RRES Press Release 22 May 2024 **Swifts have potential to make a valuable contribution to insect control**

*Encouraging this charismatic and once common bird could help manage crop pests*

A new study comparing small balls of food fed by adult swifts to their offspring with trap data from the Rothamsted Insect Survey, suggests that the birds could make a useful contribution to pest suppression – particularly if their numbers could be increased.

The balls of food (boluses) were analysed to work out what insects they contained and found to have a high preponderance of agriculturally important species, including pollen beetles and cabbage stem flea beetles. These specimens were compared to the numbers sampled on the same day in the nearest Rothamsted suction trap (part of the UK National Insect Survey). These beetle species are also larger than other species sampled in the area on that day.

Food boluses are small ball-like structures containing the insect prey that are regurgitated to nestlings. Boluses from adult swifts provisioning their nestlings were collected during annual ringing by birding experts at a breeding colony in Suffolk. These were taxonomically identified and compared to corresponding daily insect catches from a nearby Rothamsted Insect Survey suction trap operating within the foraging area of common swifts.

These findings suggest that the birds are actively seeking out larger species of insects, probably to maximise their food foraging returns. Conversely, smaller pest species like aphids and thrips were not as frequent in the bolus samples as in the traps.

“We have long known that birds like swifts consume large quantities of insects,” said Hannah Romanowski who led the research. “What this study suggests for the first time is that, compared to randomly trapped specimens, they are selectively feeding on larger crop pests. This suggests that they could be immensely valuable as part of a more ecologically focussed pest control strategy.”

The common swift has experienced significant declines in the UK since the 1990s and reductions in the availability of prey during their summer breeding season in the UK are likely to be a key factor in this.

“These results suggest that far more attention should be given to conservation measures designed to encourage swifts in agricultural landscapes” says Romanowski. “The farm where we did the study is specifically managed with a ‘for nature' philosophy, so attracts a healthy population of birds like swifts. Hopefully there will be a wider uptake of these approaches in future allowing us to collect much more data on how carefully considered on-farm wildlife management can make a significant contribution to crop protection.”

**Publication**

Romanowski, H., Jowett, K., Garrett, D. and Shortall, C. (2024), Swift sampling of farmland aerial invertebrates offers insights into foraging behaviour in an aerial insectivore. Wildlife Biology e01294. <https://doi.org/10.1002/wlb3.01294>