A note on the climbing abilities of giant anteaters, *Myrmecophaga tridactyla* (Xenarthra, Myrmecophagidae)

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ABSTRACT: In this note we provide seven observations of climbing behaviour by giant anteaters. Five observations were recorded in the field: three of giant anteaters climbing on top of 1.5 to 2.0 metre high termite mounds, and two observations of giant anteaters in trees. In these cases the animals were apparently trying to obtain food. The other two observations are from captivity, one involves a juvenile animal that several times over a three month period climbed in a tree to the height of around 20 metres. The final observation, involves an adult female that after being separated from her mother climbed on two occasions over a wall with a fence on top (total height 2 metres) to be reunited with her mother. It therefore seems that, despite the fact only one other record of climbing behaviour by giant anteaters exists in the scientific literature that giant anteaters have the ability to climb. It also may be the case that young adults are highly motivated to stay with their mothers.
Key words: giant anteater, *Myrmecophaga tridactyla*, climbing behaviour, wild, zoos

RESUMO: **Nota sobre as habilidades trepadoras do tamanduá-bandeira, *Myrmecophaga tridactyla* (Xenarthra, Myrmecophagidae).** Nesta nota apresentamos sete registros de comportamento de subir expressado por tamanduá-bandeira. Temos cinco exemplos da natureza: três de tamanduás-bandeiras em cima de cupinzeiros de cerca de 1,50 a 2,0 metros de altura e os outros dois de tamanduás em árvores. Nestes casos os animais estavam aparentemente procurando alimentos. Os outros dois exemplos são de cativeiro, um deles de um animal jovem que várias vezes subiu numa árvore de cerca de 20 metros de altura durante um período de três meses. O último exemplo, é de uma fêmea adulta que foi separada de sua mãe e subiu um muro de 2 metros de altura por duas vezes para ficar com sua mãe. Assim, apesar da falta de

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informações sobre a habilidade dos tamanduás-bandeiras em subir, aparentemente é uma habilidade comum.
Palavras-chave: tamanduá-bandeira, *Myrmecophaga tridactyla*, comportamento de subir, natureza, cativeiro

Three species of anteater occur in Brazil, the giant anteater, the collared tamandua (*Tamandua tetradactyla*) and the silky anteater (*Cyclopes didactylus*) (Emmons & Feer, 1990; Eisenberg & Redford, 1999). The giant anteater is thought to be strictly terrestrial, whereas the collared tamandua and silky anteater, while mainly feeding in trees are thought to descend to the ground to forage. Although, one of Latin Americas most well-known species, by the public around the world, relatively little is known about the behaviour, ecology and physical abilities of giant anteaters. There are some papers on foraging behaviour (Redford, 1985b; Montgomery, 1985; Montgomery & Lubin, 1977) and on other behavioural aspects (Shaw et al, 1985; Shaw et al, 1987). It is of course well established that they are principally animals of the South American grassland environments such as the Brazilian Cerrado; plus, that they exclusively consume social insects, such as ants and termites in the wild (Redford, 1985b; Shaw et al., 1987; Naples, 1999). However, little more than this is known about their behaviour. A number of books make suggestions about their behaviour; sometimes these claims are substantiated by quantitative studies and on other occasions only with qualitative data.

Until the present article there was only one documented case of a giant anteater showing the ability to climb (Redford, 1985a), here we provide new observations of the ability of giant anteaters to climb termite mounds, trees and man-made objects.

Observation 1: At approximately 6:30am (30 minutes after sunrise) on the 19th October 2002 in Serra da Canastra National Park, Minas Gerais, Brazil we saw an adult giant anteater on top of an approximately 2 metre high (we did not see it climb the mound) and more than 1 metre in diameter termite mound (Fig. 1). We watched the animal for several minutes. The animal seemed to be foraging on top of the termite mound, it was scratching with its claws and apparently sniffing at the mound. Unfortunately, the animal managed to detect our presence. Then it climbed down from the mound hind legs first while embracing the mound with its forelimbs. The dismounting took around 10 seconds and it seemed that it was a difficult process for the animal. A later inspection of the termite mound revealed long scratch marks where the animal had been descending the mound. Later, in the same day, we spoke to some of the Park's guides and they had also seen this behaviour. Their conclusion was that the top

Figure 1. An adult giant anteater photographed on a termite mound in Serra da Canastra National Park. Photograph: Robert Young.

of the termite mound is the easiest place for the anteater to gain termites; this of course remains to be tested with experiments.

