LOCAL KNOWLEDGE OF THE AMAZON RIVER DOLPHIN (*INIA GEOFFRENSIS* BLAINVILLE, 1817) IN THE LAKE AMANÃ REGION, AMAZONAS

CONHECIMENTO LOCAL SOBRE O BOTO-VERMELHO (*INIA GEOFFRENSIS* BLAINVILLE, 1817) NA REGIÃO DO LAGO AMANÃ, AMAZONAS

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KEY WORDS:

Cetacean;

Ethnobiology;

Amazon;

Sustainable Development Reserve.

ABSTRACT

Traditional communities possess detailed knowledge about the environment in which they live. Through daily and seasonal observations, information is accumulated over generations. The research that brought about this paper sought to identify the knowledge of Amazonian ribeirinhos with respect to the Amazon river dolphin, a cetacean that lives in rivers in Amazonia. Residents of the area near Lake Amanã, in the Amanã Reserve for Sustainable Development - ARSD, were interviewed. Through partially structured interviews with 19 persons in seven different locations, information was obtained about the Amazon river dolphin's biology and ecology, as well as beliefs associated with this animal. The results show that these communities have broad knowledge about the dolphin and even that regional beliefs influence the relation between residents and the dolphin. It was concluded that the local population holds practical and relevant knowledge about this species, which can be important for scientific research and also for the management of the conservation area.

PALAVRAS - CHAVE:

Cetáceo;

Etnobiologia;

Amazônia;

Reserva de Desenvolvimento Sustentável.

RESUMO

Populações consideradas tradicionais possuem conhecimento detalhado acerca do meio em que vivem. Através de observações diárias e sazonais, informações são acumuladas ao longo de gerações. A pesquisa que gerou este artigo procurou identificar o conhecimento de ribeirinhos amazônicos a respeito do boto-vermelho, cetáceo que vive em rios da Amazônia. Foram entrevistados ribeirinhos residentes na região do lago Amanã, na Reserva de Desenvolvimento Sustentável Amanã - RDSA Através de entrevistas semi-estruturadas, realizadas com dezenove pessoas e em sete localidades diferentes, foram coletadas informações sobre biologia e ecologia do boto-vermelho, bem como crenças associadas ao animal. Os resultados demonstram que os ribeirinhos têm amplo conhecimento sobre o boto-vermelho e, até, que as crenças regionais influenciam a relação entre ribeirinhos e boto-vermelho. Conclui-se que a população estudada detém conhecimentos práticos e relevantes sobre a espécie, que podem ser importantes para a pesquisa científica e ao manejo da unidade de conservação.

INTRODUCTION

Inia geoffrensis (Blainville, 1817) is a cetacean that lives in rivers and lakes in Amazonia. In Brazil it is known as the boto, boto-vermelho, or boto-cor-de-rosa, and the neighboring Amazonian countries also have specific vernacular names. Although the species has long been classified as vulnerable to extinction, existing data about the populations is insufficient to classify the actual degree of threat (IUCN, 2013). Nevertheless, it is known that there are many threats; for example, increased use of fishing nets, environmental degradation, collisions with boats and, most recently, intentional fishing of Amazon river dolphins in order to use them as bait for the Piracatinga catfish *(Calophysus macropterus)* (BEST; SILVA, 1989; ICMBIO, 2011; SILVA, 1990; 2002;).

In any case, it is possible that regional beliefs have conferred some form of protection on these animals over time (BEST; SILVA, 1989; SILVA, 1990). Some populations in Amazonia believe that the Amazon river dolphin has powers enabling it to transform into a human, to sing melodies, and to enchant women (SILVA, 1990; SILVA, 2000; SLATER, 2001). They also believe that the people who respond to its melodies can have nervous disorders and that the life of a person who kills a river dolphin could be ruined with misfortunes (SILVA, 1990). In this way, the low level of exploitation of the Amazon river dolphin in the past could be associated with the fact that people believe that the river dolphins have free will and are capable of taking revenge on their predators (BEST; SILVA, 1989; SILVA, 2002; SILVA et al., 2008; LEATHERWOOD; REEVES, 2003; SILVA, 2000).

