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The ethnocategory "insect" in the conception of the inhabitants of Tapera County, São Gonçalo dos Campos, Bahia, Brazil

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ABSTRACT

This article deals with the construction of the "insect" ethnozoological dominium by the inhabitants of Tapera County, which is located in the municipality of São Gonçalo dos Campos, Bahia State. Data were obtained from March to May 2005 through open-ended interviews carried out with 23 men and 8 women, whose ages ranged from 6 to 66 years old. Interviewees were asked about how they perceived and defined the animals considered as "insects", which types they knew, and if they used them as food resource. Most of the interviews were tape-recorded, and semi-literal transcriptions are kept at the Ethnobiology Laboratoty of the Universidade Estadual de Feira de Santana. Considering the ethnozoological classification system of the inhabitants of Tapera, the term "insect" is a broad semantic category that brings together animals of different and not systematically related taxonomic groups. Apparently, these animals are culturally perceived and categorized as "insects" because they are usually considered as noxious, disgusting, and disease carrier creatures. True insects can be excluded from this ethnocategory due to the perception people have that such animals do not cause "injuries" or because they are useful. Perceptions toward these animals imply ambiguous behavior and feelings, which range from more positive attitudes (conservative) to more negative (destructive).

Key words: ethnoentomology, perception, traditional knowledge, insects.

INTRODUCTION

In millions of years of evolution, insects have developed an extraordinary adaptive capacity in almost every terrestrial ecosystem (with exception of the sea) by comprising about 75% of the living organisms on the planet (Borror and DeLong 1969). These animals play important ecological functions, such as recycling nutrients, pollination of flowering plants, maintenance of the soil structure and fertility, control of other organism populations, direct source of food for several animal species, biological control of plagues and weeds (Borror and DeLong 1969, Morris et al. 1991, Storer et al. 1995, Fisher 1998).

Insects are also very important in the social-cultural life of human beings. From an anthropocentrical point of view, the sociological impacts insects have done and continue to do in our lives can be observed in different areas: oral and written literature; food; medicine; plastic and graphical art; religion and mythology; entertainment (music, dance, theater, movies etc.); eroticism; economics etc. (Southwood 1977, Posey 1987, Lenko and Papavero 1996, Costa Neto 2002). Some of these sociological impacts originated millions of years ago. Since some arthropods threaten human health as well as crop productivity, thus competing directly with man for food and space, it is not surprising that several species have occupied a remarkable place in the organizational structure of different human communities, be it in their beliefs, economy or material culture (Posey 1986).

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Popularly, insects are judged as disgusting, repulsive, dangerous and even useless creatures (Silva and Costa Neto 2004). By being contrary to the academic concept, most human cultures perceive and put together in the same classificatory category both the real insects and the non-insect animals such as rats, bats, lizards, serpents, toads, slugs, earthworms, scorpions, spiders, and others (Brown 1979, Posey 1983, Ribeiro and Marçal Júnior 1996, Laurent 1997, Costa Neto and Pacheco 2004). The construction of the ethnozoological dominium "insect" was explained by means of the entomoprojective ambivalence hypothesis. According to it, human beings have a tendency to project attitudes of disgust, fear, and disdain on those animals associated to the culturally determined "insect" group (Costa Neto 1999, 2000). Projection results from the psychological process by which someone attributes the reasons of his own conflict to another being or an object. And ambivalence results from the attitudes that oscillate between several and, sometimes, opposing values.

As Greene (1998) stresses out, classificatory categories are linguistic constructions that a given culture uses in order to arrange its universe, and thus organize the collective perceptions, and the relationships of the elements with the phenomena. The conception of "insect" is closely related to the cultural aspects which are characteristic of each people. These cultural boundaries determine the way people will perceive, classify and relate with those animals considered as "insects". For this reason, the organisms included in the "insect" category can even be looked at as a representational category since they become metaphorical realizations of other beings and their qualities (Greene 1998). For instance, the Mofu people from the Northeast Cameroon, Africa usually project their own political and social behavior on living beings of their environment, especially ants and termites (Seignobos et al. 1996). There is an ant known as *jaglavak* (*Dorylus* sp.) that is considered as the Prince of the insects and is posed on the top of the entomofauna hierarchy. When a Mofu finds it, his behavior is one of respect and fear; generally he greets it by snapping his fingers, calling it as *bi* (chief) or *bi erlam* (god), while he stoops and touches on his chest.

