Dear editors,

We enclose the manuscript “Non-crop sources of beneficial arthropods vary within-season across a prairie agroecosystem” to be considered for publication in *Agriculture, Ecosystems & Environment*.

In this paper, we present a novel approach to answering the following question: *What types of landscape features constitute useful habitat for beneficial predatory arthropods?* We also consider how landscape features may act as a source or a destination for arthropods at different times of the growing season. Using data from a large set of pitfall traps located across an agricultural regions of Alberta, Canada, we related the abundance of four common predatory arthropods to the surrounding landscape composition. We used functional regression to reveal both the spatial scale and timing of the effect of surrounding land cover classes, and allow inference on large-scale movement patterns of predatory arthropods between cover classes.

In the Results section, we show that that ground beetles (*Pterostichus melanarius*) and wolf spiders (*Pardosa moesta*) were attracted to canola crops (*Brassica napus*) during the early part of the summer, and then migrated to grasslands and wetlands at the end of the season. These habitats may act as “reservoirs” for predatory arthropods in agroecosystems, and suggest that farmers should preserve existing habitat in order to maintain free pest-control services.

We believe that this manuscript would be of great interest to your readers, as it demonstrates a new approach to modelling animal abundance and movement in agroecosystems, and suggests new avenues of research, as well as applications for farmers and land managers. Thank you for your consideration, and we look forward to hearing from you.

Sincerely,

Samuel Robinson

Diane Edwards

Jess Vickruck

Lincoln Best

Paul Galpern