River dolphins interact with fishing throughout Amazonia, and reports indicate that the relationships between fishermen and Amazon river dolphins are conflicted, as the river dolphin steals fish and causes damage to fishing equipment. This relationship can be considered one of the causes of mortality for these animals, which often become caught in fishing nets and drown (ALIAGA-ROSSEL, 2003; BEST; SILVA, 1989; SILVA, 2002). Use of dolphin meat as a protein source is not widespread in the region, possibly due to the abundance of fish there, as well as the regional beliefs mentioned above. Apparently, there has been an increase in mortality of river dolphins in the last two decades in the state of Amazonas, which can be related to the population's changing habits, as many residents have come from other regions (SILVA et al., 2008).

Peoples and Traditional Communities are defined by Decree nº 6,040 of February 7, 2007, as "groups which are culturally differentiated and recognize themselves as such, have their own forms of social organization, which occupy and use land and natural resources as a condition of their cultural, social, religious, ancestral, and economic reproduction, utilizing knowledge, innovations, and practices generated and transmitted by tradition".

Knowledge about the environment is obtained through observations made in the present and those obtained in the past, stored in the memory of generations (ALENCAR, 2004). The observations and experimentations of traditional populations lead to the production of information and detailed classifications about the environment, of a set of knowledge which is molded and reconstructed over time and by many generations (CUNHA, 1999). The set of knowledge, perceptions, and experimental practices are also known as the "ecological culture" of traditional populations (LIMA; POZZOBON, 2005).

Among so many observations and visions of the world which are specific to each group, allowing it to occupy, use, and mold the land an understanding of the environment is also generated, which would be comparable to the scientific knowledge of ecology (DIEGUES, 2000; LIMA; POZZOBON, 2005; MARQUES, 2001). Ethnobiology and ethnoecology are disciplines dedicated to understanding how different groups perceive and utilize the natural resources of the environment in which they live (BERLIN, 1992). Information about the environment and species are obtained through these studies and can contribute to the management of conservation units and of their biodiversity (BEGOSSI, 1993).

This article is a record of the local knowledge associated with the river dolphin in the Lake Amanã region, discussing information that the residents possess about the biology and ecology of the Amazon river dolphin, seeking to understand how the beliefs which are disseminated throughout the region can affect the relationship between ribeirinhos and the river dolphin.

MATERIAL AND METHODS

Area of study

The study was conducted in the Amanã Sustainable Development Reserve in the state of Amazonas. With approximately 2,313,000 hectares, the reserve is located between the Mamirauá Sustainable Development Reserve and Jaú National Park. Together, these three conservation units form an important ecological corridor in central Amazonia (IPAAM, 1998; QUEIROZ, 2005).

Lake Amanã is located in a region which possesses samples of dryland forest, várzea, a small strip of igapó forest along its shores, and small areas of campinarana (QUEIROZ, 2005). The variation in water level is an important aspect throughout Amazonia. In the Lake Amanã region, water level varies an average of 8 meters between the dry season and the rainy season, with peaks in June and October, respectively, as the rainy season is longer than the dry season (CALVIMONTES, 2009).

Management of the Amanã Sustainable Development Reserve follows the legal principles of this category of conservation unit and, as such, allows the traditional local population to live in the area and participate in the management of natural resources (IPAAM, 1998). With a relatively low population density, the *ribeirinha* population is around 3,351 inhabitants, composed of Amazonian caboclos and arigós (people from the Northeast who migrated to the region at the beginning of the 20th century) (ALENCAR, 2010; CALVIMONTES, 2009; NASCIMENTO, 2012; QUEIROZ, 2005). The political organization of the resident populations began in the 1970s through the church, which encouraged the formation of community leadership and the creation of organized settlements which later came to be known as "communities" (AGUIAR, 2005; ALENCAR, 2010). Their main subsistence activity is agriculture, followed by hunting, fishing, and extractive activities (PEREIRA et al., 2006).

The populations included in this study are located on the shores of Lake Amanã. The lake, which is 45 km long and up to 3 km across, has an approximately southeast-to-northwest orientation. At the lake's source (in the North), representatives of the Santa Luzia do Baré, Boa Esperança, Bom Jesus do Baré, and Ubim communities were interviewed. At the lake's outflow (to the South), the locales of Santo Estêvão, Vila Nova, and Belo Monte were selected.

Procedures

The study was conducted between the months of July and December, 2009. The first visits to the communities were made in July and August in order to get to know the residents and to establish a relationship of trust, explain the objective of the research, and to reassure them that the project was in no way connected to any enforcement efforts.