The way human cultures perceive, classify, and use insects is studied through Ethnoentomology. Paraphrasing Berlin (1992), ethnoentomology can be defined as the field that investigates the complex set of interactions that both ancient and present human societies maintain with insects in a broader sense. This scientific field has already proved to be useful in different areas, such as research and evaluation of environmental impacts, resource management, and sustainable development (Costa Neto 2002). For example, Fairhead and Leach (1999) have provided an eloquent example of how the knowledge about termite ecology in Western Africa helps local communities to improve soil quality, manage aquatic resources, and increase agricultural production. Communities that have traditional agriculture systems usually retain more refined knowledge about those insect species present in the most important crops. Thus, agricultural ethnoentomological studies are significant for communitarian development, since traditional knowledge about the life cycle of those insects considered as pests, as well as their niche and the exact moment to combat them may bring ecologically sustained solutions for biological control (Costa Neto 2002).

Considering an ethnoentomological perspective, this article will discuss how the inhabitants of Tapera County, which is located in the dry land region of Bahia State, perceive, classify, and use animals locally taken into account as "insects".

STUDY AREA

The county of Tapera belongs to the municipality of São Gonçalo dos Campos, which is located in an area known as Paraguaçu Region in the state of Bahia, between 12° South and 39° West (Centro de Estatística e Informações 1994). According to the estimates of the 2000 census, the population of São Gonçalo dos Campos is approximately of 28,699 inhabitants, who are distributed in an area of 249 Km^2. The mean demographic density is about 94.68 inhabitants per Km^2 (Centro de Estatística e Informações 1994).

The population of the county of Tapera is comprised basically by mulatos and afro-descendents. Most of the people are illiterate, but children and adolescents go to public schools near the county.

The climate in Tapera varies from dry to sub-humid. That along with the annual mean temperature of 24.3°C and its location have defined agriculture as the main

source of local income, with a great variety of crops such as corn (*Zea mays* L.), beans (*Phaseolus vulgaris* L.), and tobacco (*Nicotiana tabacum* L.).

MATERIALS AND METHODS

Fieldwork was carried out by the second author from March to May 2005 as part of his activities as volunteer apprentice at the Ethnobiology Laboratory of the Universidade Estadual de Feira de Santana (UEFS). A total of eight visits were performed.

Semi-structured interviews were conducted based on the generating data method (Posey 1987). People of both genders (23 men and 8 women) were interviewed. Their ages ranged from 6 to 66 years old. These were midwives, students, small farmers, and bar owners. All of them belong to the rural population. The objectives of the study were explained clearly in the beginning of each new interview, and people were asked to take part in the survey. Both individual and collective interviews were done to search for the native impressions about "insects". Interviewees were asked about how they perceived and defined the animals considered as "insects", which types they knew, and if they used them as food resource. Most of the interviews were recorded in micro tapes and semi-literal transcriptions are deposited at the Laboratory of Ethnobiology of UEFS.

People were asked to collect some specimens of "insects", if they agreed of course. These specimens were put in glass jars filled with 70% alcohol. Their content was checked by the researcher in the next trip, who then noted down the common names, the local impressions on the animals, and their uses. Projective tests were done along with the interviews, when schematic drawings of five different insects (a fly, a walking stick, an assassin bug, and a cicada) were showed to the people who were asked to identify and give names to the external corporal parts of these arthropods.

All ethnographic material (filed notes, transcriptions, and drawings of true insects) is kept at the Ethnobiology Laboratory of UEFS. The collected specimens were sent to the zoological collections (Entomology, Herpetology) of this university.

Data were analyzed using the union model (Marques 1991 cited in Costa Neto 2004). According to this model, all available information on the surveyed subject is to be considered. Controls were done through the reply validity tests by making use of repeated inquiries in synchronic and diachronic conditions (Marques 1991 cited in Costa Neto 2004). The former occurred when the same question was asked to different people in very close times, and the latter occurred when the same question was asked to the same person in different moments.

RESULTS AND DISCUSSION

Considering the ethnozoological classification system of the inhabitants of Tapera, the term "insect" is a broad semantic category that brings together animals of different taxonomic groups, such as fly, cockroach, dog, snake, butterfly, rat, bat, toad, chameleon, centipede, earthworm, scorpion, bee, caterpillar etc. (Table I). Apparently, these animals are culturally perceived and categorized as "insects" because they are usually considered as noxious, disgusting, and disease carrier creatures, as it is well evident in the following testimonies:

> "A bug of this kind rests on the food, spoils all the food, does not it? And then goes on! This other here is venomous" (Mr. A., 47 years old).

> "Ave Mary! They there and I here! Snake, spider, I am afraid of" (Mrs. J., 44 years old).

> "Insect, to me, is a contagious animal" (Mrs. R., 23 years old).

> "To me it is a filthy, a rubbish" (Mrs. V., 42 years old).

