

Food for thought

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Millions of people tend bird feeders in their backyards each year, often out of a desire to help the animals. But a new survey of research on the topic finds that feeding may not always bring a positive outcome for the birds.

Published as a *Frontiers in Ecology and the Environment* e-View paper, the meta-analysis led by Gillian Robb (Queen's University Belfast, UK) and by Stuart Bearhop (University of Exeter, UK) reviewed results from more than 50 pieces of research conducted over the last decade.

In many cases, bird feeding was shown to have immediate positive outcomes. A number of studies indicated, for example, that chicks which were given supplemental food were far more likely to fledge than those that were not given extra food.

But feeding is a complex business and can lead birds to make poor decisions later in life. Attractive feeders can become ecological traps, encouraging birds to settle in an area that cannot support them once supplemental feeding has stopped. In those cases, feeders create a population level that cannot be sustained by natural levels of food.

There are also times when feeding can affect the timing of a bird's life in unexpected ways. One study, for example, showed that Florida scrub jays breeding in suburban habitats with access to supplementary food breed earlier, but find themselves out of sync with natural food items which are important when rearing nestlings. This means the extra food can lead to a decrease in breeding success rather than an increase.

Surprisingly, the research team also found evidence in several studies which indicated that the flurry of activity caused by bird feeding does not increase the birds' risk of predation. Counter-intuitively, the presence of feeders has been associated with lower levels of predation by domestic cats.

Robb and Bearhop say that the wide variety of outcomes they discovered in their work point to a real need for more comprehensive research on the topic. Although bird feeding itself may seem somewhat marginal, an incredible number of people do it. Surveys conducted in the US in 2003 revealed that more than 43 percent of those asked give birds some kind of food. In the UK, surveys indicate that as much as 75 percent of the general public feeds the birds.

“Changing the natural dynamics of food supply at such a large scale represents a major intervention in the ecology of birds,” says Robb. “But we have a remarkably limited understanding of the impacts of bird feeding.”

There have been relatively few studies conducted which incorporate urban and suburban yards, for example, and very few studies have run for more than one or two years or considered more than one species. Robb and Bearhop plan to continue their investigations at field sites in Northern Ireland and Cornwall.

“It seems highly likely that natural selection is being disrupted,” Robb says.

Source: Ecological Society of America

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