BBC Wildlife

Who's afraid?

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DISCOVERIES

COMMUNICATION ● While their parents are away hunting, barn owls in the nest negotiate with each other over access to the next meal.

Enter baby talks

Parent barn owls spend much of the night hunting small mammals, returning to their brood about once an hour with a single prey item. Unfortunately, this will satisfy only one of their offspring, while up to eight others must go hungry until the next trip. Deciding which begging mouth to feed first must be tough, but according to new research from Switzerland, it is the nestlings themselves that determine the choice.

Though left alone for extended periods, owl nestlings beg intermittently throughout the night. What could be the point of continuing this behaviour in their parents' absence? Alexandre Roulin and colleagues from the University of Bern wondered whether the nestlings were negotiating among themselves over the next food delivery. To test their theory, the scientists temporarily removed all but two offspring from nestboxes. During daylight hours, one nestling was kept well supplied with dead mice, while the other was not fed at all. At night, the parents were allowed normal access, and the begging behaviour of their offspring was recorded using an infrared-sensitive video camera and a microphone.

In the absence of its parents, the hungry nestling was far more vocal than its well fed sibling, and when a parent arrived with food, it was more likely to be fed. The scientists believe that begging calls may act as a signal to nest-mates to indicate how highly an individual values the next food item. A recently fed nestling is less eager to contest a meal, and by keeping its beak shut, not only reduces the risk of a bust up with its sibling, but also saves valuable energy (*Proceedings of the Royal Society of London B*, vol. 267, pp459-63). **DAN EATHERLEY**

Twin beaks. The begging calls of barn owl nestlings may signal hunger to their nest-mates as well as their parents.

John Robinson/Woodfall Wild Images

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Laurie Campbell/NHPA

SOCIETY ● Why 'helpers' are sometimes more of a hindrance.

Badger of quality

The old saying 'many hands make light work' doesn't necessarily apply to badgers, according to recent research from the UK.

In some group-living animals, non-breeding individuals help to care for the offspring of their relatives. Previous studies have shown a positive correlation between the number of so-called 'helpers' and the reproductive success of the group. But mammalogists Rosie Woodroffe and David Macdonald from the Wildlife Conservation Research Unit in Oxford now caution against drawing a direct link between these two factors.

In a long-term study on a local population of badgers, Woodroffe and Macdonald assessed the number of non-breeding females present in different social groups over several years. They found that those groups with the most helpers in a particular year did rear more cubs to the yearling stage. But, the biologists also took a close look at a third variable: the quality of each badger group's territory.

As expected, groups with high-quality territories (rich in earthworms) produced the most cubs and also had the most non-breeding helpers. But when Woodroffe and Macdonald took territory quality into account, they found that, rather than improving the reproductive output of a group, the presence of more helpers had negative effects. Perhaps, say the scientists, this is the result of breeding females suffering from competition with helpers for resources (*Journal of Zoology*, vol. 25, pp113-9). **DAN EATHERLEY**