It is interesting to note that sometimes even the true insects are excluded from the ethnocategory due to the perception people have that such animals do not cause "injuries" or because they are useful ("It is a cicada! It is really a cicada! It is not an insect. It does not harm", Mrs. M.I., 63 years old). This kind of ethnobiological classificatory structure is very common worldwide. For example, the Pankararé Indians from the northeastern of Bahia State classify social wasps and bees in the same group locally labeled as "abeia". The other kinds of wasps and bees are excluded from "abeia" and then categorized as "insects" together with snakes and other organisms (Costa Neto 1998).

TABLE I

Kinds of "insects" cited by the inhabitants of Tapera (March-May 2005).

Common name	English name	Taxonomy
Aranha	Spider	Aranaea
	Cockroach	*Periplaneta Americana* L.
		Blaberus sp.
Besouro	Beetle	Scarabaeidae 1
		Scarabaeidae 2
		Scarabaeidae 3
		Scarabaeidae 4
		Elateridae
		Tenebrionidae
		Curculionidae
		Carabidae
		Reduviidae*
		Belastomatidae*
Borboleta	Butterfly	Nymphalidae
		Lepidoptera 1
		Lepidoptera 2
Briba-de-parede/ Lagartixa	Gecko	Squamata, Lacertilia
Camaleão	Chameleon	Squamata, Lacertilia
Caranguejeira	Bird spider	Theraphosidae
Cobra	Snake	Squamata, Ophidia
Cigarra	Cicada	Cicadidae
Embuá	Millipede	Diplopoda
Formiga-tanajura	Ant	Formicidae
Gafanhoto	Grasshopper	Orthoptera
Grilo	Cricket	Gryllidae
		Gryllotalpidae
Lacraia		Dermaptera
Louva-a-deus	Mantis	Mantodea
Marimbondo	Wasp	Vespidae
Papa-vento		Squamata, Lacertilia
Percevejo	Bug	Pentatomidae 1
		Pentatomidae 2
		Pentatomidae 3
Rato-campante	Field rat	Muridae
Sapo	Toad	*Bufo* sp.
Serra-pau	Wood boring beetle	Cerambycidae 1
		Cerambycidae 2
		Cerambycidae 3

*Actually, these insects are Hemiptera.

In addition, some ambivalence in the perception of "insects" was also recorded, as it is observed in the following sentences:

> "Gecko at least, ok? I do not think it is so offensive bug, all right?" (Mrs. M.I., 63 years old).
>
> "Some are cute" (R., 23 years old).
>
> "There are some that are, others are not. I think only the caterpillar as disgusting" (R., 23 years old).

Few interviewees showed some more positive attitudes toward the animals considered as "insects". Most of them, however, share reactions and feelings that lead to a negation behavior to the life of these animals, as one of the interviewee told: "I think it should be put an end with them all, since they do not bring any benefits to humankind in general. So death is the solution" (Mr. J., 47 years old).

The reunion of animals with so diverse evolutionary histories into just one taxon has been observed in different cultural contexts, both ancient and present. Aristotle included insects, arachnids, myriapods, and worms in the "Entoma" group (Morge 1973). In the Biblical times, the term *sheretz* consisted of all the crawling creatures such as reptiles, mollusks, amphibians, arthropods, and possibly small mammals (Harpaz 1973). Chinese term *tchun* refers to insects and other small animals, especially amphibians and reptiles (Lenko 1963). In Japan, *mushi* includes insects and other animals like centipedes, spiders, crabs, and small aquatic crustaceans, mollusks, worms, and snakes (Laurent 1997). The Kayapó Indians who live in Pará State, North Brazil refer to every insect, scorpion, centipede, crab, tick, and pseudo-scorpion as *maja*, which means "without shell and fleshless animals" and this term has a one-to-one correspondence with the scientific categories of the Arthropoda phylum (Posey 1983). The Waurá Indians who inhabit in the Alto Xingu region in the Northeast of Mato Grosso State have the word *yakawaka*, which is the category correspondent to the "small bugs with many legs that fly or not" (Barcelos Neto 2000). For the Nbunda, an ethnic group who live in the highlands of Papua New Guinea, *tovendi* is the ethnocategory referring to all kinds of insects and arachnids. In some contexts it can be used to designate non-edible animals (some types of toads), while in another it can label any repulsive creature such as the snakes (Hays 1983).

According to Drews (2002), attitudes toward animals are formed through the values, knowledge, perceptions, and nature of the interactions that are established between human beings and animals. Knowledge tends to influence the attitudes: those individuals who know more about a given object seem to have a more rational and positive attitude about it than those who know less (Drews 2002). Sympathetic attitudes concerning animals vary according to the national cultural traditions too. Warmhearted manifestations by animals are ordered in a value scale usually unconscious, but totally explicit in some animal philosophers, which apex is occupied by those species perceived as the most related to man due to their behavior, physiology, cognitive capacities, or because of the attributed capacity of feeling emotions (Descola 1998).