The following months in the field were dedicated to interviews based on a partially-structured script. The script was composed of items related to the biology and ecology of the Amazon river dolphin, and beliefs spontaneously mentioned by the interviewees were also recorded. The script was used to guide the interview at those times when some items about biology and ecology were not discussed in the flow of conversation. The interviews were recorded with a hand recorder and with previous permission from each interviewee. The interview method can cause mistrust in the interviewees when the recorder and camera are used, and can consequently influence data collection (VIETLER, 2002). Therefore, it is important to establish a relationship of trust before conducting the interviews. It is believed that this step was essential for the ribeirinhos interviewed to, shortly afterward, feel at ease sharing their knowledge in front of a recorder.

Nineteen residents, both men and women above twenty years of age, were interviewed, with no preference for specific class, whether they worked in fishing or agriculture. The interviewees spontaneously recommended other residents who had knowledge and stories related to the animal, and in this way the study sample was selected.

The information about the biology and ecology of the Amazon river dolphin obtained during the interviews was analyzed and compared with information available in scientific literature. This comparison was not intended to judge what knowledge was right or wrong, but instead to present information about the biology and ecology of the Amazon river dolphin through different lenses. By recording beliefs, we sought to understand how these populations relate to the river dolphin.

RESULTS

Knowledge about the biology and ecology of the Amazon river dolphin

The ribeirinhos distinguish, by coloration and body type, more than one type of cetacean in the Lake Amanã region. For 74% of the interviewees (14 people of the total of 19), there are three types: the Amazon river dolphin (*boto-vermelho)*, the *boto-roxo,* and the tucuxi *(Sotalia fluviatilis)*. Two types, the Amazon river dolphin and the tucuxi*,* are recognized by 21% (4/19) of the interviewees. Only 5% (1/19) allow the existence of more than three types of cetacean, identified by the graduation of purple color. Those who recognize three morphotypes note that the *boto-roxo* is the same as the Amazon river dolphin with regards to body shape; however, its color is more similar to that of the tucuxi.

With regards to habitat, all the interviewees affirmed that the Amazon river dolphin lives in lakes, paranãs (canals that link two rivers), igarapés (narrow canals) and igapós (areas of forest that flood during the rainy season). During the dry season, the Amazon river dolphins live in deeper environments (lakes), as the other aquatic environments become very shallow, making it difficult for the animals to move from place to place. Furthermore, 10% (2/19) of the interviewees stated that it is possible to find Amazon river

dolphins living in ponds that exist in the igarapés during the dry season.

The Amazon river dolphin lives in groups of two, three, or more individuals according to all the interviewees, and it is very difficult to glimpse one alone (according to 31% of the interviewees). However, for 10% of the interviewees (2/19), these animals can live alone.

The interviewees compared the river dolphin with the manatee; however, they differentiate them morphologically, noting that the Amazon river dolphin has only one breathing orifice located on top of its head. The sniff (esturro) is the moment when the animal rises to the surface to breathe, affirm 95% of the interviewees (18/19). Only one of the interviewees made no comment about the animal's respiration or sniffing.

The reproductive period is known locally as vadia, when many male river dolphins become beastly (abestados, or actively courting) around a single female, according to 74% of interviewees (14/19). The river dolphin's gestation is considered by 26% of interviewees (5/19) to be the same as that of the manatee, 63% of interviewees (12/19) attest that "the female dolphin carries her baby in her belly", and 10% of interviewees (2/19) did not comment about gestation. The female dolphin has only one calf per gestation according to 31% of the interviewees (6/19) and, according to 9 interviewees (47%), she has the same number of young as the manatee. The remainder of the interviewees (4/19) did not have an opinion about the number of offspring.

Regarding feeding habits, all the interviewees affirmed that the river dolphin is an animal that feeds on fish at any time of the day. Part of the community members (47.3%; 9/19) also said that the river dolphin feeds on mother's milk as a calf, while 31% of the interviewees (6/19) stated that it has the same habits as manatee calves; four interviewees did not have opinions (21%).

For all interviewees, the river dolphin negatively impacts fishing, as the animal competes with the ribeirinhos for food by taking fish out of the fishing nets malhadeira and even ruining the fishing equipment. Its noise and movement when it swims close to a canoe (rebojar) drives away the fish that the fisherman wants to spear, according to all interviewees.

