.; Clauzet, M.; Rotundo, M. M.; Begossi, A.	A pesca e os pescadores artesanais de Ilhabela (SP), Brasil	2012	Boletim do Instituto de Pesca	
132	Ramires, M.; Molina, S. M. G.; Hanazaki, N.	Etnoecologia caiçara: o conhecimento dos pescadores artesanais sobre aspectos ecológicos da pesca	2007	Biotemas	
133	Ramires, M.; Rotundo, M. M.; Begossi, A.	The use of fish in Ilhabela (São Paulo/Brazil): preferences, food taboos and medicinal indications	2012	Biota Neotropica	
134	Ramos, P. M. S.; Fraxe, T. J. P.; Silva, S. C. P.; Witkoski, A. C.	Etnoconhecimento de pescadores na Amazônia Central: estudo de três comunidades nos lagos Grande e São Lourenço, Manacapuru (AM)	2007	Revista de Estudos Amazônicos	
135	Rebelo, S. R. M.; Freitas, C. E. C.; Soares, M. G. M.	Fish diet from Manacapuru Big Lake complex (Amazon): a approach starting from the traditional knowledge	2010	Biota Neotropica	

136	Reis-Filho, J. A.; Freitas, R. H. A.; Loiola, M.; Leite, L.; Soeiro, G.; Oliveira, H. H. Q.; Sampaio, C. L. S.; Nunes, J. A. C. C.; Leduc, A. O. H. C.	Traditional fisher perceptions on the regional disappearance of the largetooth sawfish Pristis pristis from the central coast of Brazil	2016	Endangered 10.3354/esr00711 Species Research
137	Reuss-Strenzel, G. M.; Assunção, M. F.	Etnoconhecimento ecológico dos caçadores submarinos de Ilhéus, Bahia, como subsídio à preservação do mero (Epinephelus itajara Lichtenstein, 1822)	2008	Revista da Gestão Costeira Integrada
138	Riva, P. B.; Obara, A. T.; Suzuki, H. I.	Etnosaberes sobre peixes por pescadores e professores da planície de inundação do alto rio Paraná	2014	Investigações em Ensino de Ciências
139	Riva, P. B.; Takahashi, B. T.; Obara, A. T.; Suzuki, H. I.; Ávila, K. P.	Conhecimento etnoictiológico e percepção ambiental de pescadores da região da planície alagável do alto rio Paraná	2010	II Simpósio Nacional de Ensino de Ciência e Tecnologia
140	Rocha, M. S. P.; Mourão, J. S.; Souto, W. M. S.; Barboza, R. R. D.; Alves, R. R. N.	O uso dos recursos pesqueiros no estuário do rio Mamanguape, estado da Paraíba, Brasil	2008	Interciencia
141	Rocha, M. S. P.; Santiago, I. M. F. L.; Cortez, C. S.; Trindade, P. M.; Mourão, J. S.	Use of fishing resources by women in the Mamanguape river estuary, Paraíba state, Brazil	2012	Anais da Academia Brasileira de Ciências

142	Rosa, I. M. L.; Alves, R. R. N.; Bonifácio, K. M.; Mourão, J. S.; Osório, F. M.; Oliveira, T. P. R.; Nottingham, M. C.	Fishers' knowledge and seahorse conservation in Brazil	2005	Journal of Ethnobiology and Ethnomedicine	10.1186/1746-4269-1-12
143	Rosa, R.; Carvalho, A. R.; Angelini, R.	Integrating fishermen knowledge and scientific analysis to assess changes in fish diversity and food web structure	2014	Ocean e Coastal Management	
144	Rossoni, F.; Ferreira, E.; Zuanon, J.	A pesca e o conhecimento ecológico local dos pescadores de acará-disco (Symphysodon aequifasciatus, Pellegrin 1904: Cichlidae) na Reserva de Desenvolvimento Sustentável Piagaçu-Purus, baixo rio Purus, Brasil	2014	Boletim do Museu Paraense Emílio Goeldi	
145	Sampaio, F. A. C.; Juca-Chagas, R.; Teixeira, P. M. M.; Boccardo, L.	Os peixes e a pesca. Concepções de estudantes do povoado Porto Alegre, Bahia, Brasil	2006	Sitientibus	
146	Santos, A. L.; Cunha, F. C.; Soares, M. G. M.; Souza, L. P.; Florentino, A. C.	Conhecimento dos pescadores artesanais sobre a composição da dieta dos pacus (Characiformes: Serrasalmidae) na Floresta Nacional do Amapá, rio Araguari, Amapá, Brasil	2016	Biotemas	10.5007/2175-7925.2016v29n2p101
147	Santos, C. A. B.; Alves, R. R. N.	Ethnoichthyology of the indigenous Truká people, Northeast Brazil	2016	Journal of Etnobiology and Ethnomedicine	10.1186/s13002-015-0076-5
148	Santos, E. C.; Sampaio, C. L. S.	A pesca artesanal na comunidade de Fernão Velho, Maceió (Alagoas, Brasil): de tradicional a marginal	2013	Revista de Gestão Costeira Integrada	10.5894/rgci428
149	Santos, J. M.; Seibert, C. S.; Araújo, G. C.; Bertolin, A. O.; Marques, E. E.	Habitat de arraias em rios e o perigo de acidentes valorado pelo acidentado na bacia Tocantins Araguaia	2014	Scientia Amazonia	

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