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THE ECOLOGY OF *TRIATOMA SORDIDA* IN NATURAL ENVIRONMENTS IN TWO DIFFERENT REGIONS OF THE STATE OF MINAS GERAIS, BRAZIL

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SUMMARY

A study was undertaken about *T. sordida* in the natural environment in two different regions of the state of Minas Gerais: Itapagipe (Triângulo), an area of cerrado modified by the formation of fields of pasture and agriculture, and Mato Verde (north) an area of transition between caatinga and cerrado with profound deforestation in the last years due to the expansion of cotton cultivation.

In both regions the principal ecotopes identified were hollow trees and the bark of live or dead trees, where the occurrence of a food source is not frequent. In this environment, the triatomines utilize various food sources; opposums appear to represent an important source of infection. In the north of Minas, a greater concentration of reservoirs and vectors was observed than in the Triângulo which could explain the higher level of infection of the triatomines in the north. Close attention to the process of domiciliation of *T. sordida* in the north of Minas is recommended where an extensive intervention by man in the natural environment has occurred and where a rise in the population of triatomines in the peridomestic environment has been observed in recent years.

KEY WORDS: *Triatoma sordida;* Natural ecotopes; Triatomines; Chagas' disease.

INTRODUCTION

Triatoma sordida is, at present, the triatomine most frequently captured in artificial ecotopes by the Programa de Controle da Doença de Chagas in Brazil, (Control Program for Chagas' Disease in Brazil). This observation extends to the state of Minas Gerais. It is predominantly found near the houses where its absolute density has risen in some areas, and it not uncommonly also colonizes the houses themselves[13,14,31]. ZELEDÓN (1974)[34] and BARRETTO (1979)[6] classify *T. sordida* amongst those triatomines that are undertaking the process of adapting to domestic environments from their natural foci, which include hollow and cracked trees and under bark partially separated from the trunks of both dead and live trees, and secondarily, in trunks of various species of palm trees[4]. In this environment, the level of infection of the triatomine by *Trypanosoma cruzi* is variable, 18% in the southeast of the state of Goiás[4] and 5.7% in the south of Mato Grosso (the present Mato Grosso do Sul)[5]. In these studies, the principal food sources, studied by means of precipitin reactions, were opposums and rats in tree trunks, and birds in palm trees. In the municipality of Uberaba, Minas Gerais, BARRETTO & CAVALHEIRO (1966)[8] found *T. sordida* in natural ecotopes for the first time in this state. Of the insects which had their stomach contents submitted to the precipitin reaction, 34.1% were reactive, and the blood of birds, opposums and rats were identified. In a later study[9], the investigation of the presence of wild triatomines in the same town revealed the

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occurrence of *T. sordida* in all types of palm trees studied (babaçus, macaubeiras and buritis).

In parallel, FORATTINI et al. (1971)[19] demonstrated that *T. sordida* have their center of dispersion in the cerrado, characterized by a dry climate and more elevated temperatures[18,20]. They confirmed the frequent occurrence of the insect in tree hollows and beneath the bark of dry or dead trees in the natural environment. It is an ubiquitous species, with a wide ecological potential, which allows it to inhabit various ecotopes and to utilize different sources of food. FORATTINI et al. (1974)[21] observed the persistence of *T. sordida* in a region of the state of São Paulo after the area had been cleared and burned, demonstrating that the insect is capable of resisting modifications of the environment. Such modifications may lead to the reduction or even the disappearance of competing populations (in particular predators) and the increase in the number of viable ecotopes (dry and isolated trees), favoring the growth of the population of *T. sordida*. It has also been observed[20] that certain ecotopes do not offer frequent opportunities for the triatomines to feed, stimulating dispersion in search of a more stable ecotope. Thus, the insects become attracted to houses and their outbuildings.

In this context, the object of the present work was to study the biology and ecology of wild *T. sordida* in areas of Minas Gerais with high levels of infestation of artificial environments by this species.