Observations 2 and 3: Also in Serra da Canastra National Park in October 2002, a giant anteater was seen on top of a termite mound of 1.80 metres at 5:00am in the morning (sunrise). The animal was apparently feeding on the emerging queens. The next day at approximately 6:10pm (sunset) another animal was seen on top of a different termite mound of approximately 1.50 metres tall. Again this animal was apparently feeding on the emerging queens (personal communication, Luiz Claudio Marigo). The animal seen in the evening was seen to descend the termite mound headfirst.

Observation 4: Again in Serra da Canastra National Park one of the retired park guides has reported once seeing a giant-anteater actually climbing in a tree (the cerrado trees in Canastra are relatively short around 5 to 8 metres tall) and the animal was probably trying to procure food (personal communication, Luiz Claudio Marigo).

Observation 5: In Southern Pantanal (Mato Grosso do Sul, Brazil), an adult giant anteater was seen almost hanging vertically (head up) from a tree: its front legs were attached above its head to a horizontal branch while its rear legs were just on the ground. It therefore appeared that the animal was trying to climb the tree. Inspection of the tree revealed the presence of an arboreal termite nest and possibly the animal was trying to get close to this nest, to

forage from it (personal communication, Ísis Meri Medri).

Observation 6: A juvenile giant anteater (wild caught in Triângulo Mineiro region, Minas Gerais) escaped its closure at the Belo Horizonte Zoo (Minas Gerais, Brazil) by climbing up a tree to the height of over 20 metres: the animal escaped several more times over a three month period by climbing the same tree to varying heights. The animal was seen to climb using an arm over arm action. The giant anteater seemed to be unable to descend from the tree and after waiting for several hours a member of the zoo's staff had to climb the tree to rescue the animal.

Observation 7: Again at the Belo Horizonte Zoo (November 2002), three adult female giant anteaters were moved into a new enclosure together, after 5 days of being housed together one female, a daughter of one of the other two females was placed in an adjacent enclosure (where she could not see her mother). The next day she was found back in the enclosure with her mother, the zookeeper then returned her to the previous enclosure. The following day she was once again found in the enclosure with her mother. The two enclosures were separated by a solid wall of 1.40 metres, which had on its top 0.50 metres of mesh fencing. Our inspection of the enclosure revealed no holes in the walls, nor were there burrows going underneath them. Therefore, we concluded that she must have climbed over the almost 2-metre high barrier to be reunited with her mother. Of course she may have been able to take advantage of the undulating terrain in the enclosure to assist her climbing but still she needed to have climbed to get into her mother's enclosure.

Given the geographical distribution of the observations it is clear that this climbing behaviour is not a local phenomenon (or culture; which is the case with the tree climbing lions, *Panthera leo* that live close to Lake Manyara National Park, Tanzania; see for example, Avital & Jablonka, 2001). The question as to why this behaviour has not been widely recorded remains: perhaps the answer lies in the fact that most of the wild observations were discovered at sunrise or sunset when the National Parks are not open to the public. Plus, many of the people who made the observations would be unaware of their biological and behavioural significance; however, it does seem that this is a rarely expressed behaviour.

Clearly, a sufficiently hungry or motivated giant anteater will climb trees, termite mounds or other physical structures to obtain certain goals (e.g., food or social reunion). Redford (1985a) has reported that giant anteaters may climb trees to avoid fires, in terms of gathering food this climbing behaviour could be of high value to giant anteaters, if many social insects nests are located in trees or if it is true that the easiest place to gain termites from a termite mound is at the top. Observation 7, is especially intriguing because social behaviour is thought

not to be important to adult giant anteaters – yet if this observation were an experiment to assess the motivation of giant anteaters to stay with their mother, one would have to conclude that it is very high (obviously, we only have a sample size of one) (see Darwkins 1983, 1990; Young 1999). Clearly, controlled experiments could be undertaken to analyse the importance of social contact for giant anteaters. Thereby, further unravelling the mysteries of this most enigmatic of species.

We have conclusively shown that giant anteaters, although in a lower frequency than their co-generics, the collared tamandua and the silky anteater, have the ability to climb.

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