ASSESSING THE BIODIVERSITY IMPACT OF UBC’s FOOD PROCUREMENT ACTIVITIES

Replicating the Nature Positive Universities framework
Vanessa Amorocho, Amy Bu, Aleah Wong

Food production contributes disproportionately to biodiversity decline and is responsible for:

- 70% of freshwater use
- 40% of all land converted for agriculture
- 90% of deforestation

Large organizations like universities have significant environmental footprints.

As a part of the Nature Positive Universities global network, UBC has committed to assessing and monitoring its biodiversity footprint.

WHAT WE DID

1. Matched UBC food products with foods in Oxford’s environmental impacts of food database using:
   - Poore and Nemecek 2018 database and Clark et al. 2022 methods
2. Calculated mid-point impacts
3. Converted to end-point impacts using model ReCiPe

WHAT WE DID

- Analyzed data from UBC Food Services
- For food procurement in 2022, documenting data availability
- Quantified environmental impacts of UBC’s food procurement
  - Using Oxford’s assessment methods (Bull et al. 2018, Taylor et al. 2022)
- Evaluated replicability of Oxford’s framework
  - And provided suggestions for robust future studies at additional universities
- Created recommendations
  - For UBC to reduce its food-related biodiversity impacts

HOW WE DID IT

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END-POINT IMPACTS

- Cumulative proportion of local species loss as a result of mid-point impacts

RESULTS

UBC procured the most grocery and beverage products by weight
Grocery and dairy categories had the highest mid-point and biodiversity impacts
Meat, poultry and dairy had the highest per-kilo impacts

We were able to replicate Oxford’s framework with some challenges

- Only 1 year of procurement data
- No consumption or waste data
- Imperfect and/or impossible matches

Recommendations:

- Better organization + documentation of procurement data, e.g. groceries → specific categories
- Change RFP for vendors to require more information about food products
- Expansion of food impacts database to increase local nuance
- Engage students on consumption choices, especially re: meat, poultry and dairy impacts
- Investigate the benefits of buying local and/or organic
- Consumption and waste analysis for smarter procurement; analysis of sectors beyond food

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