MATERIALS AND METHODS

In the two regions of the state of Minas Gerais with highest rates of occurrence of *T. sordida* in artificial ecotopes[29], two municipalities were selected at random as bases for field work: in the Triângulo Mineiro, Itapagipe and in the north of Minas, Mato Verde (Map 1).

Itapagipe is situated on the banks of the Rio Grande, which divides Minas Gerais from São Paulo. The region is typically cerrado, greatly modified by the formation of fields of pasture and agriculture, which are the principal economic activities[26].

In Mato Verde the principal activities are the cultivation of cotton and cattle rearing[30]; the natural vegetation combines the characteristic of caatinga and cerrado. Large expanses of high cerrado type forest are found in the region[25] with, however, the presence of xerophytic vegetation (cactus, for example). In the dry season the trees lose their leaves which they regain after the spring rain. The natural conditions of the region have also been profoundly modified through deforestation and large scale cultivation of cotton, maintained by the constant use of herbicides and insecticides.

Natural environments such as woodland and pasture are distributed throughout the municipalities selected. In these areas, trunks of live and dead trees, palm trees, tufts of vegetation, stones, etc. were searched for the presence of *T. sordida,* often making use of an axe or scythe. A numbered form containing information on the type of ecotope and its conditions was completed for each positive and one representative negative ecotope. The insects found were collected in flasks labeled with the number of the corresponding ecotope.

In the laboratory, the insects were identified and examined by dissection to establish infection by *T. cruzi.* The confirmation of the parasite diagnosis was realized by morphological and isoenzimatic studies[14]. Stomach contents were also collected for later identification by the precipitin test[10].

In parallel with the studies of the natural ecotopes of *T. sordida,* investigation of natural *T. cruzi* in forest animals, principally opposums and rodents, was undertaken in the same municipalities. In each region (Mato Verde e Itapagipe) 13 traps were distributed in the late afternoon in forest environments, on a total of 22 days in Mato Verde and 27 days in Itapagipe. Other animals were captured manually when possible. The captured animals were submitted to xenodiagnosis using 10 third instar nymphs of *T. infestans* (at that time the triatomine available in the insectarium). The insects were examined by dissection in the laboratory.

These studies were undertaken bi-monthly between September/1985 and August/1986 in Mato Verde, and between October/1985 and October/1986 in Itapagipe.

RESULTS

In the municipality of Mato Verde, 105 natural ecotopes were investigated, of which 37 were positive for triatomines (35.2%). In 35

ecotopes (33.3%) (Table 1), 68 specimens (94.1% nymphs) of *T. sordida* were captured; 10.9% of the insects were infected with *T. cruzi*. The average number of triatomines per positive ecotope was 2.0±2.5. A male and female *T. pseudomaculata*, not infected by the protozoa, were also found in two different ecotopes (hollows and dry trees). Table 2 shows the number of triatomines found in this region, classified by life cycle stage. Analysis of variance of the average number of triatomines/positive ecotope (Table 3) did not show a significant difference between months of capture (p=0.2), in contrast to the means of temperature (p=0.01) and humidity (p=0).

The positive ecotopes were situated at a mean distance of 61±157m one from another. The mean temperature of the positive ecotopes (27±3°C) was not significantly different from that of the negative ecotopes (29±3°) (p=0.6); the same was observed in relation to humidity (positive ecotopes = 54±11%; negative ecotopes = 42±14%) (p=0.1).

A food source or indications of a food source was present in 31.4% of the positive ecotopes and 44.1% of the negative ecotopes (p=0.3). In the group of positive ecotopes, 81.8% of the food sources were lizards; one ecotope contained rodents and another hair of an unidentified mammal.

