

FOrest Biodiversity Index (FOBI) Tracker Report - Scotland 2023

Executive Summary

2023 FOBI headlines

- The Local Biodiversity Index increased both over the long term (2011-2023) and the short-term (2022-2023).
- The Landscape Biodiversity Index continues to increase over the long term.
- Changes in landcover classification in the CEH LCM dataset (used to calculate a range of landscape-scale metrics) had an impact on the 2023 results:
 - Landscape Permeability results are lower than previous years, but the scores should not be compared over time due to the change in methodology
- Metrics of note:
 - Native Woodland Cover increased by 64% between 2011 and 2023.
 - All Local Diversity metrics have increased over the long term (except Topographic Roughness), although the changes from 2022 to 2023 were minor.
 - The Landscape Extent Connectivity Index score showed a positive long-term change, due to a large increase in metrics such as Woodland Connectivity (82%), Woodland Cover (19%), Core Area (87%) and Woodland Size (67%) between 2011 and 2023. These metrics also show an increasing trend over the short-term.
 - Landscape Stand Structure Diversity, Stand Type Diversity, Landcover Diversity and Woodland Size Diversity also increased over the long-term, contributing to a 53% growth in the Landscape Diversity Index.

2023 FOBI national trends – overview

Table of national FOBI trends

Status key

Score change

↑	Increasing
→	No change (between -0.5 and 0.5 %)
↓	Decreasing

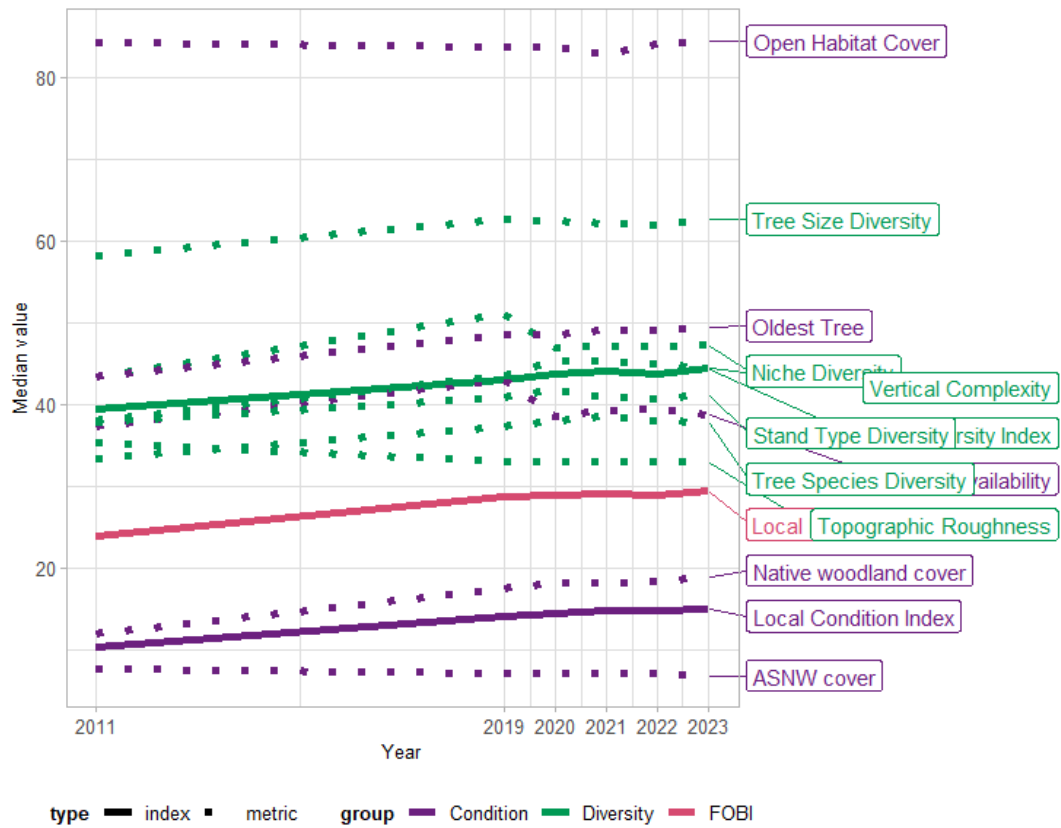
Statistically significant ($p \leq 0.05$) changes between years are highlighted in bold

FOBI indices and metrics	Long term trend (2011-2023)		Recent short-term trend (2022-2023)	
	Score change	% change in median	Score change	% change in median
Local Biodiversity Index	↑	23.48	↑	1.94
Local Condition Index	↑	45.41	↑	0.71
Native woodland cover	↑	64.05	↑	2.73
ASNW cover	↓	-11.20	↓	-3.21
Deadwood Production Capacity	→	-0.06	↑	0.56
Gappyiness	↑	6.06	↓	-0.80
Oldest Tree	↑	14.46	↑	1.06
Open Habitat Cover	→	0.19	→	0.40
Niche Availability	↑	3.89	↓	-1.62
Local Diversity Index	↑	12.84	↑	1.77
Stand Type Diversity	↑	5.63	↑	0.85
Tree Age Diversity	↑	18.22	↑	1.26
Tree Size Diversity	↑	7.85	↑	1.07
Tree Species Diversity	↑	9.26	→	-0.17
Vertical Complexity	↑	9.31	↓	-0.51
Niche Diversity	↑	9.14	→	0.32
Topographic Roughness	↓	-6.67	→	0.00
Landscape Biodiversity Index	↑	28.16	↓	-1.57
Landscape Extent Connectivity Index	↑	18.96	↓	-1.01
Landscape Woodland Aggregation	→	0.41	→	-0.01
Landscape Permeability	↑	52.45	↓	-12.93
Landscape Woodland	↑	82.15	↑	6.05

FOBI indices and metrics	Long term trend (2011-2023)		Recent short-term trend (2022-2023)	
	Score change	% change in median	Score change	% change in median
Connectivity				
Landscape Woodland Cover	↑	18.93	↑	1.62
Core area	↑	87.05	↑	0.73
Woodland size	↑	67.61	↑	6.15
Landscape Diversity Index	↑	53.46	↑	7.35
Landscape Stand Structure Diversity	↑	20.05	→	0.09
Landscape Stand Type Diversity	↑	5.13	→	-0.04
Landscape Landcover Diversity	↑	7.23	↑	1.26
Landscape Woodland Size Diversity	↑	30.47	↑	1.37

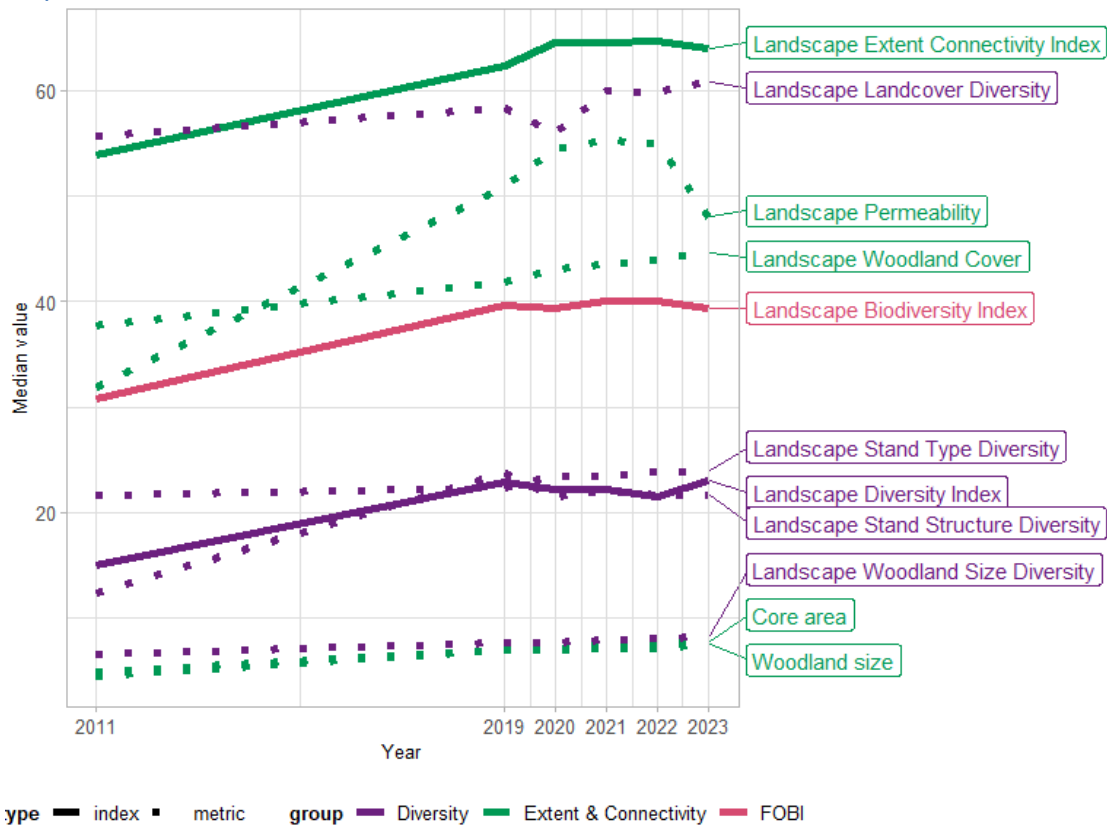
Timeline of national FOBI trends

Local



Timeline of median local FOBI metric and index values between 2011 and 2023, normalised to 0-100 scale

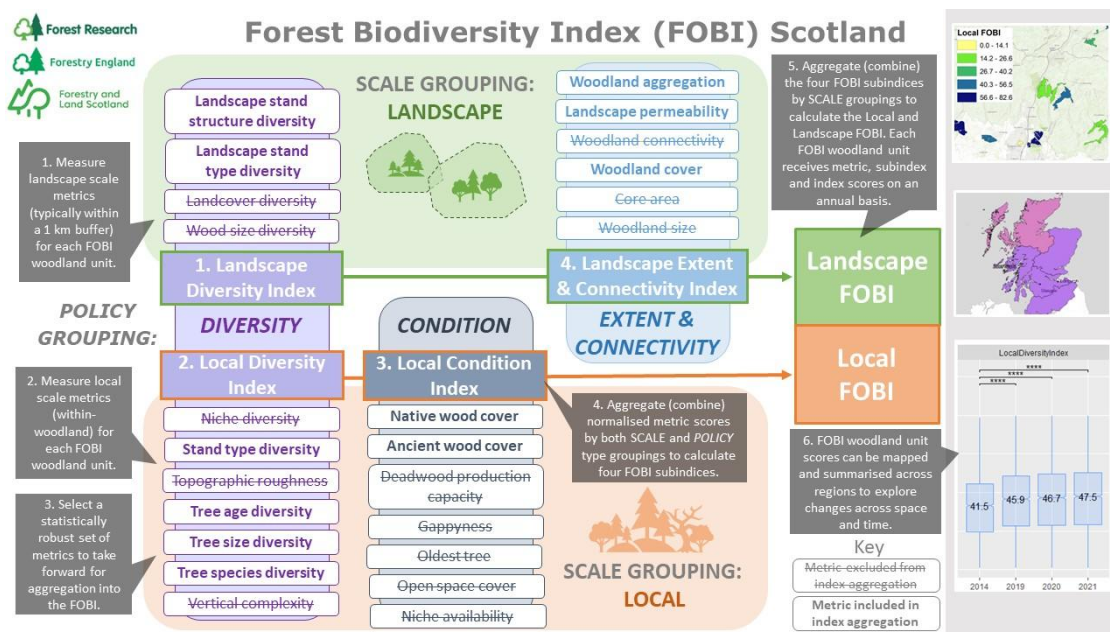
Landscape



Timeline of median landscape FOBI metric and index values between 2011 and 2023, normalised to 0-100 scale

FOBI Background

The FOrest Biodiversity Index (FOBI) has been co-developed by Forest Research, Forestry & Land Scotland and Forestry Scotland with the aim of providing an evidence-based, transparent and repeatable assessment of woodland biodiversity potential. The approach involves the annual measurement of a series of proxies of woodland biodiversity, which are referred to as 'metrics'. The FOBI metrics are measured for every public 'FOBI woodland unit', which are groups of adjacent sub-compartments, or stands, falling within the same public forest 'block' management zone. Measurements are made within the FOBI woodland unit ('local scale' metrics), or around the FOBI woodland unit (typically within a 1 km buffer; 'landscape scale' metrics). A selection of these metrics are normalised to a 1-100 scale before being summarised or 'aggregated' into four FOBI sub-indices (Landscape Diversity; Landscape Extent & Connectivity; Local Diversity; Local Condition). These sub-indices are then aggregated to provide a Local and a Landscape FOBI score. Outputs are provided on an annual basis to enable reporting on the biodiversity potential of public forests in Scotland and Scotland over time and space.



FOBI schematic More information can be found via our webpage: [The FOrest Biodiversity Index - Forest Research](#) and online [FOBI User Guide](#) which provides descriptions of each metric and FOBI indices, a “Frequently Asked Questions” page, and a glossary of terms.

FR, FLS and FE staff can also access the mapped FOBI results via:

- **Geostore and Forester Web:** the mapped outputs for all years calculated are available to interrogate and download.
- **FOBI Spatial Data Explorer (England/Scotland):** the mapped data for the latest year of calculation are made available via an online, interactive tool to allow users to explore, interrogate and download the biodiversity potential of public forests over space (between FOBI woodland units) in more detail.

Please contact [Andrew Rattey](#) to request access to the online, interactive tools.