The biophilia hypothesis can explain the ambiguous attitudes humans show to animals (Wilson 1993). According to this hypothesis, there is an innate necessity for human beings to having contact with a diversity of life forms. In other words, we are complex mammals that seek for variety and new stimulus in the context of the biological world, since some regular contact with nature is essential for humans' mental health and welfare (Gowdy 1999). Kudo and Macer (1999) assert that this contact can be loaded of both positive and negative emotions. Because of these emotional ambivalence relationships, people have different perceptions and reactions in front of real or imaginary images of animals included in the semantic dominium "Insect".

Hoyt and Schultz (1999) say that when human beings became progressively strange to the natural world, they lost the ability to differentiate one insect from another. As a result the negative attitudes were generalized to almost all insects. This fact occurred mainly in the Western cultures, where it is explored by the insecticide industries, in several advertisings, and even in some artistic manifestations, such as music and movies when they usually exalt the hazardous qualities anthropocentrically attributed to the insects and the rest of animal-like insects.

Regarding people's perception of animal body and its relation to ethnotaxanomy, a simple test was made in

order to know how the inhabitants of Tapera nominate the external parts of the body of insects. This test consisted of showing drawings with images of selected true insects to the interviewees, who were asked to nominate the known body parts (Fig. 1). It was observed then that antennas are commonly called as horns or stings; legs are called as arms; abdomen is referred to as body; and the terminal part is called as buttock. Similar nominations were recorded in the village of Pedra Branca (Costa Neto 2004, Costa Neto et al. 2005).

As Berlin (1992) says, both the morphological perception and the identification of the corporal topography of animals are significant criteria in studies of ethnotaxonomy to delimiting the semantic limits of zoological ethnocategories. Berlin also says that morphological conception is important to characterize both the subterminal taxa (ethnogenera) and the terminal taxa (ethnospecies). Three general patterns are discussed in the nomination of different animal body parts. These are: polyonomy, which is the application of more than one name to the same corporal structure; attributed functionality, which refers to the attribution of functions to those structures; and codification of anthropomorphical analogy, which demonstrates the strong influence of the human morphology terms in the nomination of animal body parts (Souto and Marques 2006). These three patterns were recorded in Tapera.

As noted, animals considered as "insects" are often associated to the conception of being poisonous, showing unpleasant aspect, and causing disgusting reactions. For some of the interviewees, the simple mention of the term "insect" brought back to their minds the memory they have already been "injured", directly or indirectly, by one of the animals included in the "insect" ethnocategory. In this context, injury means any kind of accident and/or physical damage caused by "insects" to human health and welfare. These injuries, be them real or imagined (hallucinations), reinforce the feelings of repugnance and strengthen more and more the behavior of escape and/or elimination of the object that causes these disgusting feelings. Table II shows the types of "insects" that cause some kind of disturbance to human health, the felt effects, and the interviewees' notes. Next, the injury of some of these "insects" is discussed.

According to some individuals, bird spiders or "caranguejeiras" (Araneae, Mygalomorphae) are accused of provoking amputation of body parts of the victim who was bitten. Although the venom of these spiders is little known yet, there is no data of serious human accidents and even cases of member amputation in Brazil (Lucas 2003). Jorge et al. (1991) claims that the bites of bird spiders usually just cause a low intensity, short duration pain which sometimes is accompanied by a discreet local inflammation.

The imminent danger is not the bite but the hairs on the abdomen. The spiders of the Theraphosidae family (Theraphosinae, Aviculariinae and Grammostolinae) bear a region covered with hairs on the back of their abdomens. These hairs present tiny acrid bristles that are visible only through microscope, concentrating at this place from 10.000 to 20.000 hairs per mm^2 (Soerensen 1990, Schvartsman 1992). When these spiders feel threatened they scratch the hind legs against the abdomen making these bristles fluctuate and then provoking irritation and extreme itching when they reach the skin (Lucas 2003). There are reports of accidents caused by these bristles that get in the eyes provoking injuries in the cornea. They can also reach the aerial respiratory system causing great irritations. Symptoms, however, depend on the species and sensitivity of each person (Lozoya and Bernal-Ibáñez 1993).

Lepidoptera larvae locally known as "fire caterpillars" (Port.: lagartas-de-fogo) were cited as dangerous because they provoke burns on the skin of those individuals who accidentally get in touch with their urticating hairs. The following testimony proves their harmful action: "It is not venomous like the spider, but its hair is worse than the spider's" (Mr. A., 47 years old).

