TRAINING (SOCIAL ENRICHMENT) OF BIG CATS AND CHEETAHS

Gardiánová Ivana and Kocourková Alžběta

Demonstrational and Experimental Workplace FAFNR, Czech University of Life Sciences Prague, Kamýcká 129, Praha 6 - Suchdol, 165 21, Czech Republic.

Abstract

Environmental enrichment of animals is one of the tools used to increase the expression of behavior and welfare, divide into five types of enrichment- work, sensors, physical, feeding and social enrichment. The aim of study was analyze of the social enrichment (trainning)situation in Czech and Slovak zoos based on the evaluation questionnaire completed keepers big cats and cheetahs. It was found outthat social enrichment, as part of the environmental enrichment was not used. 16 animal get social enrichmentonly, mainly in the form of training. As social enrichment can be considered an individual contact with their keepers. In this case, 100% of animal had social enrichment and the contact with the keeper. Many of the animals reacted positive on enrichment.

Key words: Environmental enrichment, social enrichment.

Date of Online: 14-03-2014

INTRODUCTION

It is important to know the different types of natural behavior and their physiology before use of enrichment for large cats. Especially when are create enrichment elements. Five categories of enrichment are use to enhance the species specific behavior. These categories are not mutually exclusive and often overlap, but each should be incorporated into the enrichment plan, if it is meaningful for a species. The animals are exposed to unique situations that are not normal for their wild counterparts, for example dependency on the breeders as providers of food and regular veterinary inspections. Social enrichment (social EE) includes training (which of course falls to the work enrichment, in relation to keepers can be considered for social enrichment also). Training helps to train animals so that for example turned out the individual parts of your body to be examined. It moved or directed with the support of the rewards in the form of food and at the same time without the breeder had to be immediately in contact with the animal. The advantage is the possibility of the first visual examination without the use of an anesthetic, while the situation may be resolved less invasive way. Social enrichment may contribute increase exploratory behavior and games, reduce the stress, need a physical examination by a veterinarian or a keeper[7]. Social interaction between an individual and a keeper can be very beneficial in terms of welfare, provides a safe and positive relationship and environment. Big cats are with few exceptions solider animals. However the presence of other individual can be important as it allows the expression of behaviors such as game, competition, cooperation and occasional aggression [2].

Animal training helps cooperate in own health care, a life get less stressful for the keeper and animal[7]. Animal trainer has to well know behavior of the species and the repertoire of physiological characters and the individual. They choose what best way to shape its behavior. The "Shaping plan", which governs the training, was compiled on the basis of behavioral observations, scientific literature or trainer knowledge. The training could be occasional and frustrating for allonly without a plan[4]. Training is primarily used to facilitate the work with the animal. The most common case when the animal's training is very useful are the veterinary surgery or just a manipulation of a keeper. Training should teach individuals to move from the point A to point B on the command, use for the movement

should teach individuals to move from the point A to point B on the command, use for the movement of animals between facilities. To take a specific position or location and remain there motionless for the required period of time. The animals are trained, for example to open the mouth, lift the paw, presentation of tailor hip area, anal and other [8]. Different types of behaviour may occur as a result of the initiative in a particular environment and that use of enrichment, as well as training. This

simplified view of both cases gives the mistaken impression that enrichment and training are one and the same, and the paper authors often these terms used interchangeably. Learning can be defined generally as a change in behavior resulting from the practice or experience. If is the practice or experience given by the people, the process is defined as training [6]. The aim of enrichment is provoke specific behavior, while the success of the training is when an individual reacts on the initiative of the (only) a kind of behavior [1].

MATERIAL AND METHODS

The questionnaire were sent to zoos for the evaluation of social enrichment realised for large felinesbreedin Czech and Slovak ZoosUnion. Breeders and keepersfilled questionnaire out, the contained 12 questions. Individual questions were assessed individually. Questions related not only to social EE, but also were about the keepers. The questionnaire wasevaluatedin per cent and sum. 19 zoosare include in Union of Czech and Slovak Zoos. 13 zoos provideddata (Bojnice, Bratislava, Brno, Košice, Dvůr Králové nad Labem, Hodonín, Jihlava, Liberec, Olomouc, Ostrava, Prague, Pilsen and Ústí nad Labem). 6 species of large felines (Pantherinae) and 1 species taxonomically belongs to a subfamily of small felines (Felinae)were obtained, total were monitored 93 animals, 48 were males and 45 were females. We get infomations about different species and animals per species: 5 clouded leopards (Neofelis nebulosa), 14 snow leopards (Panthera uncia), 26 tigers (Panthera tigris), 14 wereSumatran tigers(P. t. sumatrae), 4 white Indian tiger (P. t. tigris), 4 Amur tigers(P. t. altaica) and 4Malaysian tiger (P. t. jacksoni), 24 were leopard (Panthera pardus) -(Chinese leopard (P. p. japonensis) - 4, Amur leopard (P. p. orientalis) -2, Sri Lankan leopard (P. p. kotiya) - 13, Persian leopard (P. p. saxicolor) – 5), jaguar (Panthera onca), 13 werelions(Panthera leo) – (Indian lion (P. l. persica) -4, Berber lion (P. l. leo) - 3, Congo lion (P. l. bleyenberghi) - 2, South African lion (P. l. *krugeri*) − 2) and 7 cheetahs (*Acinonyx jubatus*). Questions are presented in results.