2023 FOBI national trends – individual metric and index results

Local Biodiversity Index

Index description

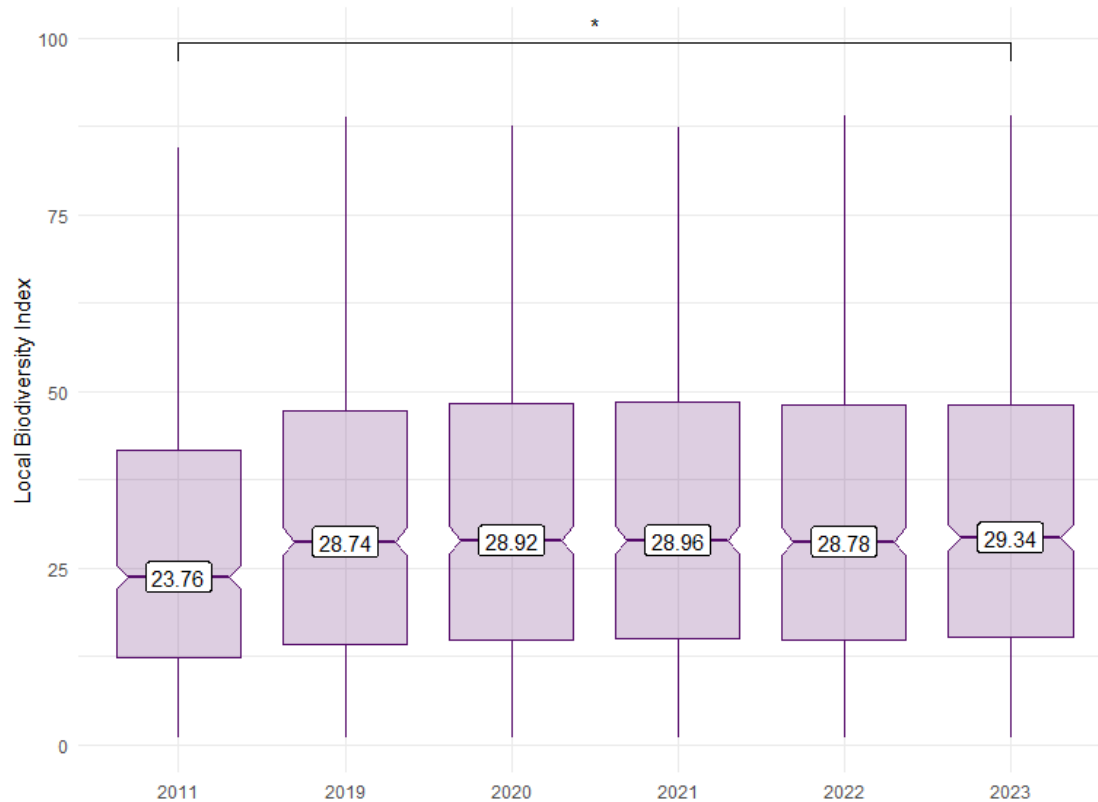
A single score resulting from the combination of the Local Diversity and Condition Indices. Each FOBI woodland unit receives a single score. Values can range from 1 to 100 (low biodiversity potential score - high score)

Summary of trend

Local Biodiversity Index Scores show an increasing trend over time, the 2023 scores were 23.5% higher than in 2011.

Change over time statistics

Boxplot



Boxplot of the raw Local FOBI index results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Local Condition Index

Index description

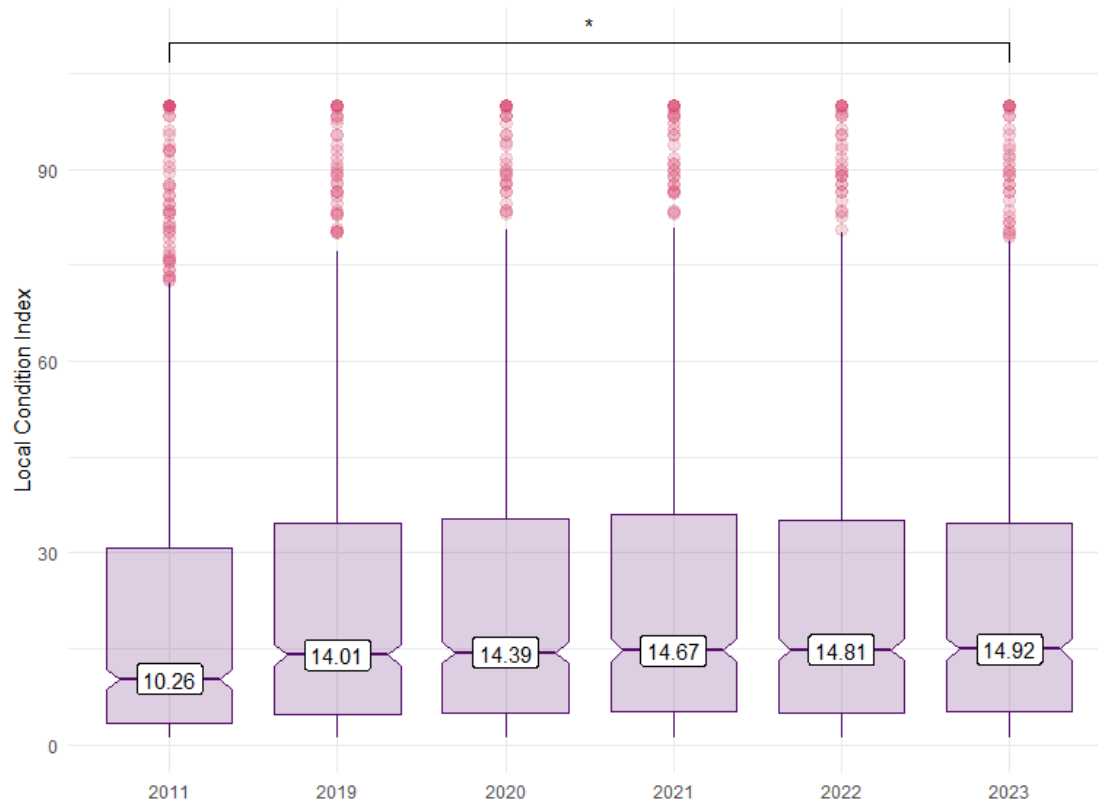
A single score resulting from the combination of all the local (woodland block) scale biodiversity metrics within the Condition Index Group. Each FOBI woodland unit receives a single score. Values can range from 0 to 1 (poor condition - good condition)

Summary of trend

Small year-to-year increases since 2019 but a 45.4% growth over the long term.

Change over time statistics

Boxplot



Boxplot of the raw Local Condition Index results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Native Woodland Cover

Metric description

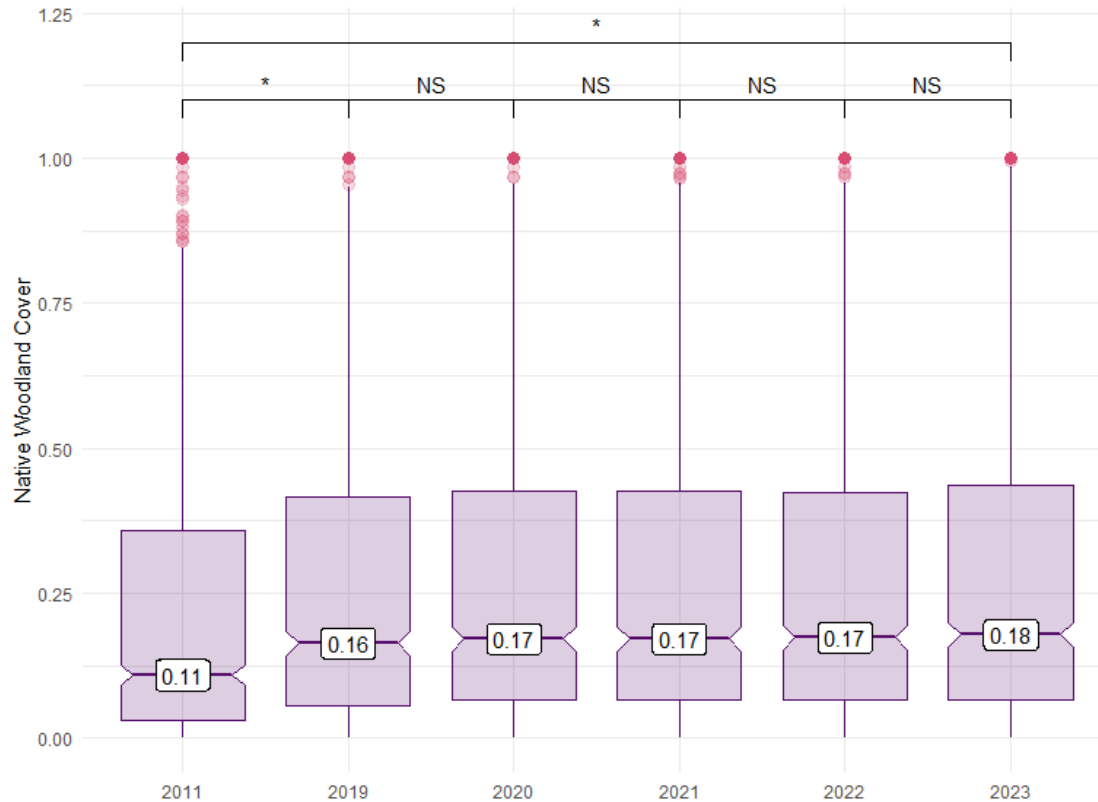
The percentage area of the tree canopy (excluding open and felled areas) that is comprised of stands classified as native woodland types across the FOBI woodland unit.

Summary of trend

Increasing on the long term, with minor changes from one year to the next but an overall increase of 64%.

Change over time statistics

Boxplot



Boxplot of the raw Native Woodland Cover metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Ancient Woodland Cover

Metric description

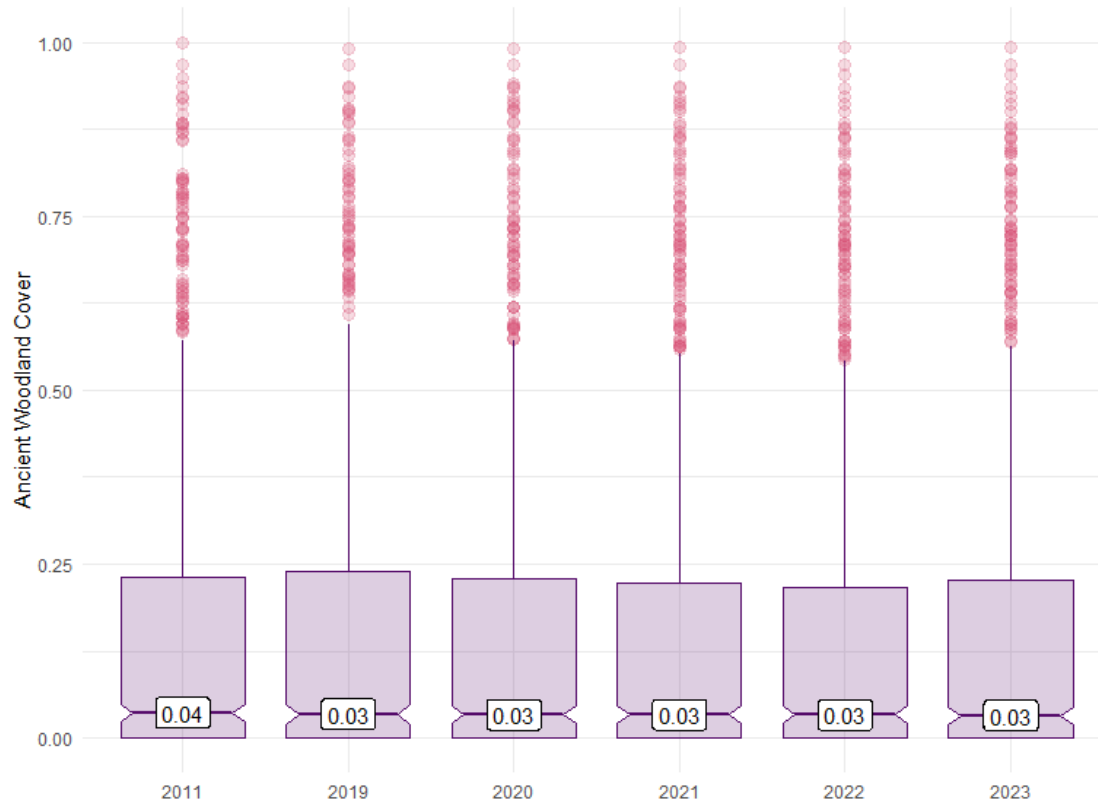
The percentage cover of mapped ancient semi-natural woodland across the FOBI woodland unit.

Summary of trend

No significant change over time.

Change over time statistics

Boxplot



Boxplot of the raw Ancient Woodland Cover metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Deadwood Production Capacity

Metric description

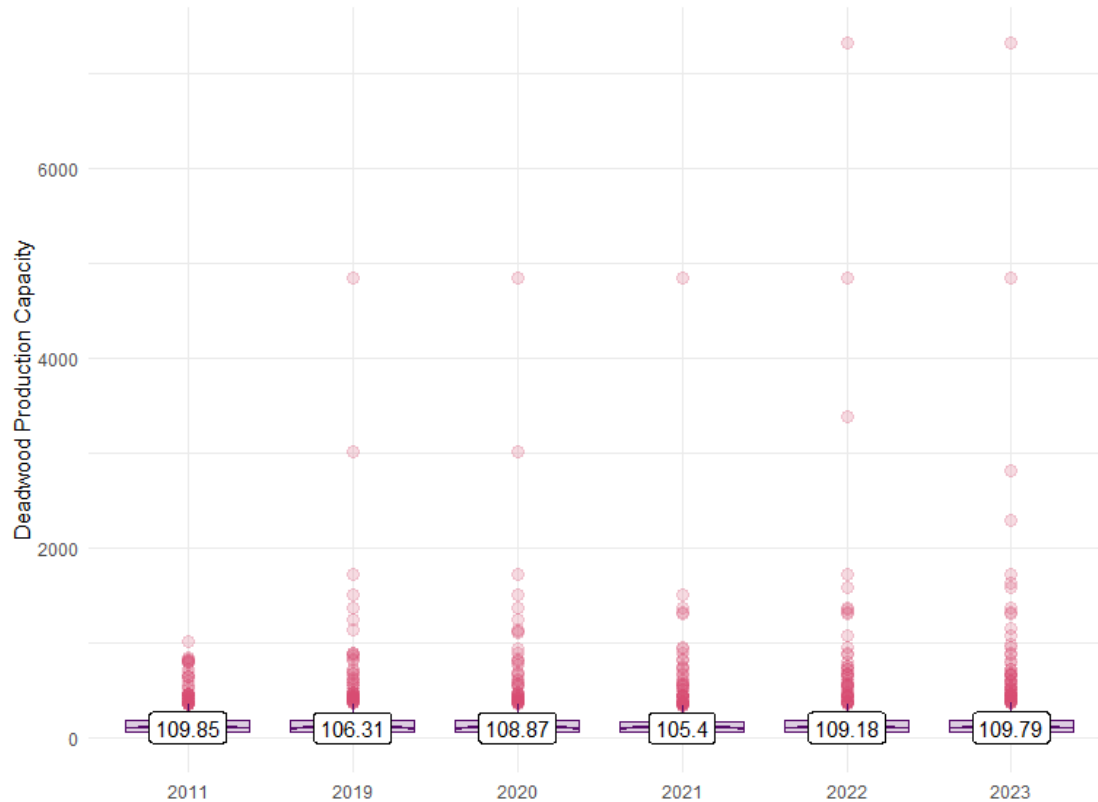
The volume of deadwood per unit area estimated to arise across the FOBI woodland unit from several sources using the Forest Yield model: clear-fell of the previous rotation, or, competition mortality in unthinned stands, felling and thinning operations, and windblow in the current rotation.

Summary of trend

No significant change over the long term, but fluctuations from one year to the next, with an increasing trend in the last two years.