Accident caused by these caterpillars is clinically called as erucism. It can be direct, when the damages are caused through the contact with the caterpillars themselves, or indirect when the contact occurs with the cocoons protected by the urticating hairs (Carrera 1991). The poison carried by these hairs is immediately inoculated in the skin and produces a reaction that ranges from a passing erythema to more extensive injuries, but the severity of symptoms varies from individual to individual (Costa Lima 1945 *apud* Santos 1985). However, some species can be lethal. For example, the poison-

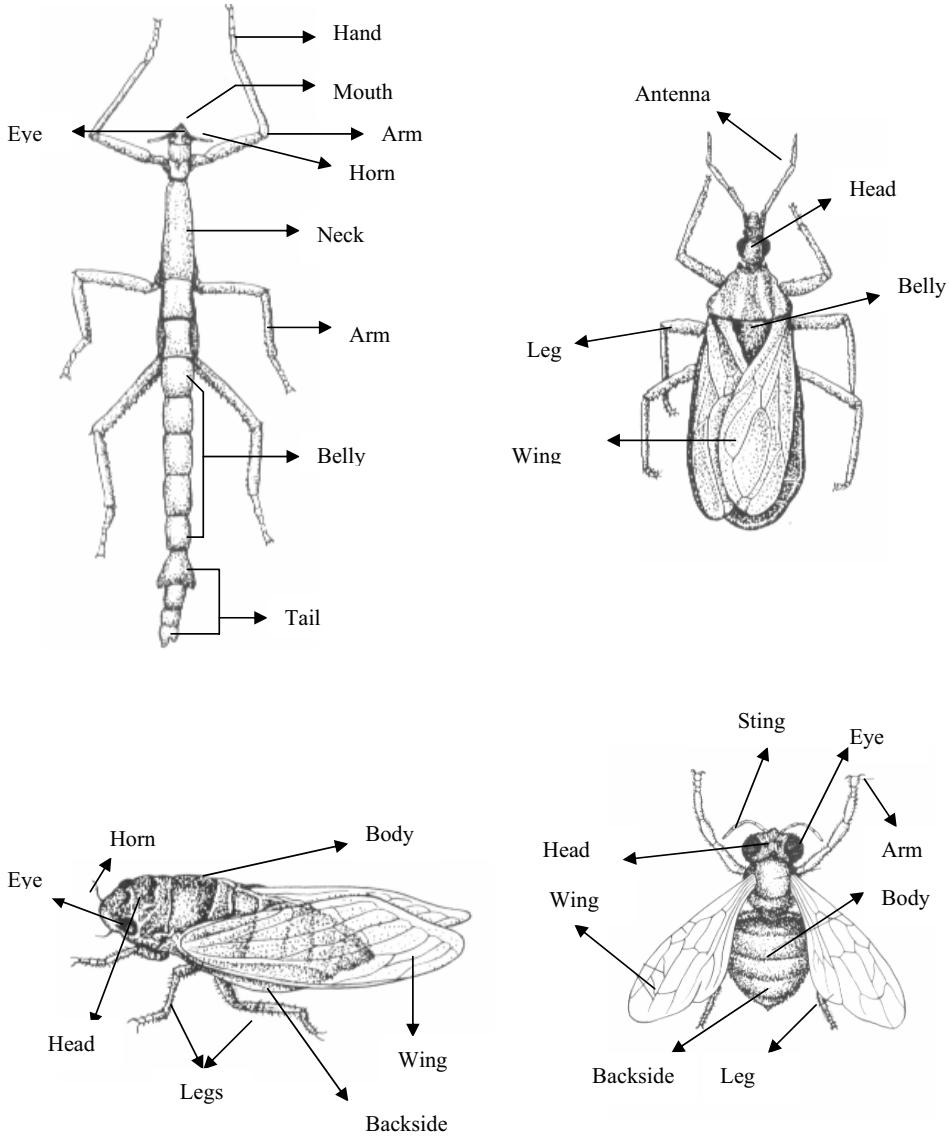

Fig. 1 – Corporal topography of the body parts of a walking stick (Phasmatodea), a bug (Hemiptera), a cicada (Hemiptera), and a fly (Diptera), according to the terms nominated by the interviewees. Pictures taken from Revel (1990).

ing by *Lonomia* caterpillars (Saturniidae) provokes very severe reactions that hospitalization is usually required (Blum 1994). In Rio Grande do Sul *L. oblique* Walker was responsible for the death of four people due to hemorrhage, and for the intoxication of more than 260 individuals (Schmidt 1995).