Of the 44 specimens submitted to the precipitin test, it was possible to identify the food source in 18 (40.9%). The other 26 insects (59.1%) did not contain sufficient material for testing. Antisera against the following were reactive: Didelphidae (15.9%), Sauria (11.4%), Muridae, Cebidae, Dasyproctidae, Amphibia, Hominidae and Cricetidae (for each of the latter only one insect was reactive, 2.3%).

In Itapagipe 121 natural ecotopes were investigated, of which 47 (38.8%) were infested by *T. sordida*, 12 (9.9%) by *R. neglectus*, four (3.3%) by *P. tertius* and one (0.8%) by *P. megistus*. One hundred and thirty-five specimens of *T. sordida* (93.5% nymphs) were captured. Only one male specimen was parasitized by *T. cruzi* (0.7%), significantly less than that found in Mato Verde (p=0.01). The overall mean of the number of specimens of *T. sordida* per positive ecotope was 3.1±3.2 triatomines, which was not statistically different from the mean for each individual period of study (p=0.9) (Table 4). Table 5 shows the number of triatomines found, classified by cycle stage, for each period.

Of the 80 triatomines studied, it was possible to identify the blood in the digestive system in 19 (23.7%); 61 (76.3%) did not have enough blood for testing. In the positive triatomines the antisera tested identified blood from Phasianidae (5%), Mammals (6.3%, for which determination at the family level was not possible), Cricetidae (5%), Chiroptera (2.5%), Amphibia (2.5%), Sauria (1.3%) e Psittacidae (1.3%).

The ecotopes studied are presented in Table 6; they were situated at a mean distance of 436.9±839.4m one from another and 726±1.025m from houses. No triatomines were captured within the forest itself.

The mean temperature and humidity of the positive ecotopes were 24±9°C and 55±26% respectively and, for the negative ecotopes, 26±7°C and 52±21% (p<0.05).

The presence or indications of the presence of animals were found in 31.8% of the posi-

TABLE 1

Number of natural ecotopes investigated infested by *T. sordida* and the number of triatomines captured in each ecotope, in the municipality of Mato Verde, north of Minas (September/1985 to August/1986).

Type of ecotope	Number of ecotopes investigated	Number of ecotopes infested	Number of triatomines captured
Hollow tree trunks	31	10 (28.6%)	32
Bark of live trees	25	9 (25%)	12
Dead trees	45	16 (45.7%)	24
Gravatá	2	0	0
Bird nests	1	0	0
* Pedras	1	0	0
Total	105	35 (33.3%)	68 **

* continuous area of about 500 m^2

** mean number of triatomines/positive ecotope = 2.0±2.5

tive ecotopes and 31.6% of the negative ecotopes (p=0.8). Birds were detected in three of the positive ecotopes, lizards in five, rodents in one, hair from an unidentified animal in one and bats in five.

TABLE 2
Number of specimens of *T. sordida* captured in natural ecotopes, by developmental stage, in the investigations undertaken in the municipality of Mato Verde, north of Minas Gerais.

Month of capture	Developmental stage						
	I	II	III	IV	V	Adult	Total
September/85	0	0	2	0	1	0	3
December/85	0	3	2	1	6	0	12
February/86	1	1	2	2	6	0	12
April/86	2	1	3	3	14	3	26
June/86	0	0	0	5	7	1	13
August/86	1	0	0	0	1	0	2
Total	4	5	9	11	35	4	68

Besides *T. sordida,* 158 specimens of *R. neglectus*, 57 of *P. tertius* and four of *P. megistus* were also captured. The *R. neglectus* specimens were principally found in palm trees (*Acrocomia sclerocarpa, Mauritia vinifera and Scheelea phalerata*) and a seriema nest situated in a tree. Four specimens (14.3%) captured in three different palm trees were infected with *T. cruzi. P. tertius* of all stages were found in nests of *Phacello-domus rufifrons* and *Anumbis annumbi.* Four specimens of *P. megistus* (all fourth-instar nymphs) were found in palm trees (bacuri) associated with parakeet (Psittacidae) nests; one nymph was infected with *T. cruzi.*

