What can ornithologists tell us about global insect decline?

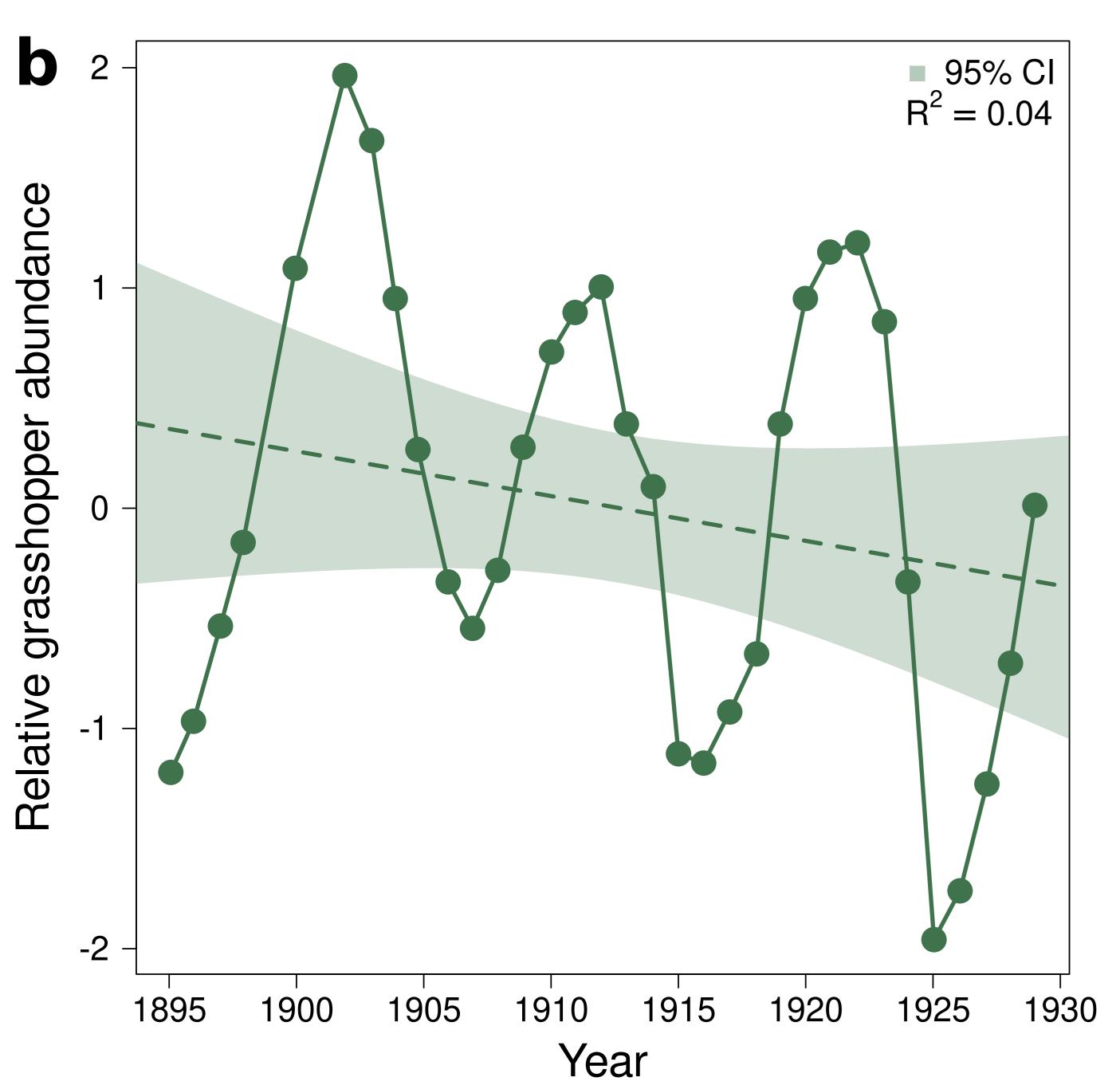
Eliza M. Grames, David L. Wagner, and Chris S. Elphick University of Connecticut, Storrs, CT

