[1] Insect populations are challenging to study, and most monitoring methods are labor intensive and inefficient.

[1] When trained onthese data, deep learning models can provide estimates of insect abundance, biomass, and diversity.Further, deep learning models can quantify variation in phenotypic traits, behavior, and interactions.

[1] Deep learning is currently influencing a wide range of scientific disciplines (85) but has only just begun to benefit entomology.

References

[1] Toke T. Høye, Johanna Ärje, Kim Bjerge, Oskar L. P. Hansen, Alexandros Iosifidis, Florian Leese, Hjalte M. R. Mann, Kristian Meissner, Claus Melvad, and Jenni Raitoharju. Deep learning and computer vision will transform entomology. *Proceedings of the National Academy of Sciences*, 118(2):e2002545117, 2021.