Of the 37 animals captured in Mato Verde, 30 were opposums (*Didelphis albiventris*) and seven rodents (*Trichomys apereoides*). In Itapagipe 13 *D. albiventris,* nine bats (*Eumops bonariensis, Eumops auripendulus, Molossus molossus* and *Molossus planirostris*), three mice, three rats and four unidentified marmosets and one armadil-

TABLE 3
Natural ecotopes investigated, mean number of specimens of *T. sordida* captured per positive ecotope and the average temperature and humidity in each period in the municipality of Mato Verde, north of Minas.

Period	Nº ecotopes investigated	Nº positive ecotopes (%)	$\bar{x}$ *T. sordida* positive ecotope	$\bar{x}$ temp.	$\bar{x}$ humidity
Sep/85	31	2 (6.5%)	1.5±0.7	32±3	33±3
Dec/85	20	6 (30%)	2.0±1.7	27±3	63±9
Feb/86	19	10 (52.6%)	1.2±0.4	26±1	64±8
April/86	10	7 (70%)	4.1±4.8	31±2	45±3
June/86	14	8 (64.3%)	1.6±1.9	26±3	47±6
August/86	11	2 (18.2%)	1.0±0	33±2	34±3
Total	105	35 (33.3%)	2.0±2.5	29±4	49±15

$\bar{x}$ = average
temp. = temperature

TABLE 4
Natural ecotopes investigated, mean number of specimens of *T. sordida* captured per positive ecotope and average temperature and humidity in each period in the municipality of Itapagipe, Triângulo Mineiro.

Period	Nº ecotopes investigated	Nº positive ecotopes (%)	$\bar{x}$ *T. sordida* positive ecotope	$\bar{x}$ temp.	$\bar{x}$ humidity
Oct/85	20	0	0	30±2	51±7
Jan/86	14	1 (7.1)	2.0±0	27±3	72±9
March/86	4	0	0	28±2	64±9
May/86	17	9 (52.9)	3.8±4.4	28±3	61±9
July/86	40	9 (36.0)	3.1±2.8	29±3	35±7
Oct/86	40	28 (68.3)	2.9±2.9	26±3	65±16
Total	121	47 (38.8)	3.1±3.2	28±3	55±17

$\bar{x}$ = average
temp. = temperature

TABLE 5
Number of specimens of *T. sordida* captured in natural ecotopes, by life cycle stage, in investigations undertaken in the municipality of Itapagipe, Triângulo Mineiro.

Month of capture	Developmental stage I	II	III	IV	V	Adult	Total
Oct/85	0	0	0	0	0	0	0
Jan/86	1	0	0	0	1	1	3
March/86	0	0	0	0	0	0	0
May/86	2	4	8	7	9	3	33
July/86	1	1	4	10	8	3	27
Oct/86	15	14	11	13	17	2	72
Total	19	19	23	30	35	9	135

TABLE 6
Number of natural ecotopes investigated and infested by *T. sordida* and the number of triatomines captured per ecotope, in the municipality of Itapagipe, Triângulo Mineiro (Oct/1985 - Oct/1986).

Type of Ecotope	Nº Ecotopes Investigated	Nº Positive Ecotopes	Nº Triatomids Captured
Dead tree	74	40 (90.9%)	132 (95.6%)
Live hollow tree	8	2 (4.5%)	2 (1.4%)
Tree bark	7	1 (2.3%)	2 (1.4%)
Dead Macaubeira**	6	1 (2.3%)	2 (1.4%)
Macaubeira**	7	0	0
Birds' nest	8	0	0
Bacuri**	5	0	0
Buriti**	3	0	0
Roots	2	0	0
Guariroba**	1	0	0
Total	121	44	138*

* mean number of triatomines/positive ecotope = 3.1±3.2
** palm trees

lo (*Dasypus novemcinctus*) were examined. Statistical analysis did not reveal a difference between the number of opossums infected in Mato Verde (50%) and Itapagipe (23.1%) (p=0.1). None of the other animal examined were positive for *T. cruzi* in xenodiagnosis.