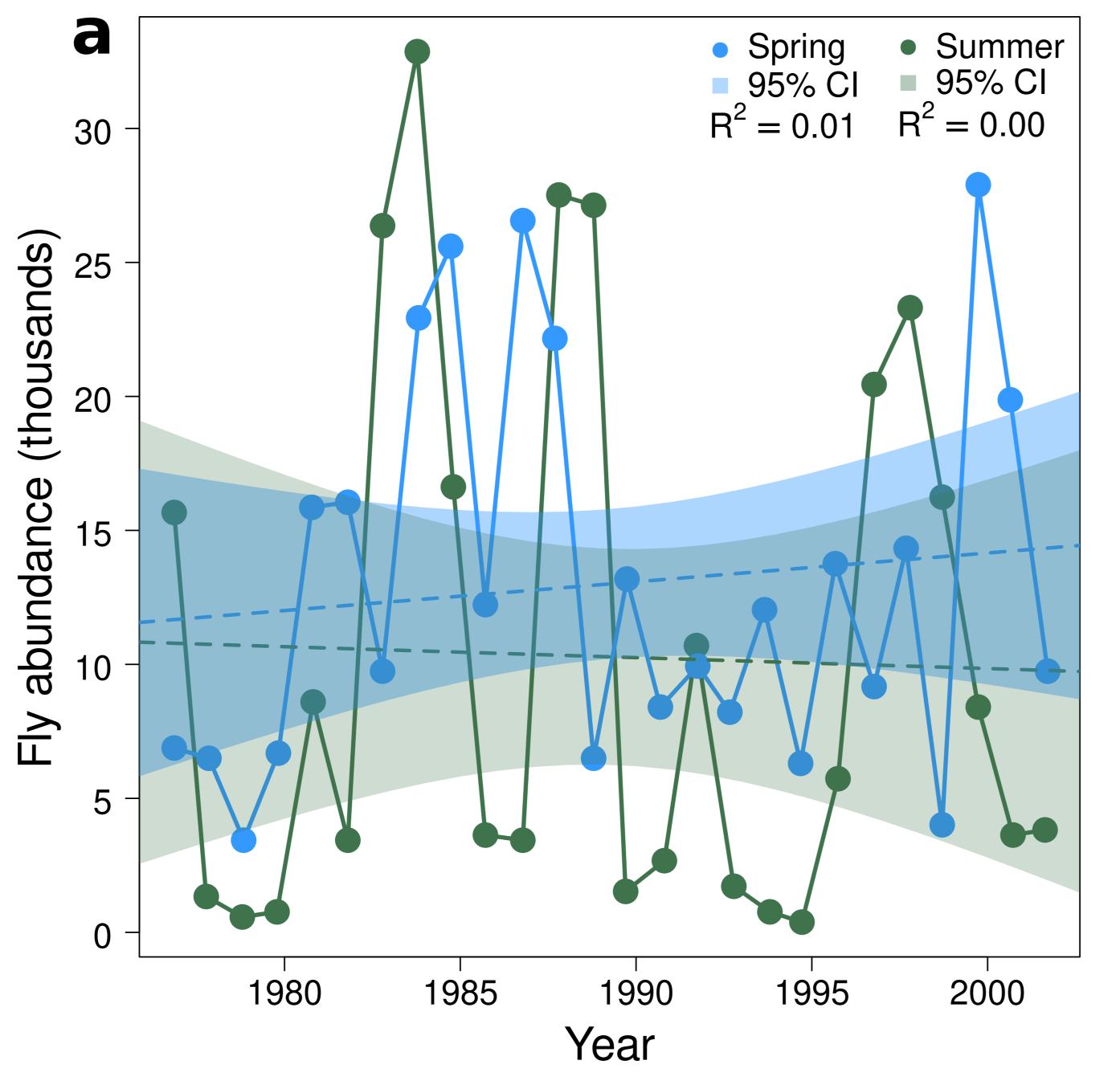


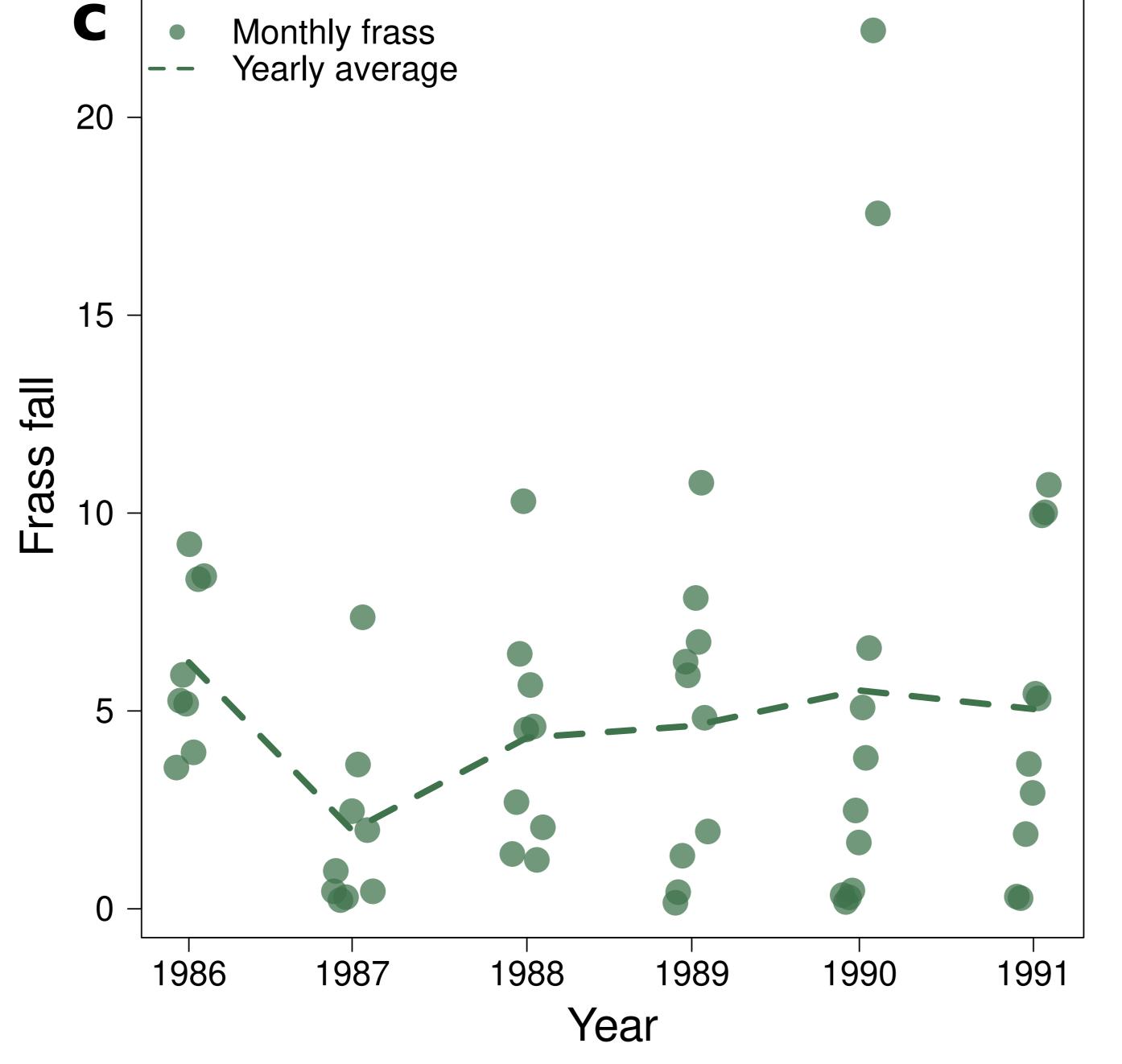


Ornithological studies documenting insect populations are often not cited by entomologists and many long-term insect datasets from ornithological studies have not been included in reviews or metaanalyses on insect decline, for example—

- a: black fly abundance measured over two decades as food for Harlequin Ducks (Gardarsson & Einarsson 2008),
- b: relative grasshopper abundance measured as a predictor of grouse population fluctuations in Manitoba over three decades (Criddle 1930), or,
- c: frass fall measured as a proxy for breeding season food availability for songbirds (Eeva et al. 2011).

















https:://elizagrames.github.io/NAOC2020

Bibliometric coupling analysis of cited references by a subset of articles taken from the EntoGEM database on birds and lepidopterans indicates that ornithologists and entomologists do not cite the same literature, even when writing on the same topic.

In the network below, each node represents one reference cited more by articles on birds (blue), lepidopterans (green), or cited similarly by both taxa (grey). Circle size indicates the relative importance of a reference and light grey lines indicate co-citations with other references in the network.



EntoGEM

EntoGEM is a community-driven project that aims to identify all studies and datasets, published and unpublished, that document longterm trends in insect populations.

The goal is to assess the current state of evidence in the scientific literature regarding insect declines, increases, or lack of changes over time and to provide a publicly accessible repository of this evidence in order to help prioritize research and funding, facilitate metaanalyses on specific taxa, and develop insect conservation policy.

Learn more about the project at https://EntoGEM.github.io

If you have data on insect populations for 2+ years, we want to know about it! Tell us about a dataset at s.uconn.edu/NAOCinsects