Enchanted animals

Children, youths and adults fear the river dolphin, as they believe that some of these animals can be bewitched. According to residents, the river dolphin likes to scare or do ill (malinar) to the ribeirinhos; it follows boats and makes surface noises near canoes, scaring them as they navigate lakes, rivers, paranãs, igarapés and igapós. To scare away the river dolphins from the boats, the residents say that one need only throw a bit of cassava flour into the water, or else use a red cloth to stop it from "pursuing" the boat.

According to reports, the Amazon river dolphin can pursue a person, enchant them, and bring them under the water to the bottom; when pursued, the person enters a lethargic state "abestada". There even is an enchanted city of the dolphins, said to be very beautiful, which is located underwater. They say that a healer who lives in the region regularly visits the city and says that he is able to bring those who are brave enough to visit it, but he warns the visitors that within this city one cannot eat any of the food offered, because the person could become bewitched and never again return to dry land.

The interviewees related that the spirits of the Amazon river dolphin haunt the living. These

spirits pursue some people in order to use their bodies, which they call equipment (aparelho). Generally these people are beset with malaise and a strong headache. If a person kills an Amazon river dolphin and it is enchanted, the interviewees believe it is probable that these same ills will befall that person.

To cure those who are pursued by the spirits of enchanted river dolphins, or those who suffer the consequences of having killed one, it is necessary for a *rezador* or a person considered capable of receiving spirits in his body (curador que pegue cabocos) pray on them and for them. The work of the healer to help these people generally involves the use of alcoholic spirits, tobacco, and baths using plants.

Some ribeirinhos report that the Amazon river dolphin transforms itself into a tall white man who wears a hat and likes to drink cachaça, goes onto dry land, and seduces women. Community members interviewed say that it is common to hear large canoes with many people (canoada de gente) on Lake Amanã, and to hear laughter, but to look around and see only dolphins floating.

Because they fear the ills that befall those who kill the river dolphin and because it is considered to be smelly and nauseating (pitiú), the Amazon river dolphin is not used as a food resource by residents of the Lake Amanã region.

On the other hand, the reproductive organ of the male Amazon river dolphin can be used to cure heart disease and diseases afflicting children, according to one of the interviewees. However, in the region of Lake Amanã, the residents state that they do not habitually kill these animals, not even to exploit the sacred parts of their bodies and use them for this function.

In the water, the ribeirinhos do not distinguish male and female dolphins; however, out of the water, they say that the body of the female is the same as the body of a woman. Interviewees state that some men feel sexually stimulated by the female dolphin and there are reports that they may even kill a female animal to have sexual relations with it.

The ribeirinhos recognize that the Amazon river dolphin is a friend of the manatee. They say that the river dolphin warns the manatee when a fisherman is preparing to hunt it, and when it hears the dolphin's message, the manatee flees.

DISCUSSION

Three types of cetaceans are identified in the region of Lake Amanã: the pink Amazon river dolphin the boto-vermelho, the boto-roxo, and the tucuxi. The boto-roxo is similar to the boto-vermelho in shape, but its color is more similar to that of the tucuxi. According to literature, two types of cetaceans inhabit the rivers in the Amazon basin: the tucuxi (*Sotalia fluviatilis*) and the Amazon river dolphin or boto-vermelho (*Inia geoffrensis*) (ALIAGA-ROSSEL, 2003; BEST; SILVA, 1989; SILVA et al., 2008; LEATHERWOOD; REEVES, 2003). In their daily observations, the residents divide *Inia geoffrensis* into two different types of animals, the boto-roxo and the boto-vermelho, probably because this species undergoes gradual changes in the color pattern of its body throughout its lifespan. In the state of Pará, young ribeirinhos also classify river dolphins by their body coloration (RODRIGUES; SILVA, 2012). The color variation in *Inia geoffrensis* can be related to various factors, such as age, sex, water temperature, and geographical location (BEST; SILVA, 1989). Fetuses, newborns, and young animals are dark grey; subadults exhibit an intermediate coloration between gray and pink, while adults are completely pink (SILVA et al., 2008).

In the Lake Amanã region, the environment used by the river dolphin is determined by the flood cycle and consequently by the availability of food. Knowledge from the local population as well as science indicates that, during the dry season, the animals concentrate in the lake or along the deep river channels. In the flood period, the Amazon river dolphins live in flooded plains, floodable forests igapós, igarapés and paranãs (MARTIN; SILVA, 2004). Unlike the Amazon river dolphin, the tucuxi does not use the igapó as a habitat. According to literature, the Amazon river dolphin possesses anatomical characteristics which allow it to maneuver and avoid the vegetation in the igapó while searching for food, characteristics that are absent in the tucuxi (BEST; SILVA, 1989; SILVA et al, 2008).