DISCUSSION

The study of *T. sordida* in natural environments confirmed, at least for the areas here investigated, the preference of this triatomine for dead and dry trees, in agreement with the BARRETTO (1979)[6] and FORATTINI et al. (1971)[19]. The small average number of triatomines found per ecotope is evidence of the instability of these natural habitats, particularly in comparison with other natural ecotopes such as palm trees and bird nests that are frequently inhabited by vertebrates[15]. The survival of *T. sordida* in tree trunks is limited by various factors which reduce the likelihood of the occurrence of large colonies of this species, in particular the fact that these ecotopes are rarely visited or inhabited by vertebrates. In the cerrado region of the state of Goiás (municipality of Formosa), BARBOSA (1980)[2] observed that the habits of some animals reduce the likelihood of contact with triatomines, for example the use of the nest by *Oryzomys eliurus* only during the period of the birth and rearing of their young which are then abandoned. This thus explains the low incidence of infection of rodents with *T. cruzi* in the area (0.1%). Our results indicate that the majority of infested habitats (about 68% in the two areas studied) did not contain evidence of the presence of food sources; in that the majority of insects (59.1% in the north of Minas and 76.3% in Triângulo) did not have sufficient blood in the stomach to permit its identification by the precipitin test. This fact is indicative of the great capacity of prolonged fasting by *T. sordida* in nature which has been verified experimentally[28,31,33]. FORATTINI et al. (1971)[19,20] refer to the lower stability of *T. sordida* ecotopes represented by dry trees and fence posts, and state that the prolonged fasting to which these triatomines are submitted serves as a stimulus for movement in search of food.

FORATTINI et al. (1983)[24] clearly demonstrated the cyclic variation of the *T. sordida* population in experimental chicken houses, with a higher production of adults in the first six months of the year and nymphs in the second. Probably due to sampling problems in our work, we were not able to demonstrate statistical differences to indicate the fluctuation of the insect population throughout the year in the natural environment. Nevertheless, in the results obtained in the north of Minas, a higher proportion of positive ecotopes in the month of April/1986 (70%) can be seen with a corresponding rise in the number of triatomines captured. In this month, the majority of the insects were fifth-instar nymphs (53.8%). A difference in the number of adults and captured (4.5%) appeared to us to indicate that the ecotopes are abandoned by the winged phase soon after their last molting, as a means of dispersal of the species as shown in artificial ecotopes by FORATTINI et al., (1975; 1979)[22,23].

Even though our results cannot be proved statistically, the agreement with the findings of FORATTINI et al. (1979; 1983)[23,24] in the state of São Paulo leads us to believe that this process also occurs in the north of Minas. Although the Triângulo Mineiro is both geographically and ecologically more similar to the areas studied by FORATTINI et al., it was not possible to verify this variation in natural environments in the municipality of Itapagipe. The high variation observed probably reflects differences within the area where we had great difficulty in capturing *T. sordida* in some areas.

