

The Actual Situation and the Attitude of Visitors toward Feeding of Wild Animals in the Japanese Suburban Forest

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Introduction

Feeding of wild animals takes various forms from rare species conservation to tourist attractions in all parts of the world (Dubois & Fraser, 2013). Feeding gives joy to humans as a type of the outdoor recreation. On the other hand, effects on ecosystems such as dependence on artificial feed, unnatural expansion of populations, or behavioral change in migratory birds cause concern (Orams, 2002).

Further, feeding bridges the distance between the person and the wild animal, and this can be seen as a negative or positive factor. Some believe that the opportunities for contact with the wild animal brought by feeding are useful for environmental education. On the other hand, evidence that feeding can lead to an animal becoming aggressive toward other animals and humans, because of competition for the feed, and that feeding increases the risk of spread of infectious diseases between man and beast are concerning.

In Japan, the number of local governments prohibiting feeding of wild animals in municipal bylaw has increased recently. Feeding of brown bears, wild boars, and Japanese monkeys for recreational purposes is prohibited in some municipalities.

In Sapporo City, feeding of squirrels and wild birds in the suburban forest is causing concern, and conflict with other visitors is increasing (Aikoh & Wei, 2013). The manager cannot take specific countermeasures, because feeding is not prohibited in the suburban forest. Therefore, it is becoming necessary to understand the attitudes of visitors for feeding.

In this study, we investigated the actual situation regarding feeding of wild animals in a suburban forest, and visitors' attitudes towards feeding activities, proper distance from wild animals, and the necessity of countermeasures against feeding. We aimed to propose suggestions based on our results for the future management of the suburban forest in Sapporo city.

Method and Research Site

In this study, we looked at nature trails in Maruyama Park of Sapporo City where the influence of feeding on small animals and wild birds was causing concern.

We surveyed the nature trail regularly for 60 days for one year from the autumn of 2014 and recorded the frequency of leftover of feed, the kind of feed, the animal that appeared, a number and location of the visitor who fed the animal.

In addition, we distributed a questionnaire to visitors to the nature trails and asked that it be filled and returned by mail. The questionnaire included questions such as personal attributes, attitudes toward wild animals, attitudes to feeding, views on the desirable distance from wild animals, and necessity for countermeasures against feeding.

Regarding the desirable distance from the wild animal, we applied a method to measure the social norm of acceptable change (Kim & Shelby, 2006) and asked respondents to evaluate an illustration showing varying distances between a wild animal and humans. In Maruyama Park, we distributed 500 copies each in June and October and received 548 copies of valid returns.

Result and Discussion

In a periodical survey, we identified leftovers at 7.2 feeding spots of feeding on average per a survey visit (434 spots for 60 days), and 2.25 people fed the animal per a survey visit (90 people for 60 days). Sunflower seeds, walnuts and pumpkinseed made up most of the feed observed. The animals attracted by the feed were mainly squirrels, small birds, and chipmunks.

In the questionnaire survey, feeding of a wild animal was mainly considered negatively. The dependence of an animal on the feed and the aggressive behavior of an animal toward other animals and humans were the issues most often mentioned as concerning. A small number of respondents considered feeding as a fun activity that increased the opportunity for contact with wild animals.

The desirable distance from the wild animal varied according to the species of the animal (Fig.1). Respondents recognized that a distant encounter with a brown

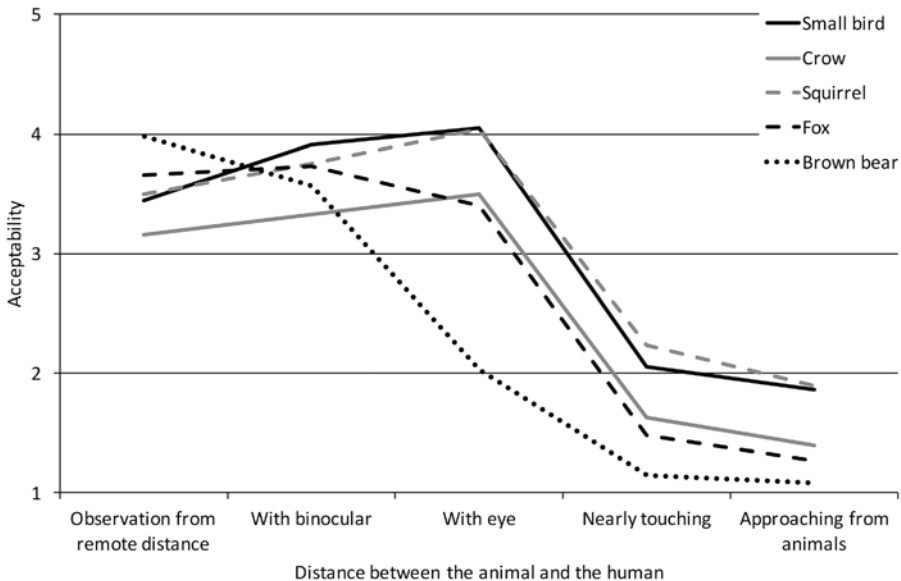


Figure 1. Norm curves for the distance between wild animals and humans.

bear was the most desirable. For small birds or squirrels, respondents recognized that a distance close enough to view the animals with the naked eye was desirable. Acceptance of reducing distances between animal and observer was lower for the brown bear than for the small bird or the squirrel. The norm crystallization for the brown bear was the highest.

More than 80% of the respondents thought that a countermeasure to feeding was required. Indirect methods, such as the provision of information, were expected for feeding of small animals and a severe countermeasure such as some penalty was expected for feeding a brown bear or a fox.

Respondents who considered the influence of feeding as favorable felt that closer distance to small animals was desirable and that preventing feeding was not necessary.

Conclusion

Feeding of wild animals was perceived negatively by most of the respondents and countermeasures were recognized as necessary, but attitudes varied depending of the species of the animal. Some respondents were in favor of feeding, and their views on countermeasures were different.

The manager has to examine countermeasures considering these disparities. The manager might start with direct countermeasures to feeding of brown bears and foxes to which visitors are likely to easily agree, whereas it is desirable to take indirect measures such as data collection on the influence of feeding and the provision of information to visitors about feeding of squirrels and small birds. Further studies are necessary for other locations and species in future.

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