RESULTS

More than ½ of the big cats and cheetahs breed in zoos werebreed by mans. More than ½ breeded individuals are under care of keepers who work in their field for more than 5 years. Only 32 animals from 93 treated keepers with less experience than the 5 years. Keepersin canivore sector are not working for a shorter period than 1 year currently in any zoo in the UCSZ.

What is the most commonly observed behavior?

The results showed 33 of the 93 animals(35.5 %) was quiet and 18 curious and friendly (19.4 %) to the people, aggressive reacted 11(11.8%), Sumatran tiger were the highest agressive representants. Quiet was characterized by according to the results irbis. Curious was the most distinguished Sumatran tiger and irbis. Eccentric, formulaic or misbehaving individuals were only three representatives of the Persian leopard, tiger and cheetah, and fussy were about 15 individuals (16.1 %). As friendly was characterized alwaysat least one individual of each subspecies, most however again snow leopard. But as the anxious animals, with interest, with fear and bewildermentalso, we could mark yet again the Sumatran and Malayan tiger and clouded leopard.

Has animalpossibility contact keeper?

Possibility of contanctindicated 100% animals. More than ½ of the breed individuals had the ability to interact with humans, as well as through the glass (57 %). We could say that the animal breeding establishments combined using a grille with glass and large carnivores have at least partial limited contact with his keeper in general.

Do you use social enrichment?

A social enrichment was not used by ½ of the animals, partly because it don't allow keepers the status of breeding facilities. With 25.8% of individuals (24 from 93) were also used, although it would be the current status of breeding facilities allow. Social enrichment is currently practiced for 16 individuals. Specifically for Chinese leopard with clicker; for South African lion, leopard, jaguar and Indian tigerwere used overflow corridors (10.8%).

HadS.E. response?

The reactions of 16 trained individuals will partly reflect their behavior. It is possible to record a positive reaction. Animals are calm, friendly to keepers, according to the visitors or are curious. In contrast, the negativity and negative reaction to social enrichment occurs in otherwise aggressive, anxious or eccentric individuals.

How often wasS.E. (training) applied?

Dailywas enrichment used by 6.5%, 1 - 2 per a week 2.2%, 2 - 4 times per a week, 5.4%, 1 - 2 time per month 3.2%. According to the responses of individual keepers already mentioned by 16 individuals, a social EE were practiced using overflow corridors per day for 6 individuals, 2 - 4 x per week for two individuals, and for the remaining two individuals only 1 - 2 x a month. Clicker was used for the Chinese leopard 1 - 2x per month and with the other 5 individuals is further unspecified EE practiced 1 - 4 times a week.

Had social enrichment effect?

The enrichment helped improve the work with individual 15.1%. Social enrichment has been effective for a total of 14 trained individuals. Positive effect had on the behaviour of the individuals and the willingness to cooperate in training. Chinese leopard and Berber lion had negative reactions and aggressive.

Newcomers: was trained in the past?

We passed informations about training by 7.5% animals, without the information were 7.5%, no trainedwere 53.8% animals, we get no data in 31.2%. ½ of the animals had never been trained. Only seven individuals were trained in the previous zoo, but the information was not passed to the new training. Two individuals who have also been trained in the old zoo were involved in a training program in new zoo as part of the enrichment. For the other kept individuals (the remaining 31.2%), unfortunately was not given a date for some.

Newcomers: came with keepers?

The negative response 68.8% was answered by keepers, when new animal arrived and in breeding were not accompanied by their keeper. For other individuals (the remaining kept 31.2%) was not given a data.

Newcomers: keeper contributed to the acclimatization of the animal?

The answers were totally negative in 68.8 %. Since no individual was not accompanied by an keeper or could contribute to their short residency in order to better help the acclimatization in the new environment. For other unanswered individuals (the remaining 31.2%) again, data were not provided.

