



Muir of Tarradale

URBAN OR RURAL FLORA

WHICH IS MORE DIVERSE in Easter Ross?

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Muir of Ord



Urban and Rural Flora

- Ten pairs of 100m squares were randomly selected in Easter Ross (VC106).
- In each pair one was urban and the other rural in the same hectad.
- If there was no access an immediately adjacent square was used
- Maximum of 40 minutes per square.
- Visited in Nov-Jan 2019-2020 and again in July-Aug 2021 by author
- All vascular plants that did not appear to have been planted were included.

Results

- URBAN: Nov-Jan. 237 records and 100 species
- July-Aug 286 records (21% up) and 104 species (4% increase)
- RURAL: Nov-Jan 215 records and 97 species
- July- Aug: 365 records (70% up) and 136 species (40% increase).
- The species totals were urban 143 and rural 159
- Aliens (neophytes) Urban 24 (16.4%) Rural 5 (3.1%)
- Commonest species: Urban: *Bellis perennis*, *Taraxacum*.
- Rural: *Ranunculus repens*, *Urtica dioica*
- Lists differed. Only 91 species recorded in both urban and rural squares

Discussion –including cautions.

- My previous prospective studies had not used fully random site selection and had not shown a clear difference in diversity between urban and rural sites. Other studies have used historical records and often suggested greater urban diversity.
- Caution is needed as many squares were only partly accessible because of buildings, gardens, growing crops, physical barriers, etc. Only approximately 23% of both urban and rural sites were fully accessible
- Rural squares were in the same hectad as the urban, and my previous surveys suggested that rural squares near towns may be more species rich than distant rural squares in this area.
- This survey was undertaken in north Scotland where the hilly landscape may produce a different picture from the plains of northern Europe, where there are likely to be large areas of rural monoculture.
- This was a small study. The towns were small (populations 1000-10,000)

Conclusions

Rural by Tain L
Invergordon R



- More species were identified in summer than autumn/winter as might be expected. Overall species totals did not differ significantly between rural and urban locations.
- The above seasonal trend was much greater in the rural than the urban squares. This could be related to urban microclimate, management practices including herbicides and/or the species mix. Herbicides in particular may be a major factor in explaining the low urban summer total. Another urban rural seasonal study had not shown this trend.
- It would be useful to do an urban comparison with more remote rural sites
- A prospective study of larger towns would be useful
- A reduction in herbicide use would be likely to benefit urban botanical diversity, although some management is always needed in urban settings.