Change over time statistics

Boxplot



Boxplot of the raw Deadwood Production Capacity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Gappyness

Metric description

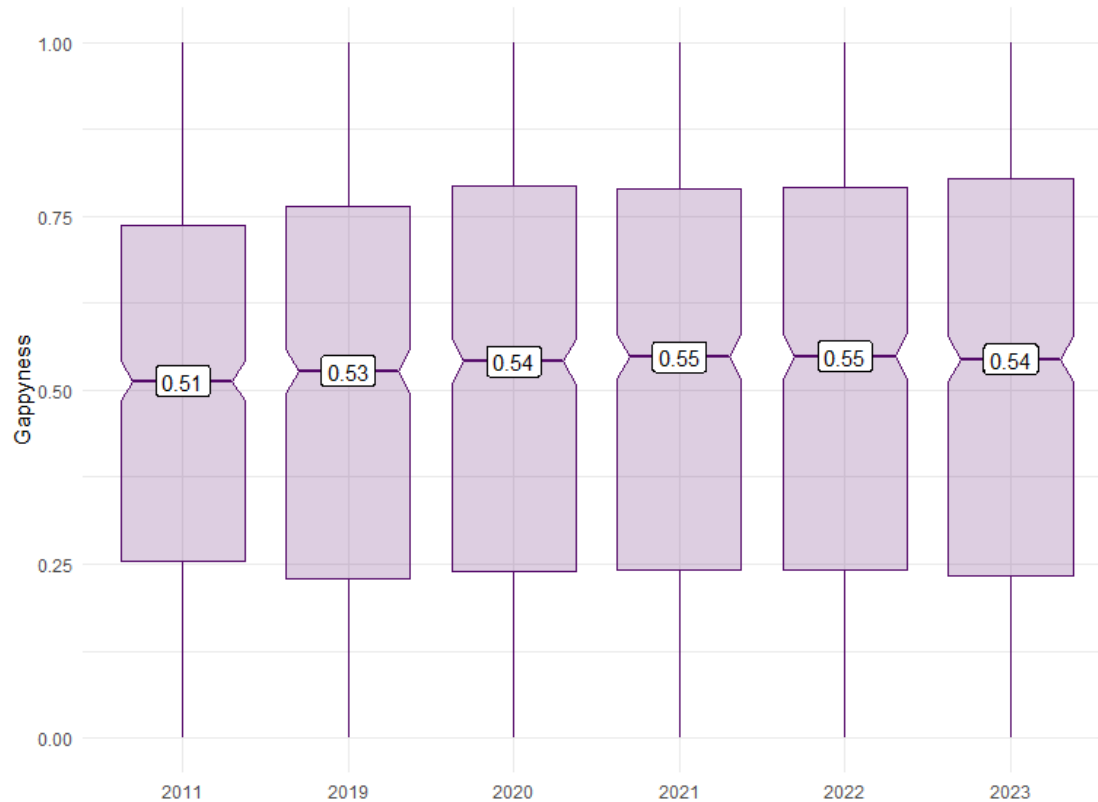
The estimated canopy gappyness, or openness, of the FOBI woodland unit as represented by an inverse of the mean cross sectional area at breast height of all tree components per hectare, modelled using Forest Yield. Mean basal area is transformed to a 0-1 scale where 10-15 m²/ha mean basal area (assumed to reflect a canopy cover of around 70%) is attributed an optimum value of one, decreasing linearly either side of this range to zero value at 30 m²/ha and 0 m²/ha mean basal area.

Summary of trend

Minor changes from one year to the next.

Change over time statistics

Boxplot



Boxplot of the raw Gappyness metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Oldest Tree

Metric description

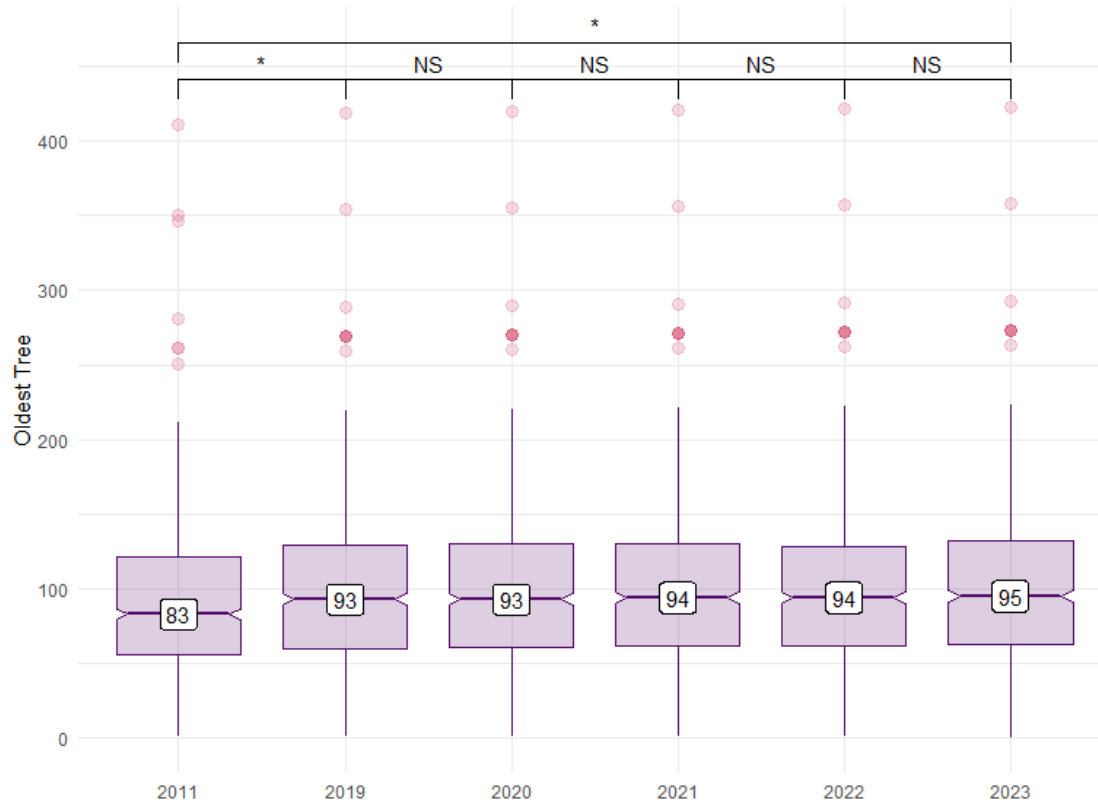
The age of the oldest planted tree recorded via the SCDB in the FOBI woodland unit.

Summary of trend

Increasing over the long and short term.

Change over time statistics

Boxplot



Boxplot of the raw Oldest tree metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Open Habitat Cover

Metric description

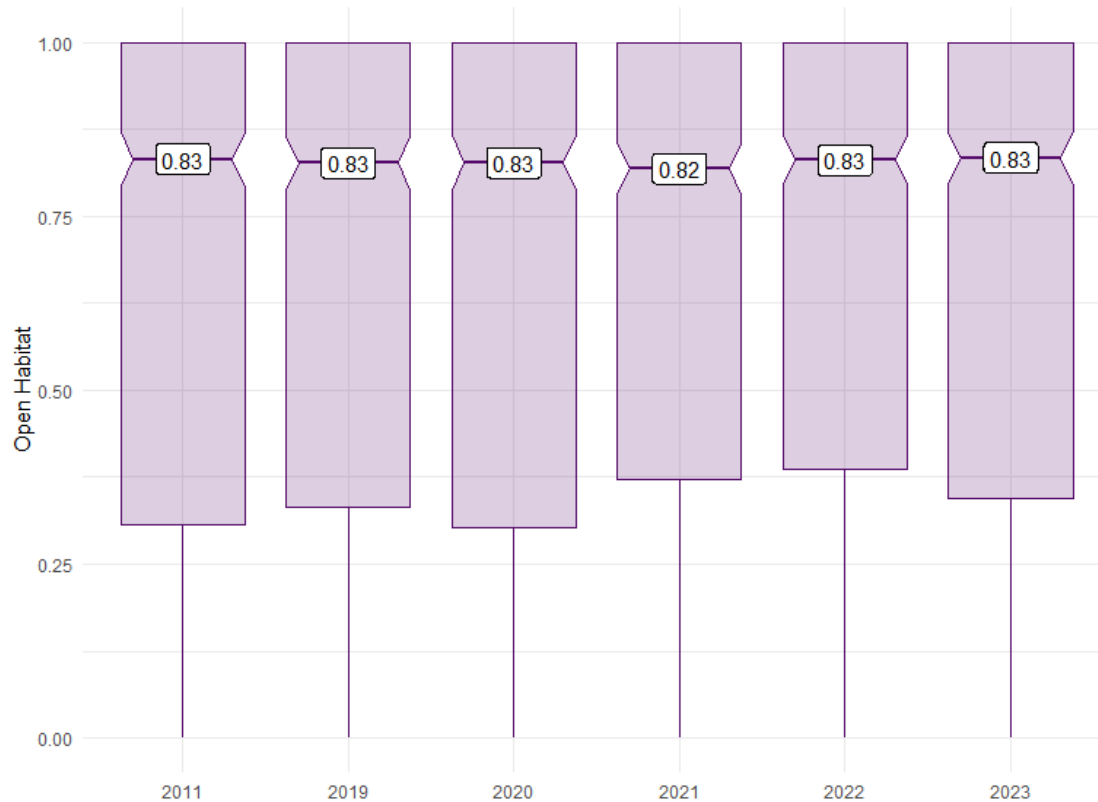
The percentage area of open semi-natural habitats and felled woodland within and between areas of woodland falling within the same FOBI woodland unit boundary. Because its relationship with biodiversity value is typically non-linear (n shaped), this metric is transformed to a 0-1 scale where 10-25% open space is attributed an optimum value of one, decreasing linearly either side of this range to zero value at 100% and 0% open space.

Summary of trend

No change over time.

Change over time statistics

Boxplot



Boxplot of the raw Open Habitat metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Niche Availability

Metric description

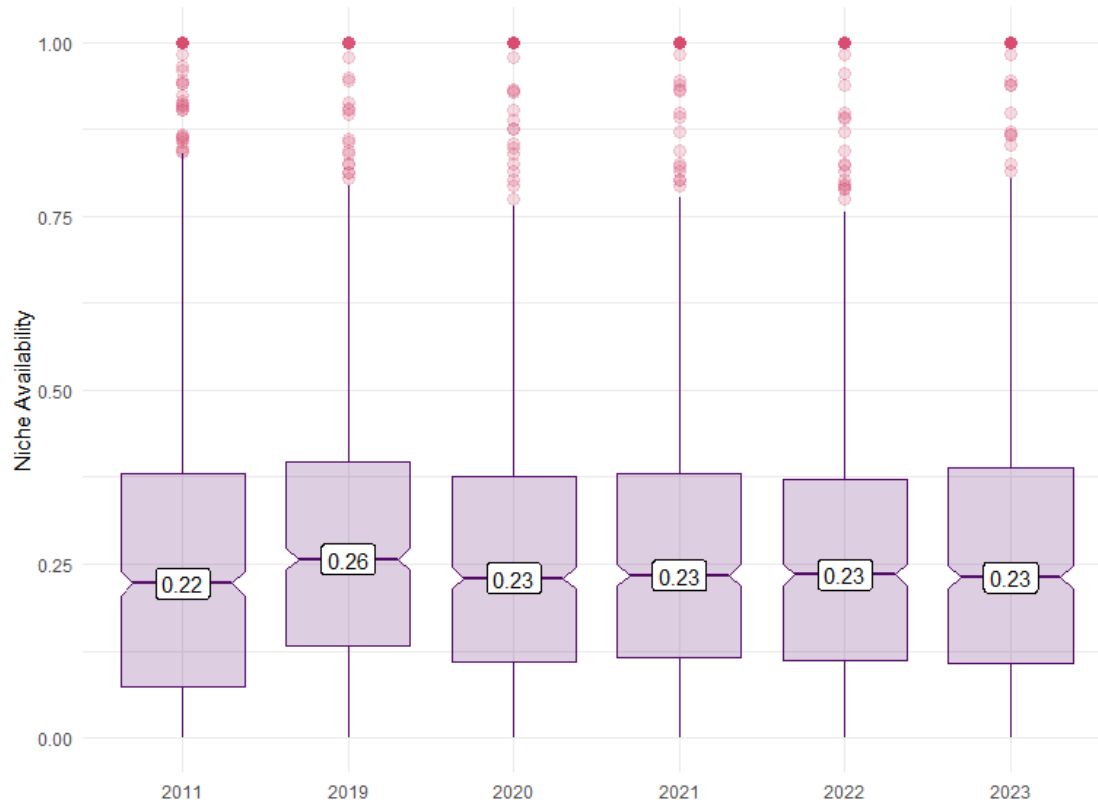
The proportional area of the FOBI woodland unit that provides a potential niche (suitable woodland type, structure and microhabitat combinations, defined using expert opinion) for one or more woodland protected species (of >170 species) falling within their estimated geographic range across each FOBI woodland unit.

Summary of trend

Niche availability increased by 18% between 2011 and 2019 but then dropped back to a similar level as before and stayed constant since 2020.

Change over time statistics

Boxplot



Boxplot of the raw Niche Availability metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Local Diversity Index

Index description

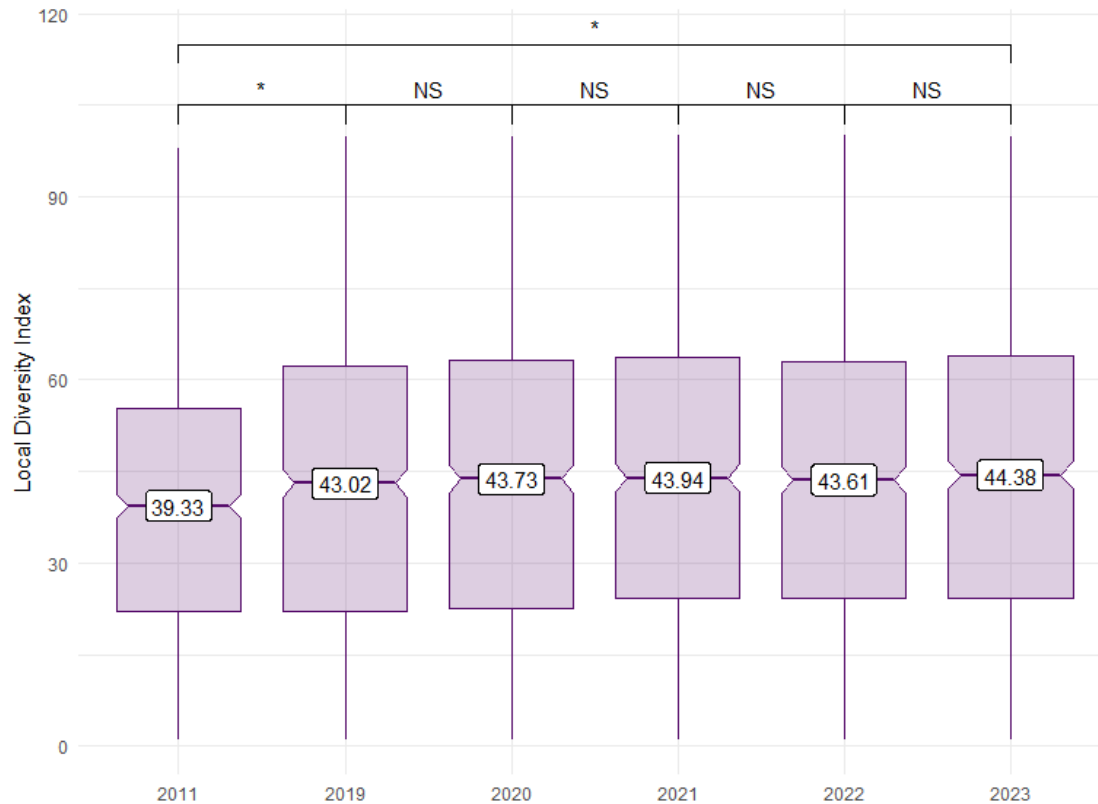
A single score resulting from the combination of all the local (woodland block) scale biodiversity metrics within the Diversity Metric Group. Each FOBI woodland unit receives a single score. Values can range from 0 to 1 (low diversity - high diversity).