For the ribeirinhos, the river dolphin lives in groups of two, three, or more animals, or in large groups during the breeding season; rarely are they observed alone. According to literature, in Colombia and Peru, the majority of the animals sighted were solitary, and when groups were seen, they had two, four, or more individuals (BEST; DA SILVA, 1989; SILVA et al., 2008). However, in Venezuela, 60% of the river dolphins were seen in groups of two or more individuals. As a general rule, literature indicates that 60% to 80% of the river dolphins sighted are solitary, and 12% to 26% are observed in pairs (SILVA et al., 2008).

Through their daily observations, the *ribeirinhos* know that the Amazon river dolphin is a large animal. These animals are observed when they surface or when they become caught in fishing nets. According to literature, the males can reach 255 cm, and the females 196 cm (BEST; SILVA, 1989).

Biological characteristics, such as breathing and reproduction, are compared between the river dolphin and the manatee. Local residents' knowledge about the biological characteristics of the manatee can be explained by the history of hunting the animal in the region, as well as by involvement with the Amazon Manatee Project since the 1980s. This comparison confirms the observational capacity of these fishermen, which potentially could be associated with the hunting of these mammals in the past or even by continuing this practice, although on a smaller scale today.

For the ribeirinhos, the Amazon river dolphin breathes when it emerges at the surface, in the same way as the manatee. The cetaceans' nostrils are located dorsally, which allows them to breathe easily while swimming (REYNOLDS et al., 2000, apud BAREZANI, 2005).

The interviewers note many male river dolphins surrounding a female during the reproductive period. They compare gestation and suckling of young between the female river dolphin and the female manatee, and observe that there is parenting behavior. Along the same lines, Best and Silva (1989) affirm that groups of dolphins can be observed at riverbends in order to mate. There is the hypothesis that the river dolphin is polygynic or promiscuous, which was based on the relatively small size of the testicle, lack of evident sexual dimorphism, male disputes over females in estrus, and the significant difference between the size and robustness of the body and the cranium; males reach sexual maturity later than females (SILVA, 2002; SILVA et al., 2008).

Gestation lasts from ten to eleven months, and the females give birth to only one calf. Lactation can last more than two years, suggesting that the interval between births is at least three years (SILVA, 2002; SILVA et al., 2008).

The river dolphin utilizes more than 40 species of fish, turtles, and crabs as food sources (SILVA

et al., 2008). During the flood season, the river dolphins enter the igapó in search of food and, during the dry season, they follow migratory schools of characids and catfish (SILVA et al., 2008). In the region of this study, during the dry season, the dolphins remain in the deeper region, Lake Amanã. There are reports that fishermen use the Amazon river dolphin as indicators of where there are fish (SILVA et al., 2008), although this information was not obtained during the study of the ribeirinhos of the Amanã region.

Inquiries are conducted about how traditional populations hold so much knowledge about a species which is devoid of economic or medicinal value for them (BEGOSSI, 1993; OLIVEIRA; MONTEIRO-FILHO, 2006). Nevertheless, it is important to stress that, in both primitive as well as modern populations, the way of understanding, generating thoughts, and obtaining information is organized by the same cognitive functions. Whether they are scientific or empirical, the knowledge is not limited to classifying and understanding only what is useful (LEVI-STRAUSS, 1962). It is possible that broad knowledge of the reproductive biology of the Amazon river dolphin is related to a set of beliefs, including those related to sexual interactions between Amazon river dolphins and ribeirinhos (SILVA, 2000).

The conflicted relationship between ribeirinhos and the Amazon river dolphin could be justified by some factors. The river dolphin feeds on fish that are caught with nets, destroys fishing equipment, and also scares away the fishermen's catch (manatee or pirarucu). When this animal is caught in fishing nets, it can drown or even be intentionally killed by the fishermen.

Natural death of Amazon river dolphins is not widely known and the most commonly registered mortality in the rivers of Amazonia is related to fishing (SILVA et al., 2008). Accidents in which dolphins become entangled in fishing equipment are registered in the region, but apparently they are more frequent with Amazon river dolphins than with tucuxis (BRUM, 2011). Information about the release of Amazon river dolphins from fishing nets by fishermen was registered in the Brazilian Amazon (BEST; SILVA, 1989) and the Peruvian Amazon (LEATHERWOOD; REEVES 2003). However, in Peru, this fact was observed more frequently in relation to the tucuxi than with the Amazon river dolphin (LEATHERWOOD; REEVES, 2003).

