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nutrition in European zoological institutions**

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Management of anteater (*Myrmecophaga tridactyla*, *Tamandua tetradactyla*) nutrition in European zoological institutions

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Introduction: Feeding giant anteaters and tamanduas as insectivorous species provides great challenges for zoological institutions. In recent years an in-house mixture, called “Dortmund mixture”, was the most common feed used in giant anteater and tamandua in German-speaking countries [1]. The more current recommendations for feeding anteaters advise a complete feed specially for insectivore as opposed to a Dortmund mixture [2,3]. The objective of the present study was to gather information on the current feeding management of these species in European zoological facilities with the hypothesis that commercially available complete feeds now have replaced the Dortmund mixture as the primary feed.

Animals, materials and methods: A questionnaire was designed and sent to 78 institutions of the European Conservation Breeding Programme (EEP) for giant anteater and tamandua. The questionnaire was divided into different sections and asked for data on husbandry, health status, feeding, especially feed composition, feed supplementation and faecal consistency. The questionnaire was completed by 45 institutions with data for 130 animals. The majority of these were giant anteaters with 89 individuals and 41 tamanduas, the data thus represent 54% and 59% of the EEP population.

Results and discussion: For giant anteaters, an in-house mixture is still most commonly used. For tamanduas, on the other hand, a complete feed is mainly utilized. Especially institutions that have integrated anteaters and tamanduas into their facilities in the last 10 and 20 years, respectively, use a complete feed. Regarding the in-house mixtures, there are distinct differences, both in composition and amount of each feed used. An essential ingredient of all in-house feed mixtures is raw meat, especially beef but also horse or chicken. However, the use of raw horse meat in particular should be viewed critically, as lethal meningitis has already occurred in the Southern Tamandua due to transmission of *Streptococcus equi* ssp. *Zooepidemicus* [4]. The evaluation of the feeds used for enrichment, for example, shows a clear species difference. While in tamanduas mainly insects are used for this purpose, in giant anteaters it is mainly fruits and avocado. In the wild, however, only the tamandua has been described to consume fruits [5].

Conclusion: In contrast to the past, many anteaters today are fed an adapted complete feed. However, there are major species differences both in the selection of the basic feed and in the supplementation and use of feed for enrichment purposes. More effort probably needs to be put into enforcing current feeding recommendations, especially for the giant anteaters.

References: [1] Bartmann (1983) *Zool. Garten* 53:1-31; [2] Jimeno (2004) *J. Edentata* 6:43-50; [3] Fowler’s *Zoo and Wild Animal Medicine current therapy* (2012); [4] Yuschenkoff et al. (2021) *J. JZWM* 52: 858-862; [5] Brown (2001) *J. Edentata* 12: 63-65