Summary of trend

A significant increase of 12.8% from 2011 to 2023.

Change over time statistics

Boxplot



Boxplot of the raw Local Diversity Index metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Stand Type Diversity

Metric description

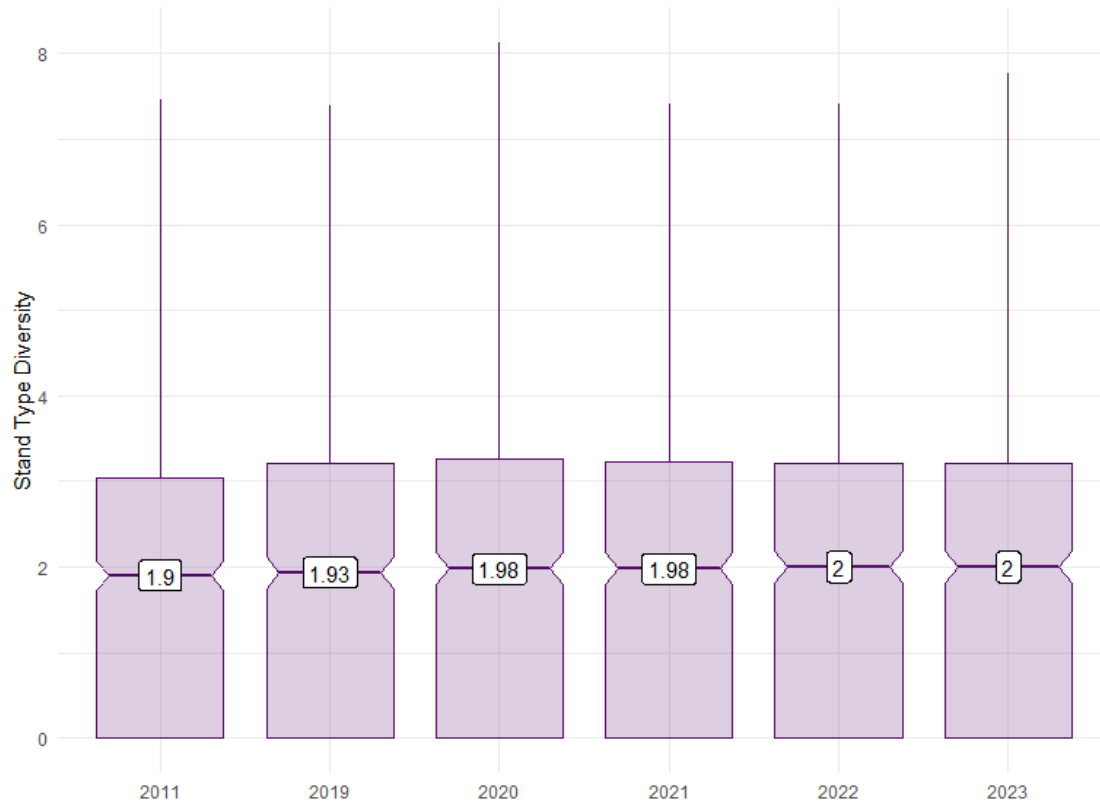
The effective number of FOBI woodland stand types that treed subcompartments are classified into by area across the FOBI woodland unit.

Summary of trend

Minor changes from one year to the next but an overall increase of 5.6% from 2011 to 2023.

Change over time statistics

Boxplot



Boxplot of the raw Stand Type Diversity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Tree Age Diversity

Metric description

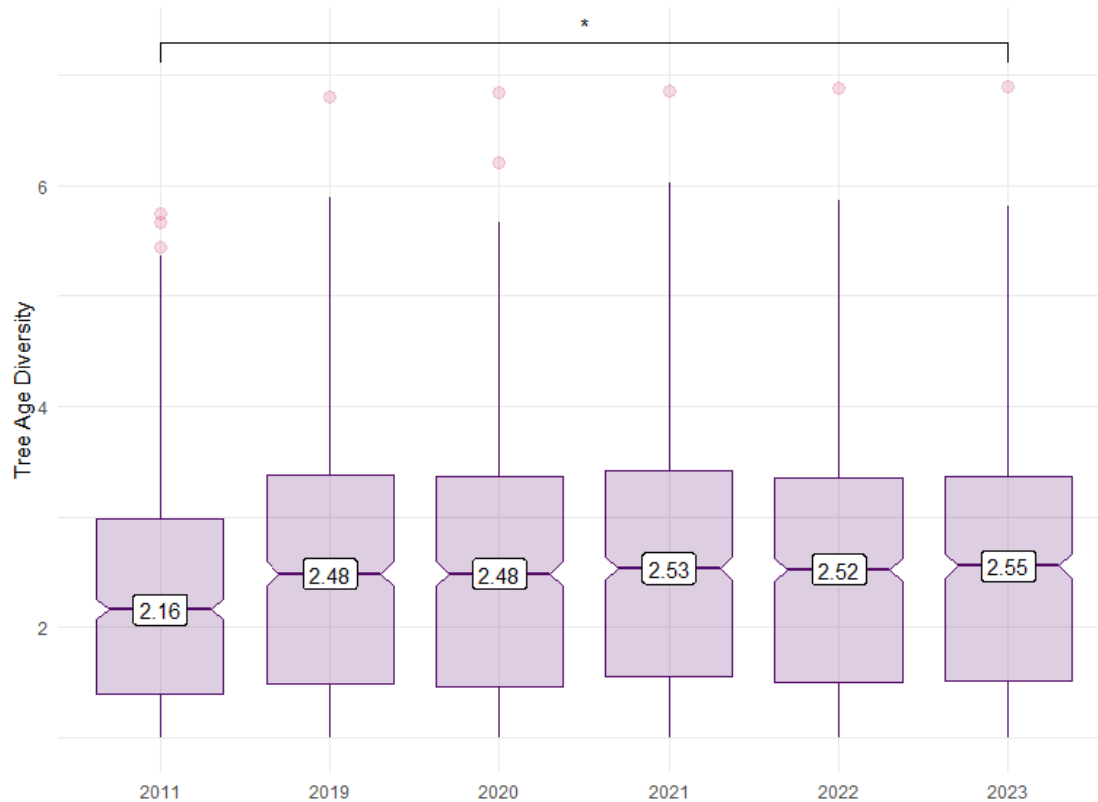
The effective number of tree age bands (0-20, 20-40, 40-60, 60-80, 80-100, 100-160, >160 years) present by area across the FOBI woodland unit.

Summary of trend

18.2% increase overall, with minor changes in recent years.

Change over time statistics

Boxplot



Boxplot of the raw Tree Age Diversity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Tree Size Diversity

Metric description

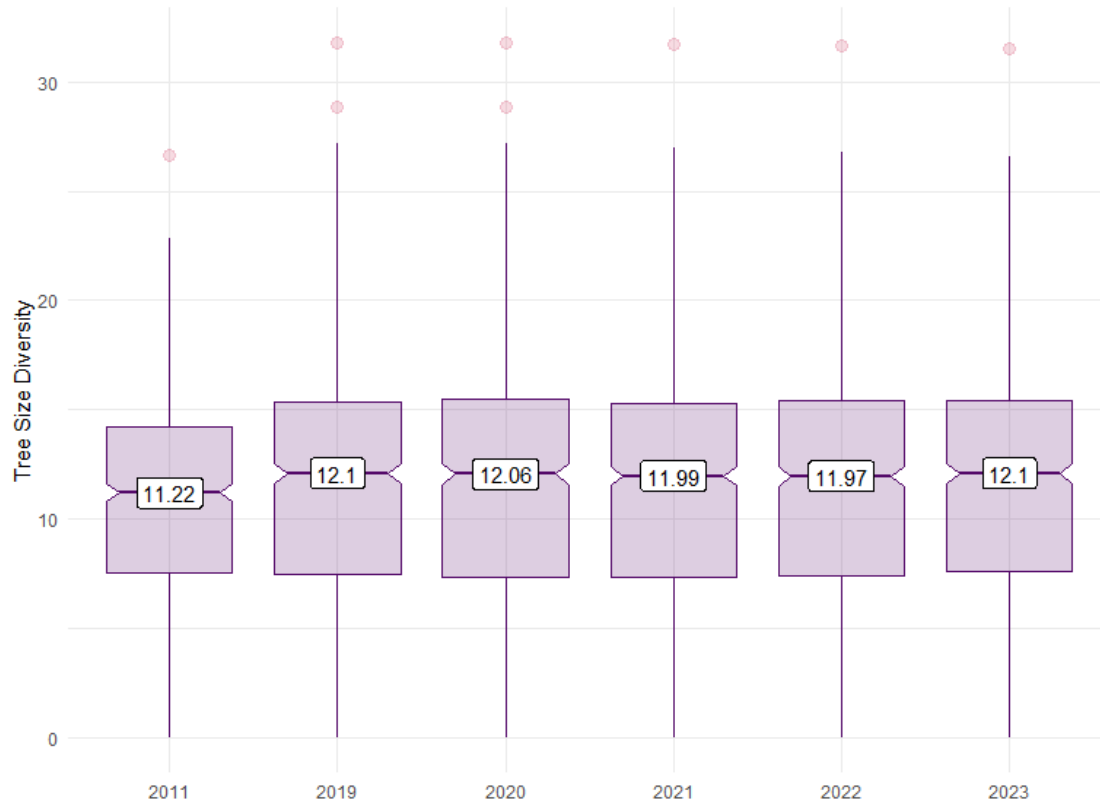
The standard deviation of tree diameters at breast height (modelled for each species component using ForestYield) across the FOBI woodland unit.

Summary of trend

Between 2011 and 2019, the median Tree Size Diversity score increased by 8%. The trend was declining until 2022, but the 2023 results are back at the 2019 level.

Change over time statistics

Boxplot



Boxplot of the raw Tree Size Diversity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Tree Species Diversity

Metric description

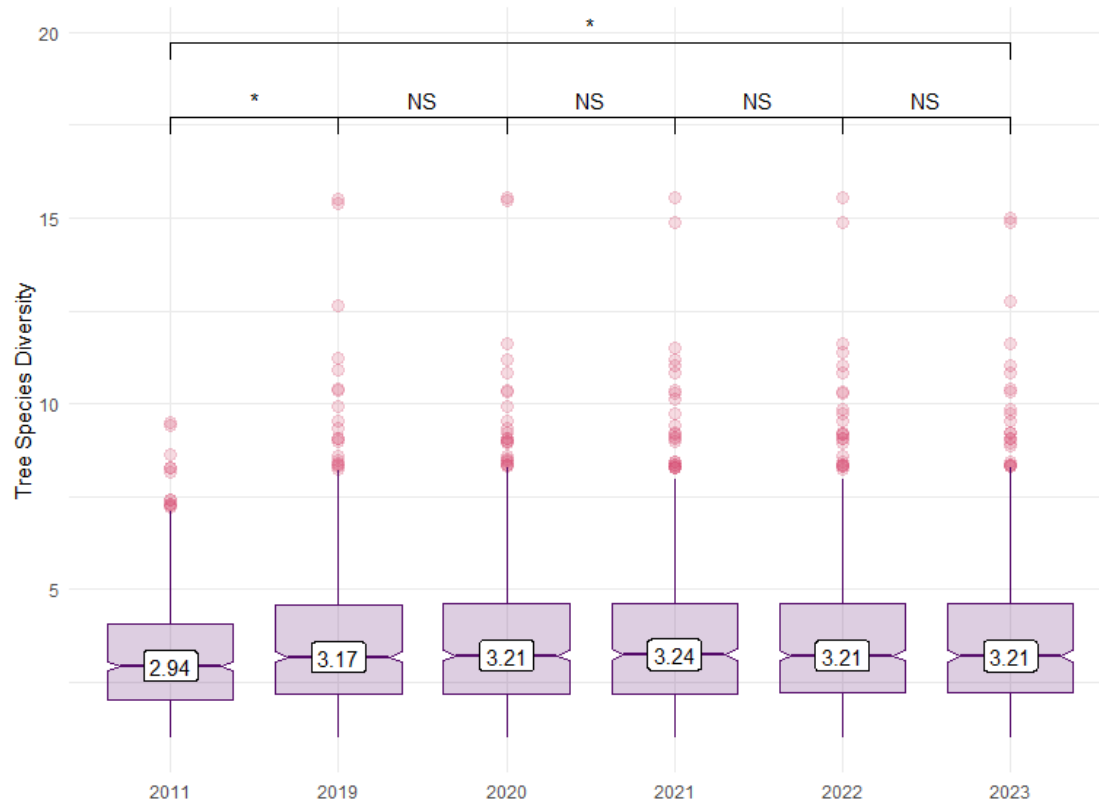
The effective number of tree species present by area across the FOB I woodland unit.

Summary of trend

Overall, the median increased by 9.3%, with minor fluctuations between the years.