The role of the opossum as the principal natural reservoir of *T. cruzi* has been reported by various authors in different regions of Latin America[1,3,11,17,35]. In our work, the importance of the opossum appears to have been shown again, as judged by their natural infection in the two areas. In the north of Minas, this was shown by them being a food source (15.9% of the triatomines submitted to the precipitin reaction) and infection of *T. sordida*, even though only one infected specimen had opossum blood in its stomach. The difficulty in directly associating the food source with the infection of the triatomines is due to the fact that they may be infected by earlier blood meals, and according to SIQUEIRA (1960)[32] this test detects blood ingested by the triatomine up to a maximum of 120 dias after feeding. This is possibly what occurred in the infected specimen with a positive precipitin test result for sauria blood. Interestingly, among the 80 specimens from the Triângulo Mineiro submitted to the precipitin test, none had opossum blood in its stomach and the level of infection with *T. cruzi* was significantly lower than that observed in the north of Minas. The only positive specimen captured had had its last meal from a rodent (Cricetidae). All the data indicate that opossums are an important source of infection in the municipality of Mato Verde. In Itapagipe, because of the greater dispersion of animal, there is likely a smaller chance of contact between *T. sordida* and opossums. For the same reason, opossums exhibit smaller rates of infection than in the north of Minas, thus, as stressed by DIAS (1935)[12], the level of natural infection of triatomines by *T. cruzi* represents a true "natural xenodiagnosis" undertaken in the capture environment.

The relatively large percentage of triatomines (11.4%) that fed on saurians, particularly in the north of Minas, indicates the difficulty of finding a more attractive food source. JIRÓN & ZELEDÓN (1982)[27] demonstrated that *T. infestans, T. dimidiata* and *Rhodnius prolixus* show experimentally a marked preference for warm-blooded hosts, which makes us suppose that the feeding of *T. sordida* on sauria had occurred due to the lack of alternatives for the triatomine, particularly during the long dry season in the north of Minas. Lizards, or their eggs, were observed in 27% of the ecotopes investigated in this area and in 16% of the ecotopes studied in the Triângulo Mineiro, thus constituting an important food source in the natural environment in the two regions. It was also demonstrated that rodents participate in the biological cycle of wild *T. sordida*, with the possibility of having some importance as a source of infection in Itapagipe, as previously demonstrated in other regions[6]. The positive precipitin reaction for Hominidae in Mato Verde may be due to sorological cross reaction between the blood of man and other primates (Cebidae) present in the area. The presence of blood from Phasianidae (chicken, partridge, pheasant family) in the stomach of wild triatomines is probably due to the low specificity of the reaction for distinguishing some bird families. The finding of blood from Chiroptera only in triatomines from the Triângulo is consistent with the small numbers of these animals in the north of Minas, where we never observed bats in the ecotopes where *T. sordida* was captured, in contrast with the observation made in Itapagipe, where for five times, when we were peeling off the bark of trees looking for triatomines, bats flew out.

The finding of two specimens of *T. pseudomaculata* in the municipality of Mato Verde represents the first report of this species in the natural environment. The distribution range of this triatomine goes from the northeast of Brazil[18,31] to Minas Gerais, where it has been relatively frequently captured in artificial ecotopes in the north and northeast regions of the state[14,29]. The capture of only two specimens shows the difficulty of finding the triatomine in the area of study.

Other natural ecotopes of importance, besides dry trees, occur in the region of Triângulo Mineiro, providing shelter for other species of triatomines. This variety reflects in the greater number of species of these vectors in the re-

gion, such as *R. neglectus* associated with various species of palm tree, *P. megistus* in the hollows and cracks of trees, *P. tertius* in Furnariidae nests[8,9]. In the work of BARRETTO & CARVALHEIRO (1966)[8], of a total of 96 specimens of *T. sordida* captured in the municipality of Uberaba, Minas Gerais (Triângulo), 49 were from palm trees, always associated with *R. neglectus*, and the others from trunks of trees, almost always together with *R. megistus*. In the palm trees that we examined, *T. sordida* and *R. neglectus* were found. Of the latter species, 146 specimens were captured in 10 (66,7%) of the palm trees examined, in agreement with different authors[4,5,7,8,9,15], always with high levels of infestation, high average numbers of triatomines per palm tree and with birds being the main source of food. In the palm trees where the triatomines containing the blood of the Phasianidae family were found, other specimens were found with blood of the Strigidae and Psittacidae families. This was probably due to cross reaction between the antisera raised against the blood of these birds since one of the palm trees was situated 1,200m way from the nearest human habitation.

