Behavior, wild diets and weight gains of supplementally-fed black bears in northeastern Minnesota

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Introduction
People are increasingly moving into black bear (Ursus americanus) habitat, seeing more bears, and often feeding them intentionally or unintentionally. There are many untested beliefs about the effects this supplemental feeding has on bear behavior, food preferences, natural foraging activities, relations with humans, and longevity. This study compares bears receiving supplemental food with those in a nearby study area where bears were not supplementally fed (Rogers 1987, Rogers, unpublished data).

This ongoing study explores effects of supplemental feeding on:
- Territoriality and social organization
- Wild foraging patterns
- Preference for natural versus human foods
- Seasonal changes in use of supplemental foods
- Weight gain
- Habitation and reactions to people
- Mortality

Methods

Study Area
- A rural community of over 300 households within a 200 km² area where approximately 3% of those households regularly feed bears (Fig. 1)
- Adult and 7-year-old adult male black bears

Sub-adult Male

Results

Behavior
- Adult females defended individual territories (Fig. 2)
- Yearlings ranges were primarily within their mother’s territory (Fig. 2)
- Territory sizes (Table 1) not significantly different from Rogers (1987)
- Adults maintained discrete bedding areas near feeding stations (Fig. 2a)

Discussion

Several homeowners within the study area have been feeding black bears for over 25 years. While we do not recommend feeding bears, our studies indicate many beliefs about the negative consequences of feeding bears are unfounded.

While some bears seemed ‘tame’ at feeding stations, they did not approach people in other parts of their ranges. In the 16 years Minnesota DNR has kept records of nuisance bear activity, no complaints have been registered from the study area. In years of scarce natural food, the feeding stations may have functioned as buffers against nuisance activity.

At several feeding stations, unlimited supplemental foods were made available to bears throughout their active seasons. Nevertheless, bears gained little weight during May and June and adult males lost weight during this time. Rapid weight gains began in July as mating season ended and wild berries began to ripen.

Study bears established territories along matriarchal lines with yearlings occupying ranges within their mothers’ territories as described in an earlier study of non-fed bears (Rogers 1987). Adult females crossed their mothers’ territories to reach feeding stations and maintained discrete bedding areas near the stations.

Feeding on supplemental foods increased as wild food became scarce. Bears appeared to use supplemental foods as they would a concentrated wild food source such as a beech, oak or hazelnut stand. Supplemental feeding did not prevent bears from hibernating. During September and October, all bears abandoned abundant supplemental food and settled down for the winter.

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References

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