Change over time statistics

Boxplot



Boxplot of the raw Species Diversity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Vertical Complexity

Metric description

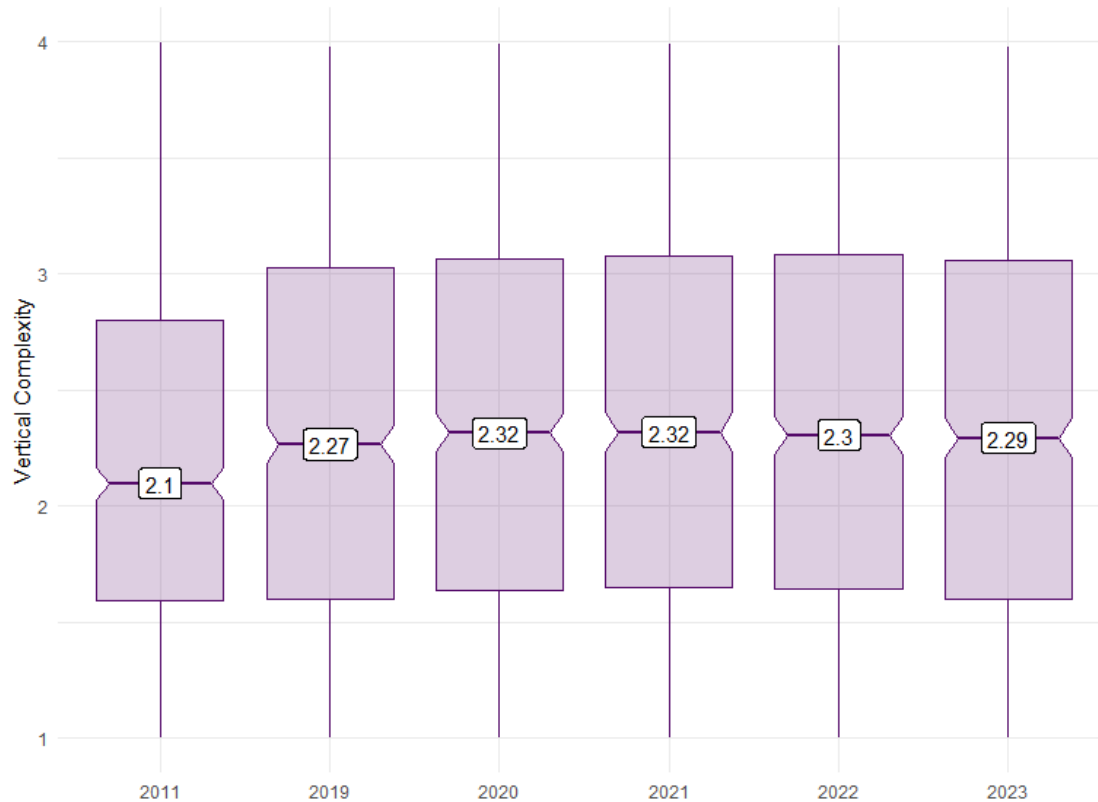
The effective number of tree height bands (<2; 2-6; 6-15; >15 m; modelled for each species component using Forest Yield) present by area across the FOBI woodland unit.

Summary of trend

Increased from 2011 to 2019, and although there were only minor changes since then, the metric shows an overall increase of 9.3% over the long-term.

Change over time statistics

Boxplot



Boxplot of the raw Vertical Complexity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Niche Diversity

Metric description

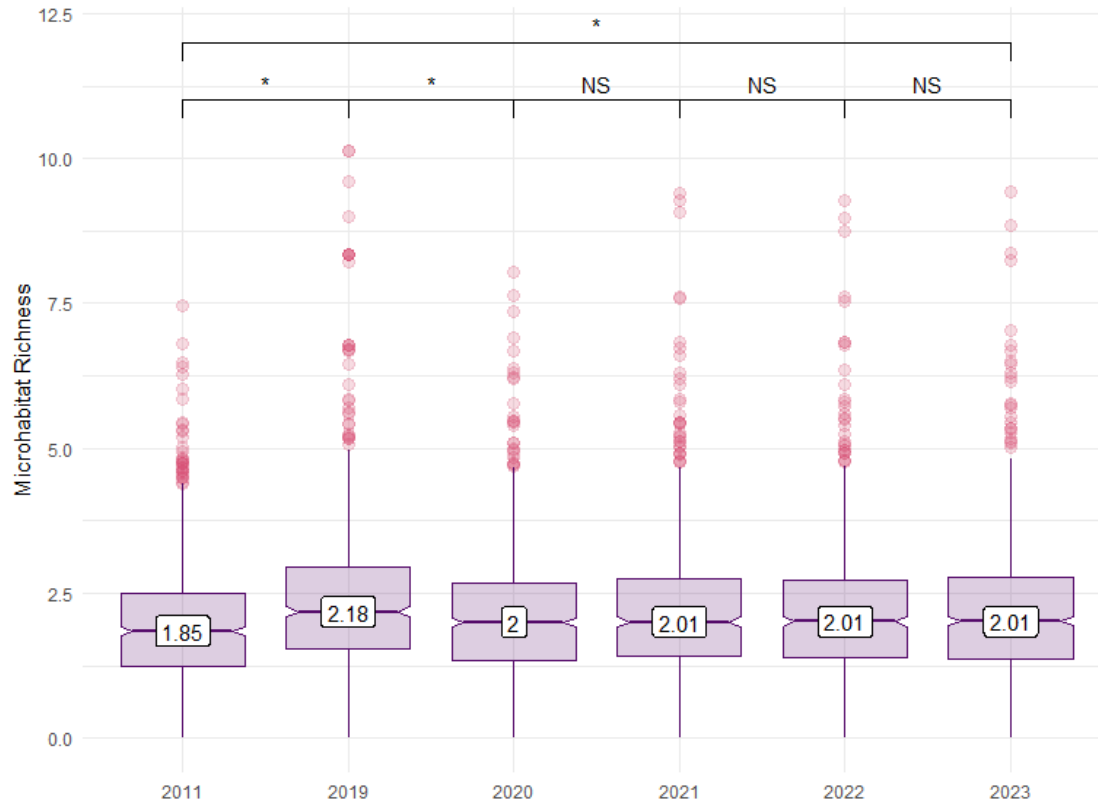
The effective number of niches for woodland protected species (suitable woodland type, structure and microhabitat combinations, defined using expert opinion for >170 species) falling within their estimated geographic range across the FOBI woodland unit.

Summary of trend

Fluctuating trend, but a long-term increase of 9.1% overall.

Change over time statistics

Boxplot



Boxplot of the rawNiche Diversity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Topographic Roughness

Metric description

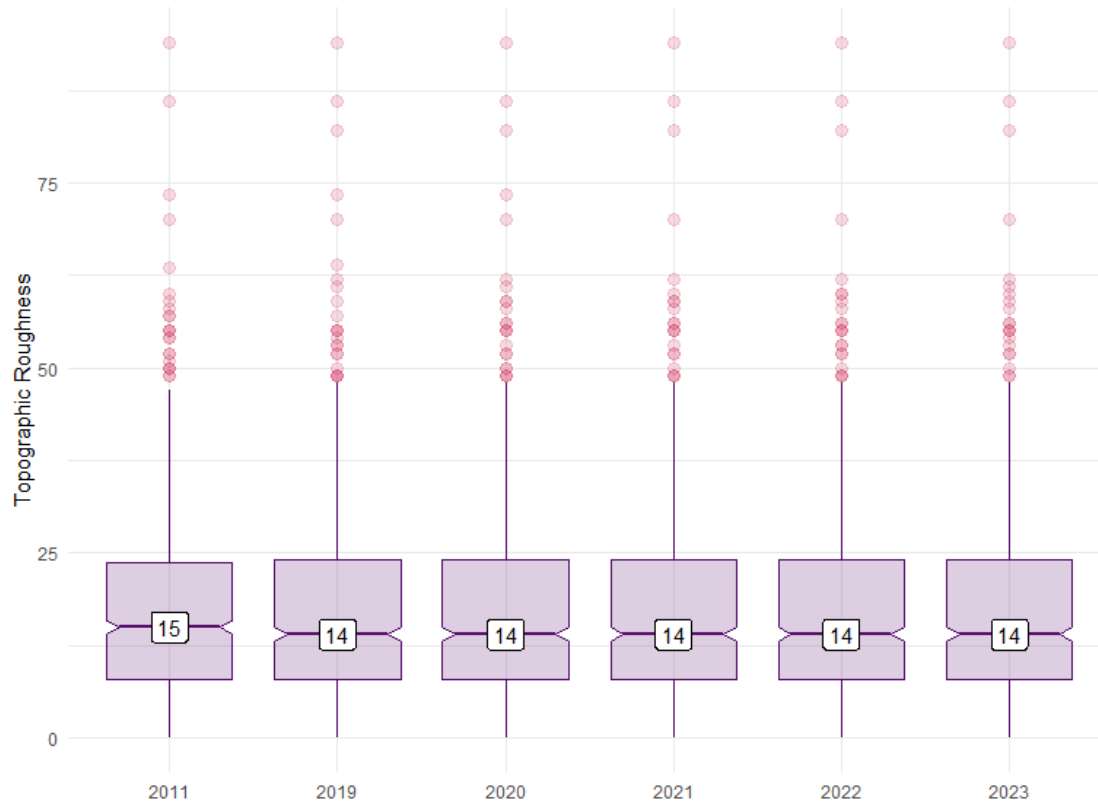
The median topographic roughness value (an index of altitudinal variation) across the FOBI woodland unit.

Summary of trend

Dropped from 2011 to 2019, but remained constant since then.

Change over time statistics

Boxplot



Boxplot of the raw Topographic Roughness metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Biodiversity Index

Index description

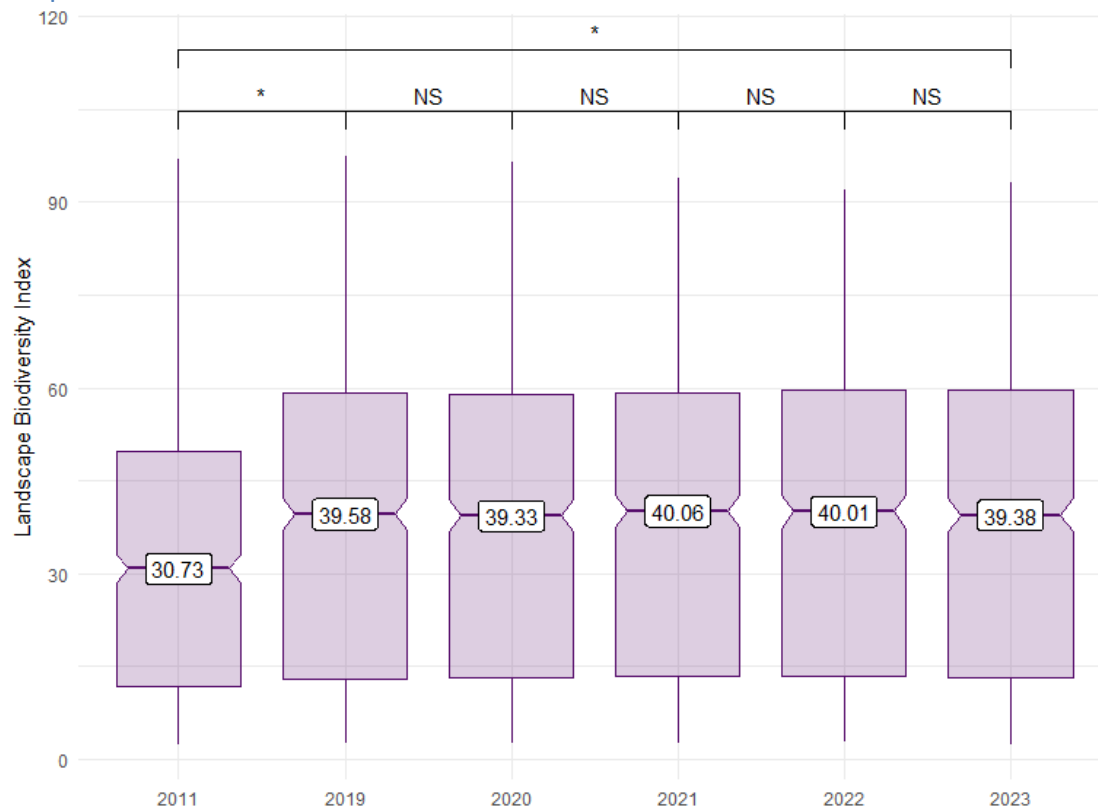
A single score resulting from the combination of the Landscape Extent, Diversity and Connectivity Indices. Each FOBI woodland unit receives a single score. Values can range from 0 to 1 (low biodiversity score - high score).

Summary of trend

Increasing with small fluctuations, with a +28% difference over the long-term.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Biodiversity Index results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Extent Connectivity Index

Index description

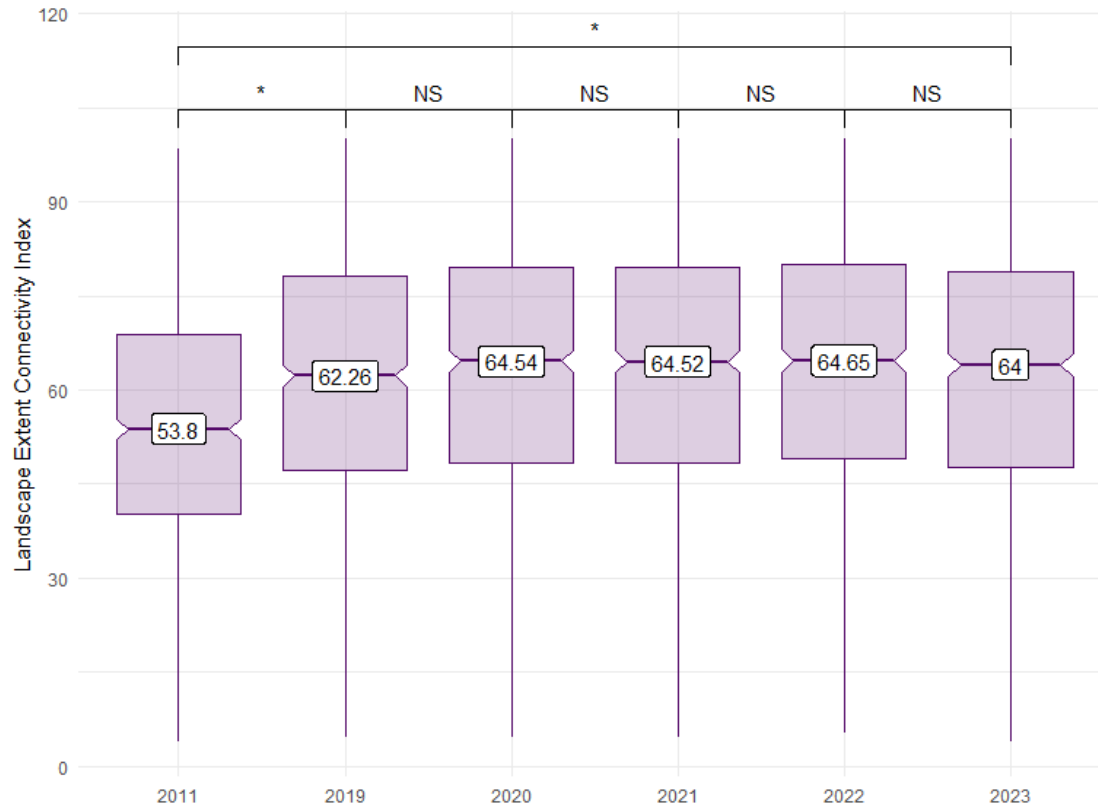
A single score resulting from the combination of all the landscape scale biodiversity metrics within the Extent and Connectivity Metric Group. Each FOBI woodland unit receives a single score. Values can range from 0 to 1 (low connectivity - high connectivity).