It is important to consider some aspects that differentiate the study areas in the Triângulo and the north of Minas. Despite the great variability of the distances between the infested natural ecotopes in the two regions (61±157m in the north of Minas and 436.9±839m in Triângulo), we believe that there really is a greater dispersion of habitats of *T. sordida* in the Triângulo Mineiro, where the contryside is predominantly comprised of pastures, but with the frequent inclusion of high cerrado type woodland and gallery forests[25]. In the municipality of Mato Verde, the natural environment consists almost exclusively of small residual forests, surrounded by cotton plantations. Thus, the triatomine fauna and the reservoirs are concentrated explaining the higher level of infection of *T. sordida* by *T. cruzi* (10.9% of the 68 specimens captured in Mato Verde) than in Itapagipe (0.8% of the 134 insects captured). Likewise, we believe that the prevalence of *T. cruzi* in opossums in the north of Minas (15 positives/30 examined) is greater than that observed in the Triângulo (3 positives/13 examined), although the difference was not statistically significant probably due to insufficient sample size. The same number of traps were used in the two regions, and the slightly higher frequency of capture in Itapagipe than in Mato Verde reinforces the hypothesis of a higher dispersion of animals responsible for the maintenance of the wild cycle of *T. cruzi* in the Triângulo Mineiro. Triatomines were never captured in the forests in this area, only in areas modified by man. Possibly, this fact is due to the occurrence of predators in this environment, that limit the natural population of *T. sordida* to levels undetectable by our capture method, in agreement with the suggestion of FORATTINI et al. (1971)[19]. In the north of Minas this probably does not occur because of the intervention of man in the environment, which has led to the destruction (and not the disequilibrium) of natural ecotopes, with the remaining forests serving as refuges for diverse populations of wild animals. As a result of the differences between these two regions, we believe that there is greater risk of the domiciliation of wild triatomines, particularly *T. sordida*, in the north of Minas Gerais, due to the greater environmental pressure on the triatomine. The increase in the density of this insect in the north of Minas in the last 10 years was confirmed by DIOTAIUTI, PAULA & DIAS (1992)[16], in contrast with that observed in the Triângulo Mineiro, where, despite the important peridomestic presence of the insect, there are no indications that its frequency is rising in artificial environments. The information presented may be important from the operational point of view, indicating the necessity of greater attention to the process of domiciliation of *T. sordida* in the north of Minas than in the Triângulo Mineiro, and demonstrating, once again, how uncontrolled intervention by man in the natural environment can cause worsening of the state of health of the populations resident in areas of intense deforestation.

RESUMO

Ecologia do *Triatoma sordida* no ambiente silvestre de duas diferentes regiões do estado de Minas Gerais, Brasil.

Foi realizado um estudo sobre o *T. sordida* em ambiente silvestre em duas diferentes regiões do estado de Minas Gerais: Itapagipe (Triângulo), área de cerrado modificado para formação de campos de pastagem e agricultura, e

Mato Verde (norte) uma área de transição entre a caatinga e o cerrado, profundamente desmatada nos últimos anos com a finalidade de expansão do cultivo de algodão.

Em ambas as regiões, os principais ecotopos identificados corresponderam a buracos e cascas de árvores vivas ou mortas, onde a ocorrência de fontes de alimentação não é frequente. Neste ambiente, os triatomíneos utilizam-se de variadas fontes de alimentação; gambás parecem representar uma importante fonte de infecção. No norte de Minas, observou-se uma maior concentração de reservatórios e vetores em comparação com o Triângulo, o que pode explicar a maior taxa de infecção dos triatomíneos no norte. Maior atenção ao processo de domiciliação do *T. sordida* no norte de Minas Gerais é recomendada, onde, nos últimos anos, tem-se observado uma profunda intervenção do homem sobre o ambiente natural, paralelamente ao aumento da população deste triatomíneo nos peridomicílios.

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