Considering the cicada (Hemiptera, Cicadidae), interviewees said that its "urine" can cause blindness if it gets in the eye by accident. Probably this insect was cited because of its habit of throwing out a gush of urine when escaping from a potential predator (Mondon 2000). In the inner of Amazon the drops released by a cicada are mixed to some water and then given to children to drink so they will have a beautiful voice in the future (Lenko and Papavero 1996).

The characteristics of noxiousness, dirtiness and toxicity which are attributed to "insects" not only influence how these animals are categorized within a given ethnobiological classification system, as well as exert a significant influence in the interactions humans maintain

TABLE II
"Insects" hazardous to human health, according to the inhabitants of the county of Tapera, São Gonçalo dos Campos, Bahia.

"Insect"	Effects	Interviewees' notes
Spider (Areneae)	Envenoming followed by death	"If it bites you die. I think it is because of the poison" (Mrs. M. I., 63 years old).
		"Because it bites. It can transmit something to us" (Mrs. V., 42 years old).
Cockroach (Dictyoptera)	Infection	"From where it moves, it must have some bacteria, some thing that does not combine with the health of the person, OK? It can transmit some bacteria human being does not agree with" (Mr. A., 47 years old).
Assassin bug (Hemiptera)	Death	"Now the bug is an animal that it does not kill at the moment, but with short time, OK? It can harm" (Mr. J., 47 years old).
Bird spider (Theraphosidae)	Amputation of body parts	"In the area it passes by, a goodbye for the body of a person. If it does not kill, one can lose an arm, a leg. He can lose it! If he does not care about he can lose a part of the body" (Mr. A., 47 years old).
Cicada (Cicadidae)	Blindness	"But it is said it blinds if its urine gets in the eye of a person" (Mrs. A., 54 years old).
Irritating caterpillar (Lepidoptera)	Burns	"It is not venomous like the spider, but its hair is worse than the spider's. And burns. It leaves in your body that burn. And wounds" (Mr. A., 47 years old).
Cricket (Orthoptera)	Fever and headache	"It cannot kill but can cause other kind of harm, cannot it? It can cause fever, OK? A headache, something like that, OK?" (Mr. J., 47 years old).
Toad (Amphibia)	Envenoming	"Because it is dangerous and poisonous, if someone touches it" (Mr. J.J., 40 years old).

with this taxon. For that reason, the trophic interaction, or the use of "insects" as food resource, was one of the interactions closely linked to the disgusting reaction. Every time people were questioned about the use of these animals as their regular food, their answer was almost always the same: "My God! How am I supposed to eat that filth?" (R., 23 years old). "Insects" used as food in Tapera are highlighted in the testimonies below:

> "Look, I saw, I saw, OK? Because there are people that eat that chameleon from the bush" (Mrs. M.I., 63 years old).
>
> "There is the ant. People eat it when it rains" (Mr. J., 47 years old).
>
> "There are people who eat grasshopper" (Mrs. V., 42 years old).
>
> "Have you already heard about the field rat? There are people who are deceived and eat that as it was a preá [another kind of wild rodent], OK?" (Mr. A., 47 years old).
>
> "There are people who eat snake. It can send other fish and it is not a fish but a snake" (Mr. A., 47 years old).

It is interesting to note that people who were deceived and actually ate an "insect" (a snake meat, for

example) did not manifest any sensation of disgust or repugnance until they discovered what they really have eaten. When this happens the sensation of disgust comes.

Based on the data obtained in this study we can conclude that insects have a great significance for the inhabitants of Tapera. "Insect" ethnocategory is a cultural construction since animals from different taxonomic groups (mammals, reptiles, amphibians, and insects themselves) are classified according to their shape perception. The entomoprojective ambivalence hypothesis is reinforced since perceptions toward these animals imply ambiguous behavior and feelings, which range from more positive attitudes (conservative) to more negative (destructive).

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RESUMO

Este artigo discute a construção do domínio etnozoológico "inseto" pelos moradores do povoado de Tapera, localizado no município de São Gonçalo dos Campos, estado da Bahia. Os dados foram obtidos no período de março a maio de 2005 por meio de entrevistas semi-estruturadas realizadas com 23 homens e 8 mulheres, cujas idades variaram de 6 a 66 anos. Os entrevistados foram questionados sobre como percebiam e definiam os animais considerados "insetos", quais os tipos que conheciam e se usavam esses animais como fonte alimentar. A maioria das entrevistas foi registrada em micro-fitas; transcrições semi-literais estão no Laboratório de Etnobiologia da Universidade Estadual de Feira de Santana. Considerando o sistema de classificação etnozoológico dos moradores de Tapera, o termo "inseto" é uma categoria semântica ampla que reúne animais de diferentes grupos taxonômicas não sistematicamente relacionados. Aparentemente, esses animais são culturalmente percebidos e categorizados como "insetos" porque geralmente são tidos como nocivos, nojentos e transmissores de doenças. Os insetos verdadeiros podem ser excluídos da etnocategoria devido à percepção que as pessoas têm de que esses animais não causam danos ou são úteis. As percepções com relação a esses animais implicam comportamento e sentimentos ambíguos que variam de atitudes mais positivas (conservadora) a atitudes mais negativas (destrutiva).