Summary of trend

Significant increase from 2011 to 2019, and minor changes after, resulting in a 19% growth over the long term.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Extent Connectivity Index results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Woodland Aggregation

Metric description

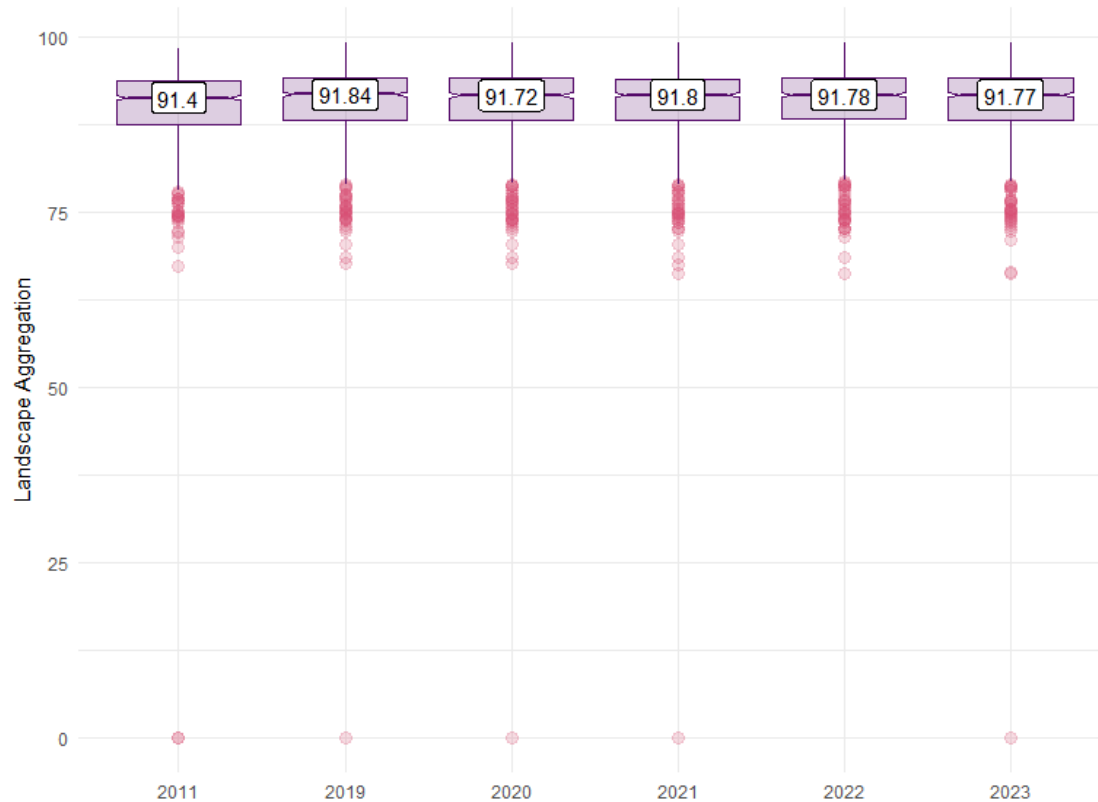
The degree to which the 'woodland habitat' is spatially aggregated (clumped) within a 1 km buffer around each FOBI woodland.

Summary of trend

No significant change over the long- and short-term.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Aggregation metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Permeability

Metric description

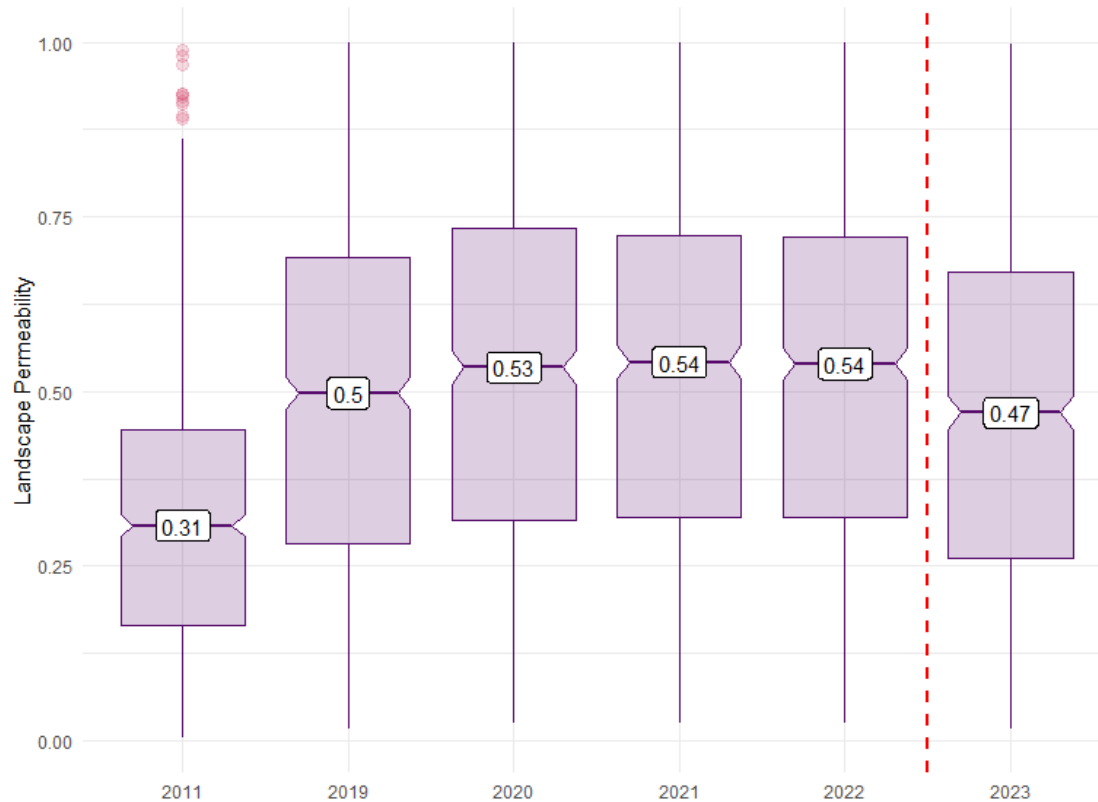
The percentage cover of broad land cover types classified as 'permeable' to woodland species (non-urban, semi-natural habitats excluding improved grassland and arable) within a 1 km buffer around each FOBI woodland unit.

Summary of trend

Please note that changes in the input landcover map data make the 2023 results not comparable with previous years.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Permeability metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$). Please note that changes in the input landcover map data make the 2023 results not comparable with previous years.*

Landscape Woodland Connectivity

Metric description

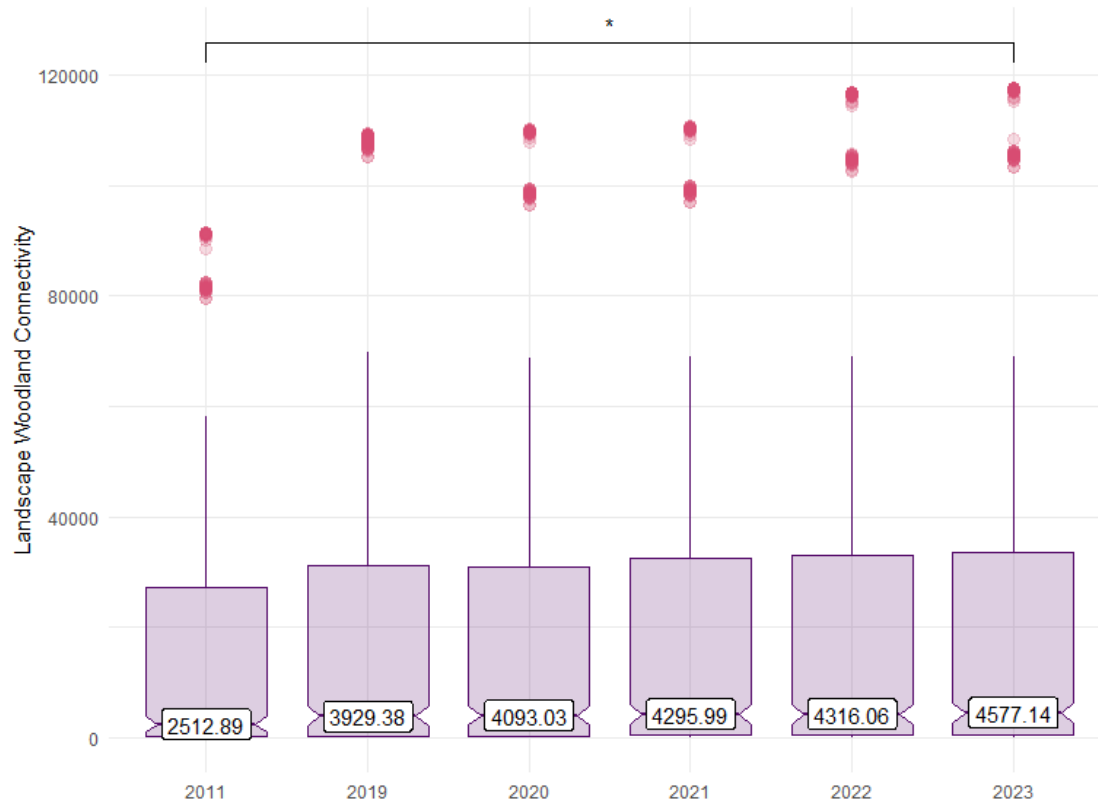
An index of connectivity between a FOBI woodland unit and surrounding 'woodland habitat' within 922 m. This approach accounts for both the area and spatial configuration of surrounding woodlands using a negative exponential dispersal function and incidence function model.

Summary of trend

An overall increase of 82.1%, with a constant increase from one year to the next.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Woodland Connectivity metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Woodland Cover

Metric description

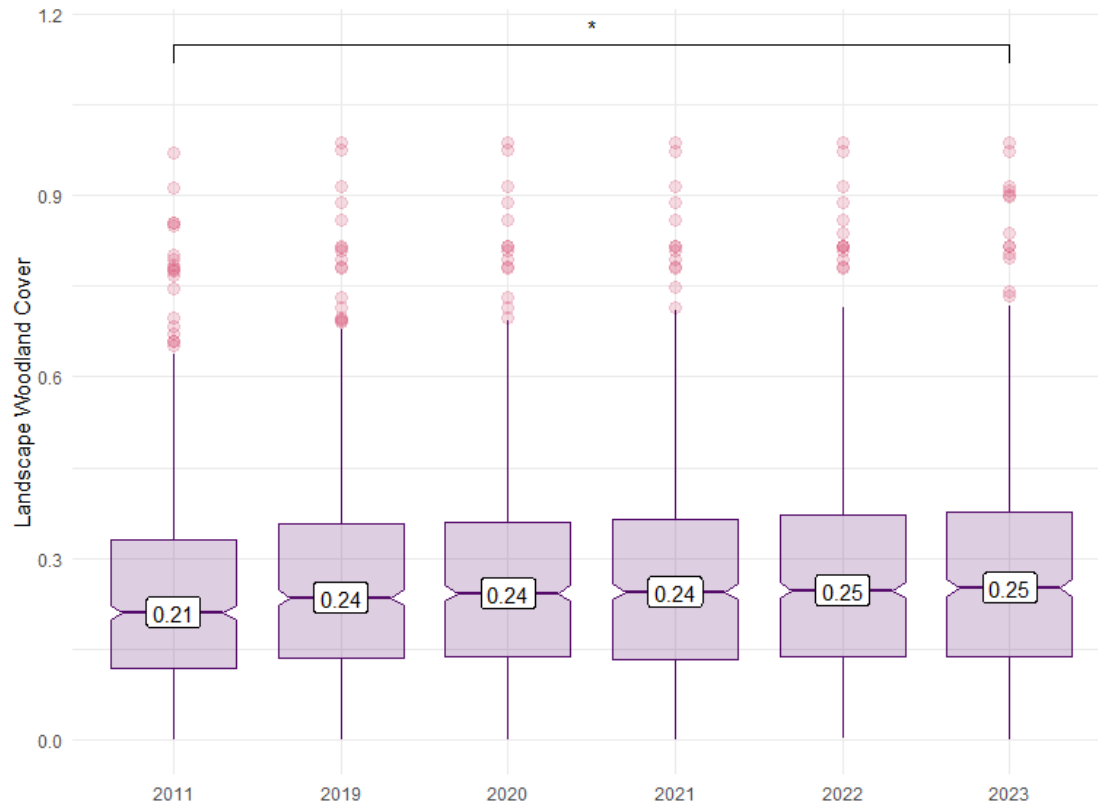
The percentage cover of all 'woodland habitat' within a 1 km buffer around each FOBI woodland unit.

Summary of trend

Increasing over the long term (+19% between 2011 and 2023).

Change over time statistics

Boxplot



Boxplot of the raw Landscape Woodland Cover metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Core Area

Metric description

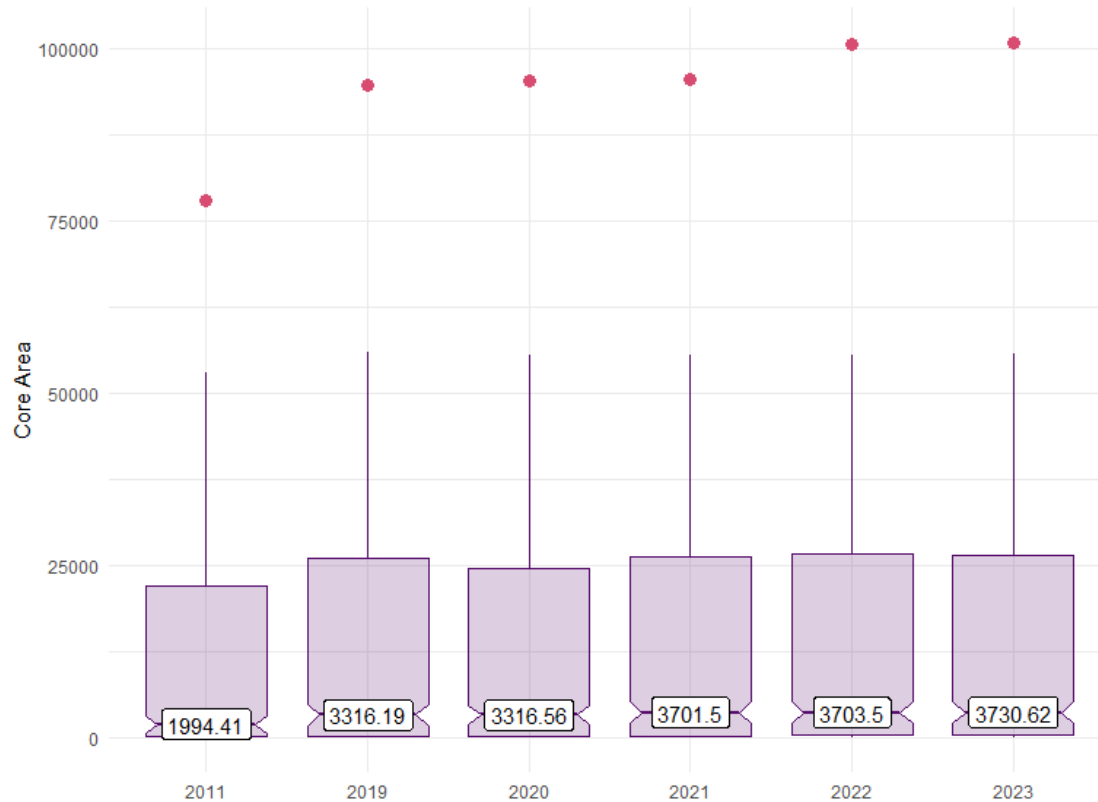
The core area (area minus a 50 m internal buffer) of the contiguous patch of 'woodland habitat' that a FOBI woodland unit falls within. More complex woodland shapes receive lower scores than more circular and compact woodlands of a similar size.