Newcomers: how long took acclimatization?

The most common answer to the length of the acclimatization newcomer individuals was approximately one month 24.7 %. So long acclimation was implemented on 23 individuals from 54. Only 3 individuals have acclimatized almost immediately after arrival and during one day (3.2 %). The weekly has been recorded for the acclimatization of 19 arrived individuals (20.4 %). Acclimatization was longer than a month in 9 individuals (9.7 %) and keepes took half a year for some other individuals. One clouded leopard acclimatized a few years. Species or subspecies diversity did not affect length of acclimatization according to the results. The data was not given about other breeded individuals (42%).

Newcomers: vou continued in training?

Keepersworked with 11 previously trained individuals. Other keepers answered negative, even for reasons previously training and unconforming terms and conditions point to continue training. For the rest of the animals (35.5%) were not provided data.

Newcomers: changed the behavior in comparison upon arrival?

Behavior changeswere observed upon arrival at the 40 individuals. 35 animals changed positive and only 5 individuals negative. Without a change was recorded 20 individuals. Change the environment had for these animals no negative or positive effects. For the rest of the individuals (35.5%) were not provided data.

DISCUSSION

According to the results were recorded a rather negative opinion of the keeperson use of social enrichment and training, although according to [7] contribute increase training cooperation, an individual with a keeper. According to interviews with keepersis their reasons vary. The question of what is actually a training benefit. Among keepers is still in progress and some of the advantages of training, such as easier implementation of veterinary inspection are increasingly recognised. Positive training also offers specific techniques for resolving and managing fear of animals [3]. The incidence of abnormal behavior reduces to facilitate breeding and implementation of veterinary inspection, improves the positive relationship to individuals also [9]. Efforts to determine whether the training is

rewarding, they constraine by issues such as "What exactly we mean by training will be?" [5] have various methods, which proves that the training is rewarding. One of them is that the training is a stimulating and dynamic change daily provides.

AKNOWLEGEMENTS

We would like to thank all the staff (leadership, zoologists and keepers) of zoos within the Union of Czech and Slovak zoological gardens and other institutions who helped with by filling in a questionnaire and advice. Thank you for your helpfulness, willingness and patience with the filling in of questionnaires, the possibility of personal visits to the zoo and also from some of the zoo for sending completed questionnaires. Specifically, employees of the zoos in Liberec, Prague, Pilsen, Ústí nad Labem, Dvůr Králové nad Labem, Brno, Jihlava Hodonín, Ostrava, Lešná Zlín, Olomouc from Czech Republic, and zoo Bratislava, Bojnice and Košice in Slovakia.

REFERENCES

- 1. Hare, V. J., McPhee, M. S., 2000, Is it training or is it enrichment?[online]. In: The Shape of Enrichment. 2000 [cit. 2012-09-24]. [online],http://www.enrichment.org/MiniWebs/Temp/Training_or_EE.pdf.
- **2.** Houssaye, F. and Budd, J.E., (eds.), 2009,EAZA Leopard Panthera pardus spp. Husbandry Guidelines, EAZA Felid TAG, European Association of Zoos and Aquaria, Amsterdam, Netherlands. p. 150.
- **3.** Laule, G., 2005, The role of fear in abnormal behavior and animal welfare Proceedings of the Seventh International Conference on Environmental Enrichment, New York, 120-125.
- **4.** Lukas, K. E., Marr, M. J. and Maple, T. L., 1998, Teaching operant conditioning at the zoo, Teach. of Psychol., 25,112 116.
- **5.** Melfi, V., 2006, What makes an effective enrichment?, Proceedings of the 1st UK and Ireland Regional Environmental Enrichment Conference, Paington, 33-39.
- **6.** Mellen, J. D., Ellis, S., 1996, Animal learning and husbandry training. In: Kleinman, D. G., Allen, M. E., Thompson, K. V., Lumpkin, S., Harris, H. 1996, In: Wild Mammals in Captivity: Principles and Techniques, Chicago, 88-99.
- **7.** Pappas, K., 2009,Big Cats [online]. Zookeeper's Journal. 2009 [cit. 2012-10-09]. http://zookeepersjournal.com/wiki/index.php?title=Big_Cats.
- 8. Pappas, K., 2010, Social Enrichment Big Cat Training [online]. Zookeeper's Journal. 2010 [cit. 2012-10-12], http://zookeepersjournal.com/wiki/index.php?title=Social_Enrichment_Big_Cat_Training.
- **9.** Whittaker, M., 2005, Applied Problem Solving to Diminish Abnormal Behavior. Proceedings of the Seventh International Conference on Environmental Enrichment, New York, 126 131.