Palavras-chave: etnoentomologia, percepção, conhecimento tradicional, insetos.

REFERENCES

BARCELOS NETO A. 2000. Monstros amazônicos: imagens Waurá da (sobre) a natureza. Ciência Hoje 27: 48–53.

BERLIN B. 1992. Ethnobiological classification: principles of categorization of plants and animals in traditional societies. New Jersey: Princeton University Press, 335 p.

BLUM MS. 1994. The limits of entomophagy: a discretionary gourmand in a world of toxic insects. The Food Insects Newsl 7: 1, 6–11.

BORROR JD AND DELONG MD. 1969. Introdução ao estudo dos insetos. São Paulo: Editora Edgard Blücher Ltda, 653 p.

BROWN CH. 1979. Folk zoological life-forms: their universality and growth. Am Anthropol 81: 791–812.

CARRERA M. 1991. Insetos de interesse médico e veterinário. Editora da UFPR, Curitiba, PR, Brasil, 228 p.

CENTRO DE ESTATÍSTICA E INFORMAÇÕES. 1994. Informações básicas dos municípios baianos: Paraguaçu. Governo do Estado da Bahia, Salvador, BA, Brasil, 877 p.

COSTA NETO EM. 1998. Folk taxonomy and cultural significance of "abeia" (Insecta, Hymenptera) to the Pankararé, Northeastern Bahia State, Brazil. J Ethnobiol 18: 1–13.

COSTA NETO EM. 1999. A etnocategoria "inseto" e a hipótese da ambivalência entomoprojetiva. Acta Biol Leopoldensia 21: 7–14.

COSTA NETO EM. 2000. Introdução à etnoentomologia: considerações metodológicas e estudo de casos. UEFS, Feira de Santana, BA, Brasil, 131 p.

COSTA NETO EM. 2002. Manual de etnoentomología. Zaragoza, Manuales & Tesis SEA, 104 p.

COSTA NETO EM. 2004. Os insetos pelos moradores da Serra da Jibóia, Bahia. UEFS, Feira de Santana, BA, Brasil, 134 p.

COSTA NETO EM AND PACHECO JM. 2004. A construção do domínio etnozoológico "inseto" pelos moradores do povoado de Pedra Branca, Santa Terezinha, Estado da Bahia. Acta Scientiarum. Biol Sci 26: 81–90.

COSTA NETO EM, LAGO APA, MARTINS CC AND BARRETO FILHO P. 2005. O "louva-a-deus de-cobra", *Phibalosoma* sp. (Insecta, Phasmida), segundo a percepção dos moradores de Pedra Branca, Santa Terezinha, Bahia, Brasil. Sitientibus ser C Biol 5: 33–38.

DESCOLA P. 1998. Estrutura ou sentimento: a relação com o animal na Amazônia. Mana 4: 23–45.

DREWS C. 2002. Knowledge and wild animals as pets in Costa Rica. Anthrozoös 15: 119–138.

FAIRHEAD J AND LEACH M. 1999. Termites, society and ecology: perspectives from West Africa. In: POSEY DA (Ed), Cultural and spiritual values of biodiversity, Londres: ITP, p. 235–242.

FISHER BL. 1998. Insect behavior and ecology in conservation: preserving functional species interactions. Ann Ent Soc Am 91: 155–158.

GOWDY J. 1999. Economic concepts of sustainability: relocating economic activity within society and environment. In: BECKER E AND JAHN T (Eds), Sustainability and the social sciences: a cross-disciplinary approach to integrating environmental considerations into theoretical reorientation, Londres, Zed Books, p. 162–181.

GREENE ES. 1998. Ethnocategories, social intercourse, fear and redemption. Comment on Laurent. Available at: http://www.psyeta.org/sa/sa3.1/greene.html.

HARPAZ I. 1973. Early entomological in the Middle East. In: SMITH RF ET AL. (Eds), History of entomology. Palo Alto: Annual Reviews Inc, p. 21–36.

HAYS TE. 1983. Ndumba folk biology and general principles of ethnobotanical classification and nomenclature. Am Anthropol 85: 592–611.

HOYT E AND SCHULTZ T. 1999. Insect lives: stories of mystery and romance from a hidden world. New York, USA, J Wiley & Sons, 360 p.