Summary of trend

Increased by 87% since 2011, with constant growth over the years.

Change over time statistics

Boxplot



Boxplot of the raw Core Area metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Woodland Size

Metric description

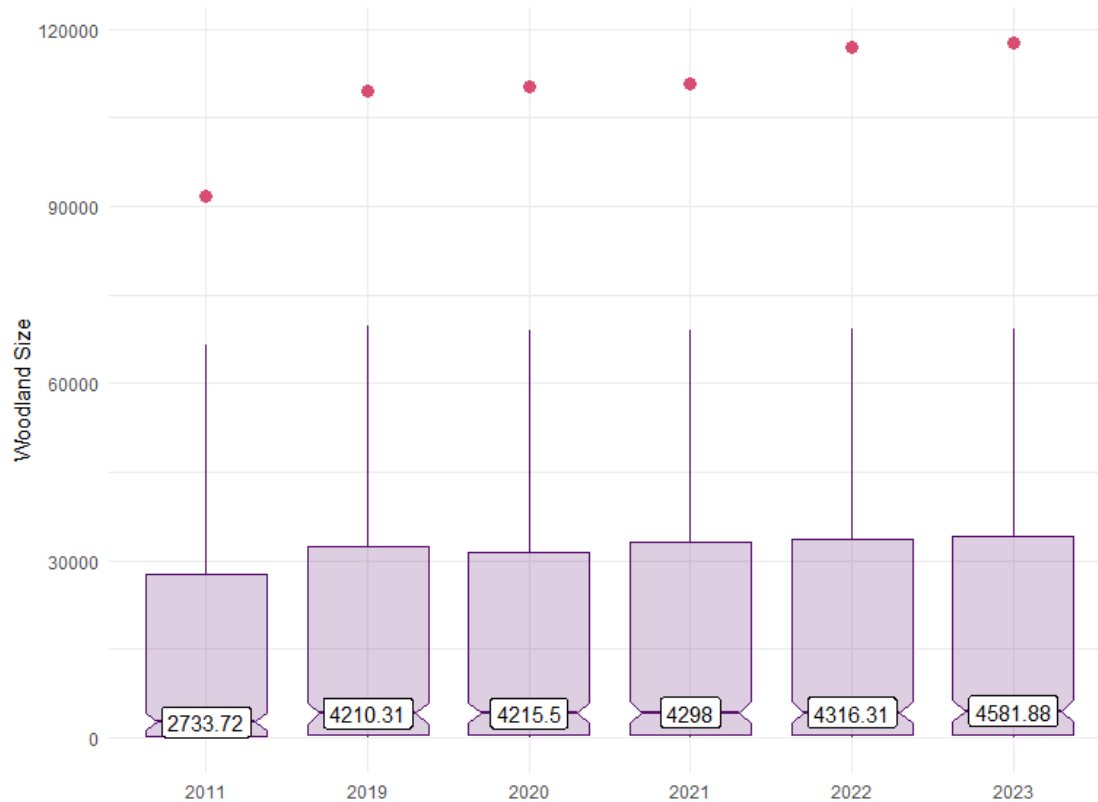
The area of the contiguous patch of 'woodland habitat' that a FOBI woodland unit falls within.

Summary of trend

Climbing from year to year, with an overall increase of 67.6% between 2011 and 2023.

Change over time statistics

Boxplot



Boxplot of the raw Woodland Size metric results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Diversity Index

Index description

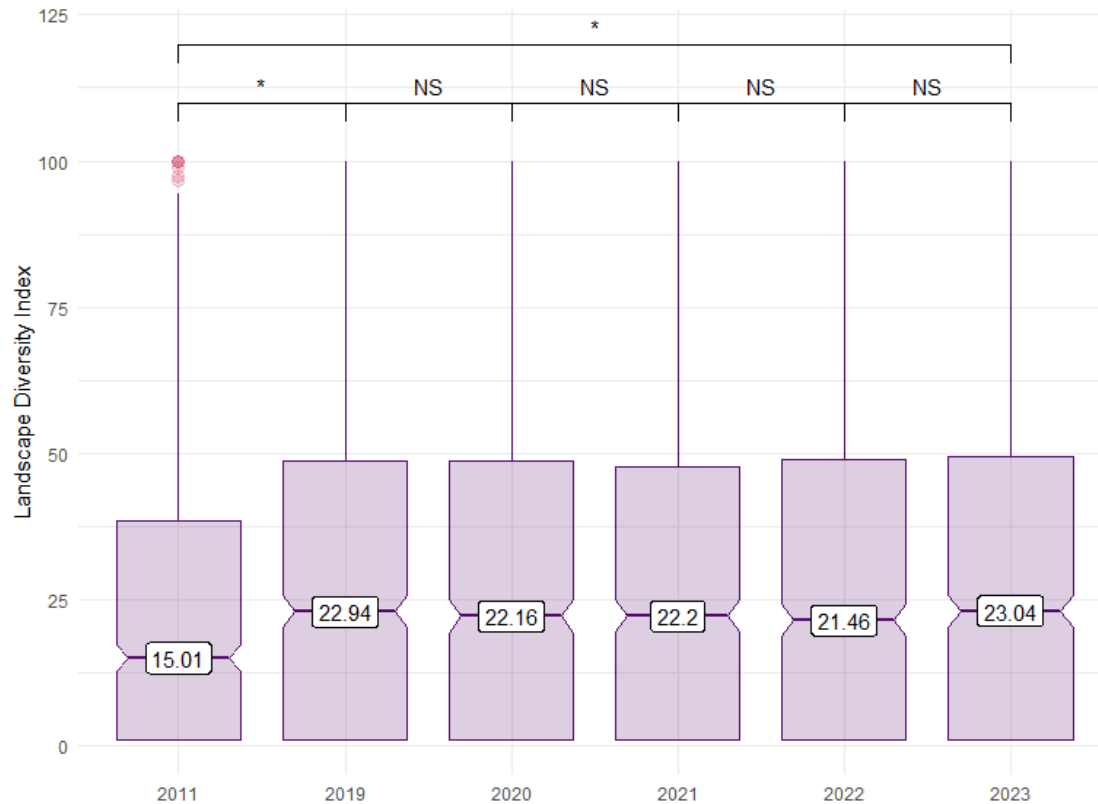
A single score resulting from the combination of all the landscape scale (1 km buffer around each woodland block) biodiversity metrics within the Diversity Metric Group. Each FOBI woodland unit receives a single score. Values can range from 0 to 1 (low diversity - high diversity).

Summary of trend

Overall, an increasing trend (+53.5%), but with slight fluctuations between years.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Diversity Index results by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Stand Structure Diversity

Metric description

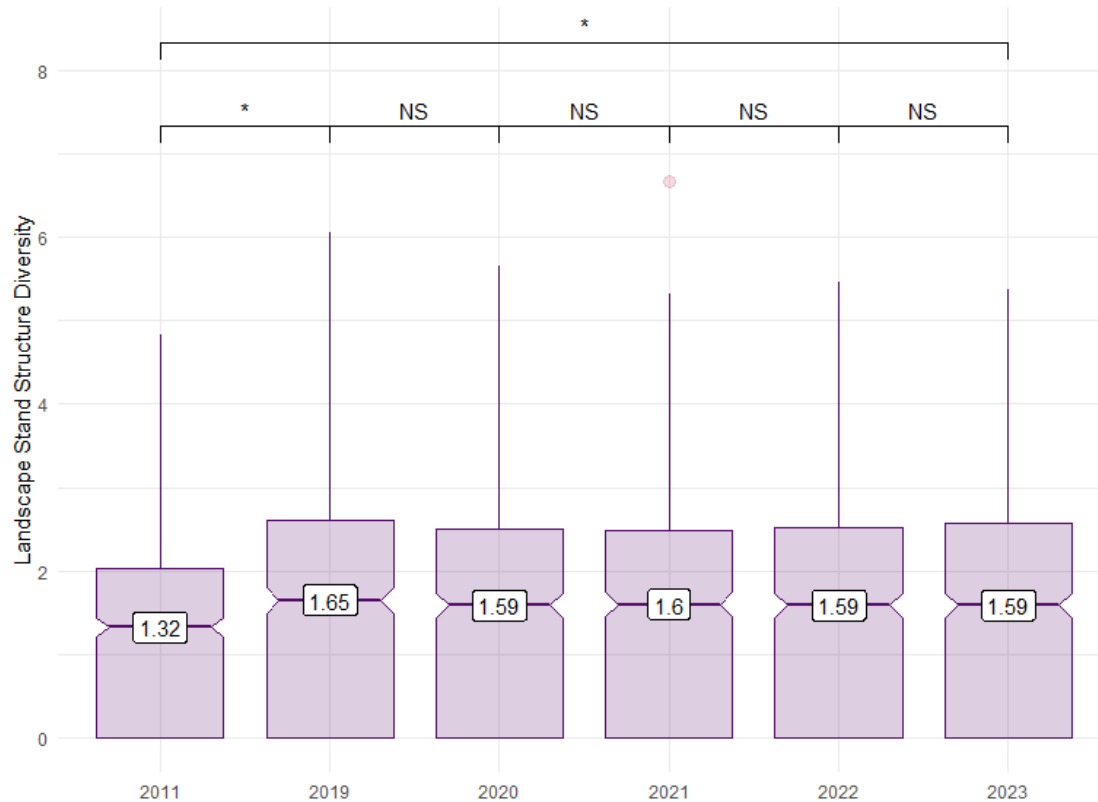
The effective number of subcompartment woodland structure types intersecting with a 1 km buffer around each FOBI woodland unit by area. Only public forest estate woodlands are used for this calculation because this information isn't available for private woodlands.

Summary of trend

Increasing on the long-term (20%), with minor year-to-year fluctuations.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Stand Structure Diversity metric by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Stand Type Diversity

Metric description

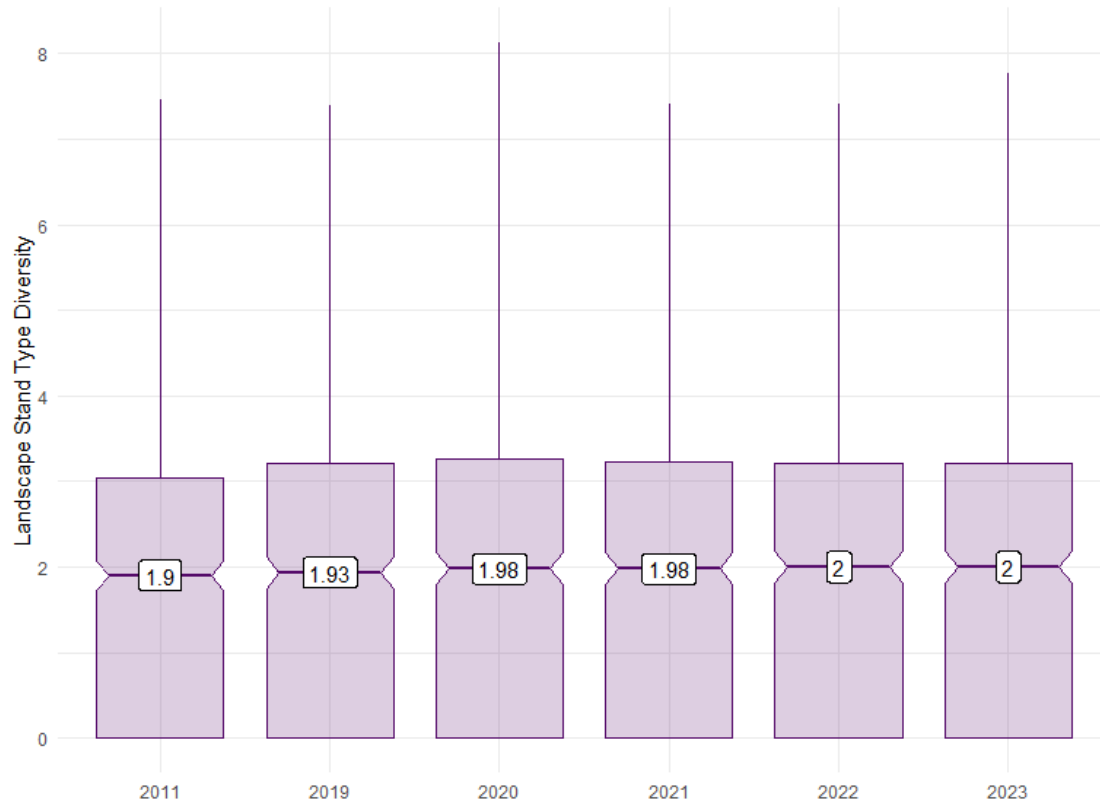
The effective number of subcompartment FOBI woodland stand types falling within a 1 km buffer around each FOBI woodland unit by area. Only public forest estate woodlands are used for this calculation because this information isn't available for private woodlands.

Summary of trend

Minor changes since 2011, but shows an increasing trend.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Stand Type Diversity metric by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Landcover Diversity

Metric description

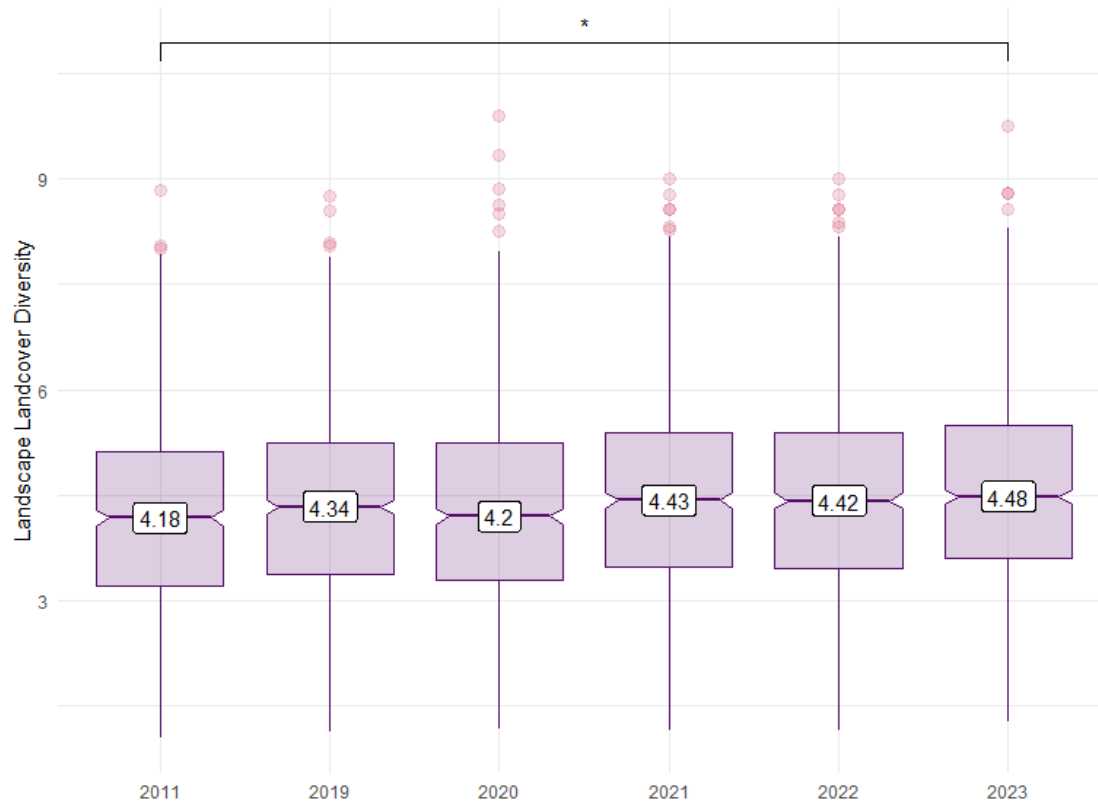
The effective number of broad land cover types within a 1 km buffer around the FOBI woodland unit.