A study conducted in the Mamirauá and Amanã Reserves reveals that dolphins (*Inia geoffrensis, Sotalia fluviatilis*) were freed from fishing nets by fishermen, but Amazon river dolphins can be killed and used as bait for piracatinga (IRIARTE; MARMONTEL, 2012). To sustain fishing of piracatinga in the Tefé region, it is estimated that around 170 dolphins are killed every year (BRUM, 2011). Fishing piracatinga, a fish which is not commonly consumed in Brazil but is widely sold in Colombia, can currently be considered the principal threat to the species (BRUM, 2011; IRIARTE; MARMONTEL, 2012). At the time that this study was conducted, dolphin meat for fishing piracatinga was not sold by the residents of Lake Amanã, due to the difficulty of harpooning Amazon river dolphins and also because the region is far from Tefé, which makes sales more difficult.

The interviewees of Amanã do not habitually capture these animals and also do not use Amazon river dolphin body parts for their own benefit. Only the penis of the animal was cited by a single interviewee as a remedy for heart diseases and children's illnesses. However, dried organs, such as the vulva and the eyes, were widely sold in the past in Peru, and even in France and Spain, because

of the belief that they possess powers related to love (BEST; SILVA 1989; LEATHERWOOD; REEVES, 2003). However, there is no information about how extensive this practice is in the present day (ICMBIO, 2011), and a recent study indicates that part of these love amulets sold commercially in Belém are domesticated pig eyes and not from *Inia geoffrensi*.; It is possible that this practice does not represent a potential threat to the species (SILVA et al, 2008; ICMBIO, 2011).

Stories about the Amazon river dolphin are very present in the everyday life of ribeirinhos in Amanã. By doing ill to residents and seducing women, the relationship between the residents and the animal becomes more conflicted. The belief that bewitched Amazon river dolphins pursue some people, with the intention of their spirits using the people's bodies, intensifies the residents' fear of these animals. Throughout Amazonia, the belief that the Amazon river dolphin is charming, cunning, and capable of transforming into humans is widespread. But also, a connotation of fear, awe, and risk is associated with the animal's image (LEATHERWOOD; REEVES, 2003). However, believing that harm, illness, and headache may befall person who kills an Amazon river dolphin can extend a certain protection to these animals, as stated by an interviewee in this study and also mentioned by other authors (SILVA, 2002; SILVA et al, 2008).

Although the beliefs associated with the Amazon river dolphin confer some protection on this species, during this survey three Amazon river dolphins were found dead in the region of Lake Amanã. Apparently, two died naturally and the third, probably after becoming entangled in a fishing net, suffered machete blows in the head region. It is clear that there is a significant interval of time between information in literature and that presented by this study, which can be reflected in differences related to the information about accidental and intentional death of this species (BRUM, 2011; IRIARTE; MARMONTEL, 2012; LEATHERWOOD; REEVES, 2003). In any case, it seems conflicting for a population with so many beliefs to run the risk of killing a being which would bewitch or have a spiritual effect on the fishermen. Perhaps those who intentionally kill the river dolphin do not really believe the legends. In the lower Rio Negro, Barezani (2005) observed that youth do not hold the same beliefs as their predecessors, possibly due to the fact that cetacean-watching tourism has increased in the region, as well as from receiving diverse information in school and from television which could be related to the demystification of the animal's powers.

CONCLUSION

Studies of ethnobiology generate precise information about how man perceives and relates to the environment or a species, which can assist in conducting scientific studies and even in managing conservation units.

The ribeirinhos in the Lake Amanã region acquired ample knowledge with respect to the biology of the Amazon river dolphin, despite the fact that for them, this is not a species of interest for economic, medicinal, or food purposes. This register of local knowledge can be useful in outlining educational activities associated with the conservation of the species in the ASDR.

The ribeirinhos interviewed believe that some river dolphins are enchanted beings with free will and supernatural powers. At some level, these beliefs influence determined choices or behaviors of the ribeirinhos living in the Lake Amanã region.

ACKNOWLEDGEMENTS

We wish to thank all who contributed to the execution of this research. Thanks to the Mamirauá Sustainable Development Institute for financial and logistical support.

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Received: Feb. / 2013
Accepted: June / 2013