JORGE MT, VON EICKSTEDT VRD, KNYSAK I, FISMAN LFZ AND RIBEIRO LA. 1991. Curso sobre acidentes com animais peçonhentos. 5ª aula. Acidentes por picada de aranha. Arquivos Bras Med 66: 457–468.

KUDO R AND MACER D. 1999. Relationships towards animals in Japan. Eubios J Asian Intern Bioethics 9: 135–137.

LAURENT E. 1997. Definition and cultural representation of the category mushi in Japanese culture. Available at: http://www.psyeta.org/sa/sa3.1/laurent.html.

LENKO K. 1963. *Tchun-Van*, deus dos insetos. Chácaras e Quintais 106: 522–526.

LENKO K AND PAPAVERO N. 1996. Insetos no folclore. São Paulo: Plêiade/ FAPESP, 486 p.

LOZOYA X AND BERNAL-IBAÑEZ S. 1993. A cien años de la Zoología medica de Jesús Sánchez. México: Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, 189 p.

LUCAS SM. 2003. Aranhas de interesse médico no Brasil. In: CARDOSO JLC ET AL. Animais peçonhentos no Brasil: biologia, clínica e terapêutica dos acidentes. SARVIER, São Paulo, SP, Brasil, p. 141–149.

MONDON B. 2000. Petite anthologie de la cigale. Barbentane: Éditions Équinoxe, 130 p.

MORGE G. 1973. Entomology in the western world in antiquity and in medieval times. In: SMITH RF ET AL. (Eds), History of entomology. Palo Alto: Annual Reviews Inc, p. 37–80.

MORRIS MG, COLLINS NM, VANE-WRIGHT RI AND WAAGE J. 1991. The utilization and value of non-domesticated insects. In: COLLINS NM AND THOMAS JA (Eds), The conservation of insects and their habitats. Londres, Academic Press Limited, p. 319–347.

POSEY DA. 1983. O conhecimento entomológico Kayapó: etnometodologia e sistema cultural Anuário Antropol 81: 109–121.

POSEY DA. 1986. Etnoentomologia de tribos indígenas da Amazônia. In: RIBEIRO BG (Ed), Suma Etnológica Brasileira. Série Etnobiologia. Editora Vozes, Petrópolis, RJ, Brasil, p. 251–273.

POSEY DA. 1987. Temas e inquirições em etnoentomologia: algumas sugestões quanto à geração de hipóteses. Bol Mus Para Emílio Göeldi, Ser Antropol 3: 99–134.

REVEL N. 1990. Fleurs de paroles: histoire naturelle Palawan I: lens dons de Nägsalad. Paris: Éditions Peeters, 390 p.

RIBEIRO SC AND MARÇAL JÚNIOR O. 1996. Aspectos da taxonomia popular de artrópodos, na comunidade de Cruzeiro dos Peixotos (Uberlândia – MG) I. Identificação e nomenclatura. R Cent Ci Bioméd, Univ Fed Uberlândia 12: 13–18.

SANTOS E. 1985. Os insetos. Belo Horizonte: Itatiaia (Coleção Zoologia Brasílica, 10), 243 p.

SCHMIDT M. 1995. Venenos também curam. Ecologia e Desenvolvimento 52: 4–15.

SCHVARTSMAN S. 1992. Plantas venenosas e animais peçonhentos. SARVIER, São Paulo, SP, Brasil, 288 p.

SEIGNOBOS C, DEGUINE JP AND ABERLENC HP. 1996. Les Mofu et leurs insectes. Journ d'Agric Trad et Bota Appl 33: 125–187.

SILVA TFP AND COSTA NETO EM. 2004. Percepção de insetos por moradores da comunidade Olhos D'água, município de Cabaceiras do Paraguaçu, Bahia, Brasil. Bol SEA 35: 261–268.

SOERENSEN B. 1990. Animais peçonhentos. Editora Atheneu, Rio de Janeiro, RJ, Brasil, 144 p.

SOUTHWOOD TRE. 1977. Entomology and mankind. Am Sci 65: 30–39.

SOUTO FJB AND MARQUES JGW. 2006. "O siri labuta muito!" Uma abordagem etnoecológica abrangente da pesca de um conjunto de crustáceos no manguezal de Acupe, Santo Amaro, Bahia, Brasil. Sitientibus ser C Biol, Etnobiologia 6: 106–119.

STORER TJ, USING RL, STEBBINS RC AND NYBAKKEN JW. 1995. Zoologia geral. Companhia Editora Nacional, São Paulo, SP, Brasil, 816 p.

WILSON EO. 1993. Biophilia and conservation ethic. In: KELLERT SR AND WILSON EO (Eds), The biophilia hypothesis. Washington: Island Press, p. 31–41.