Summary of trend

Slightly fluctuating over time, but an overall increase of 7.2% between 2011 and 2023.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Landcover Diversity metric by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

Landscape Woodland Size Diversity

Metric description

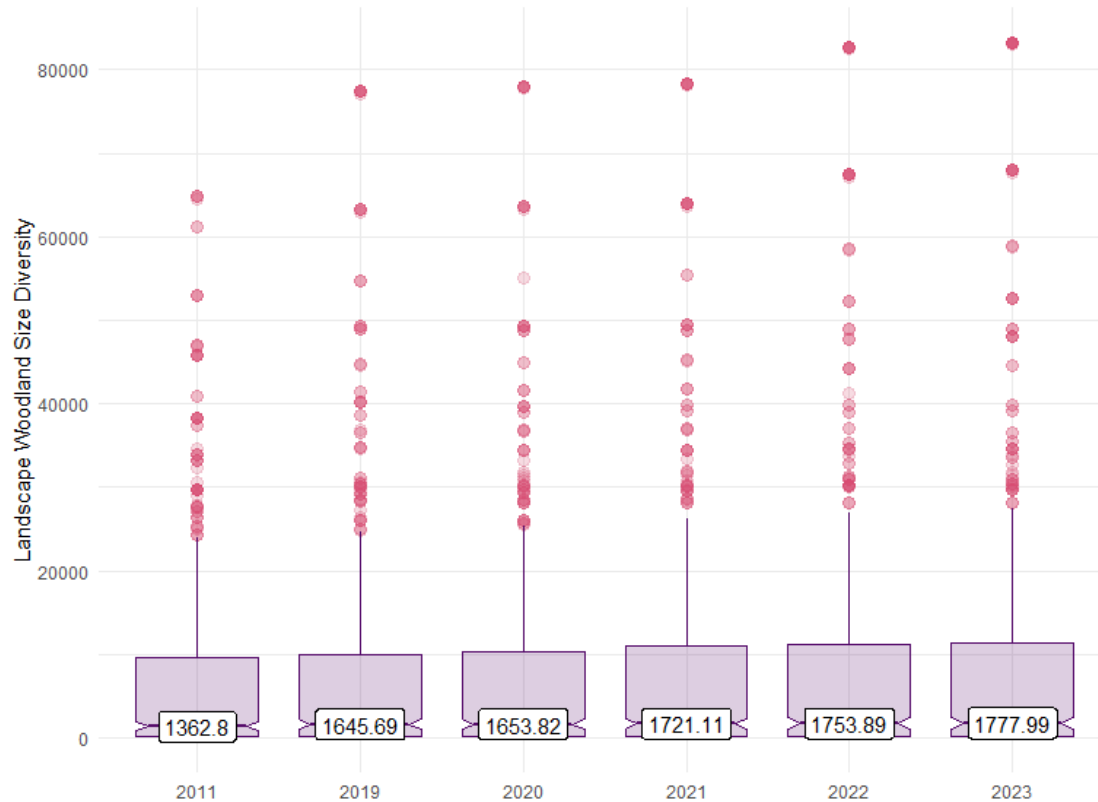
The standard deviation in size of all contiguous patches of 'woodland habitat' intersecting a 1 km buffer around each FOBI woodland unit.

Summary of trend

30.5% long-term increase, with a 1.4% growth in the last year.

Change over time statistics

Boxplot



Boxplot of the raw Landscape Woodland Size Diversity metric by year for Scotland. Median scores for the year are labelled. Statistically significant changes between years are indicated according to a Bonferroni corrected Wilcoxon Signed Rank Test ($p < 0.05$)*

2023 FOBI Regional trends

Summary of regional results

Central Region:

- Native Woodland Cover increased by 119% over the long-term (2011 to 2023).
- ASNW cover, Deadwood Production Capacity and Open Habitat Cover declined from 2011 to 2022 (-33%, -4% and -11%, respectively), although Deadwood Production Capacity improved in the last year (7%).
- Landscape level metric scores increased between 2011 and 2023 (except for Landscape Permeability - N.B. due to changes in the input landcover map data make the 2023 results not comparable with previous years)

East Region:

- Local Condition metric scores went up between 2011 and 2023, except for Niche availability (-8%). However, ASNW cover and Gappyness all slightly declined in the last year.
- Vertical Complexity decreased by -5% over the long term, but there was a 3.4% increase in the last year. Other Local Diversity metrics increased or remained constant over the long term.
- Landscape Woodland Connectivity increased by 61% over the long term.
- Landscape Stand Structure Diversity and Stand Type Diversity scores declined between 2011 and 2022 (-6.7% and -34.5%, respectively), but they remained constant in the last year.
- N.B. due to changes in the input landcover map data make the 2023 Landscape Permeability results not comparable with previous years.

North Region:

- Almost all Local level metric scores increased between 2011 and 2023. However, ASNW cover and Open Habitat Cover decreased over both the long and short term.
- Landscape level metric scores show a positive trend over the long term: e.g. Woodland Connectivity increased by 135% between 2011 and 2023, while Woodland Size, Woodland Size Diversity, Core Area also improved by more than 75%. In the last year, Landscape Stand Structure Diversity and Stand Type Diversity declined, but they are increasing over the long term.
- N.B. due to changes in the input landcover map data make the 2023 Landscape Permeability results not comparable with previous years.

South Region:

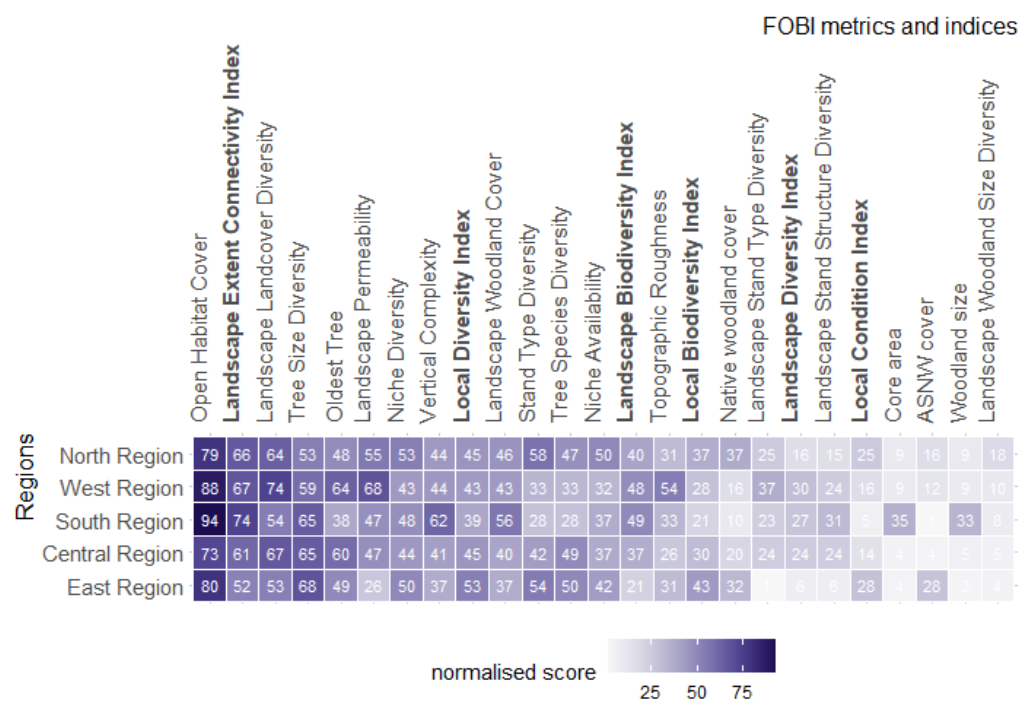
- Native Woodland Cover increased by 147% between 2011 and 2023, and all other Local level metrics show an increasing trend over the long term, except for Deadwood Production Capacity (-8%). Over the short term (2022-2023) most Local Diversity metrics decreased slightly.
- Landscape level metrics tended to increase over the long term, e.g. Core area grew by 173%, Woodland Size by 165% and Woodland Connectivity by 159%. In the last year (2022 to 2023), Landscape Woodland Size Diversity scores decreased slightly (+7%) but other metrics continued to improve.
- N.B. due to changes in the input landcover map data make the 2023 Landscape Permeability results not comparable with previous years.

West Region:

- Most Local metrics increased between 2011 and 2023, with Native Woodland Cover scores growing the most (+53%). The only metric to decline over the long term was Open Habitat Cover (-3%).
- Landscape level metrics improved significantly over the both long and short term: e.g. Woodland Connectivity scores increased by 44% between 2011 and 2023, Core Area by 77% and Woodland Size by 73%.
- N.B. due to changes in the input landcover map data make the 2023 Landscape Permeability results not comparable with previous years.

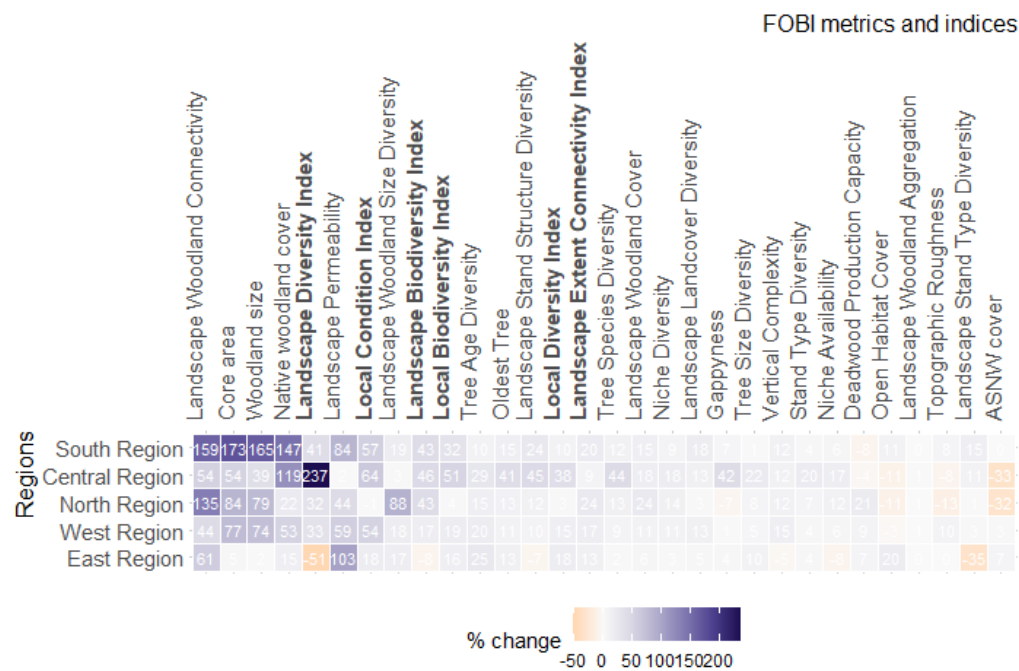
Heat map of FOBI trends by region

Normalised metrics 2023



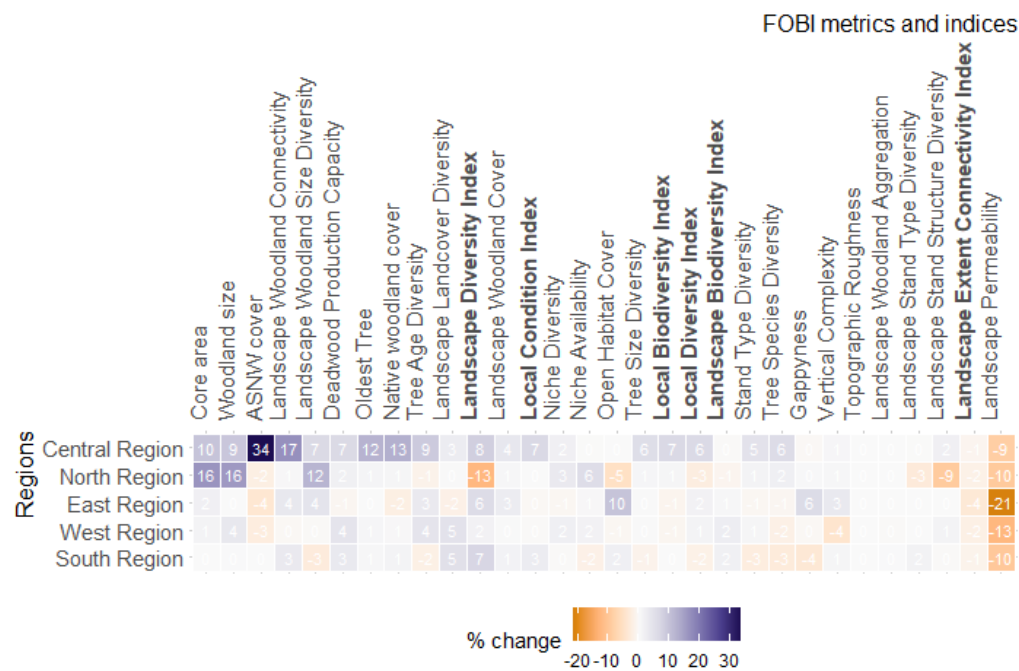
Heatmap of normalised median 2023 FOBI index and metric values across the regions

Long-term change (2011 to 2023)



Heatmap of long-term change (2011 to 2023) in median FOBI index and metric raw values across the regions

Short-term change (2022 to 2023)



Heatmap of short-term change (2022 to 2023) in median FOBI index and metric raw values across the regions

Metric and Index score changes over time by region/district

Long-term change (2011 to 2023)



Long-term (2011 to 2023) change in median FOBI index and metric raw values across the regions

Short-term change (2022 to 2023)



Short-term (2022 to 2023) change in median FOBI index and metric raw values across the regions

Metadata

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