

B6. Diversity of woodland within a stand

Relevance In addition to preserving the quality of ancient semi-natural woodland (ASNW) there is also considerable scope to enhance the biodiversity of other woodlands by encouraging the development of natural processes such as the build-up of deadwood. Deadwood is an important habitat for certain species. High degrees of naturalness and variation in woodland structure support high levels of biodiversity.

Key Points 12% of high forest in GB contains some standing deadwood, 23% of high forest in GB contains some fallen trees and 4% of high forest in GB contains some felled and abandoned timber.

Standing and lying deadwood in high forest¹ in GB

Standing deadwood ²	% of high forest area				
	No. of pieces per hectare	England	Scotland	Wales	GB
0	84.5	88.6	98.2	88.0	
4/8	8.6	5.2	0.7	6.1	
12/16	3.4	3.0	0.2	2.9	
20/24	1.4	1.4	0.1	1.2	
> 24	2.0	1.9	0.8	1.8	
Lying deadwood ³ (felled and abandoned)	% of high forest area				
	No. of pieces per hectare	England	Scotland	Wales	GB
0	94.9	96.5	99.8	96.2	
4/8	2.0	1.0	0.0	1.3	
12/16	1.1	0.7	0.0	0.8	
20/24	0.7	0.7	0.0	0.6	
> 24	1.3	1.2	0.1	1.1	
Fallen trees ⁴ (provisional)	% of high forest area				
	No. of pieces per hectare	England	Scotland	Wales	GB
0	66.6	82.5	92.9	77.2	
4/8	13.6	6.1	2.9	8.8	
12/16	9.0	3.6	1.8	5.6	
20/24	4.6	2.4	0.7	3.1	
> 24	6.1	5.4	1.7	5.3	

Source: NIWT 1995-1999

¹High forest excludes open ground and coppice.

²Standing deadwood is the number of standing trees which have deadwood of more than 15 cm diameter.

³Lying deadwood' is felled and abandoned timber which is at least 15 cm diameter and 2 m long.

⁴Fallen trees' is fallen trees or large limbs of trees over 7cm in diameter, which may or may not yet be dead.

Background Deadwood is an important habitat for small vertebrates, invertebrates, fish (wood in watercourses), cavity nesting birds, lichens and fungi.

NIWT measures standing deadwood, and it measures lying deadwood in two categories: felled and abandoned timber (logs that have been worked by man to some extent and left to decay) and fallen trees (trees or limbs of trees that have fallen naturally); statistics for the latter were only available after the indicator publication.

Deadwood is recorded in one quarter of each sample square, so the observed counts are multiplied by 4 to show a count per hectare. For both standing and lying deadwood, the counts are more extreme than would be expected if the distribution of deadwood were random, having more counts showing no deadwood and also more counts showing multiple pieces of deadwood.

NIWT does not cover Northern Ireland, and there is no alternative source of similar data.

Future Many other measures could contribute to an indicator of diversity of the woodland itself (within a stand).

Other measures of diversity will be available from NIWT. They will include the following:

- fallen trees (number per sample square),
- old forest growth (measure still to be defined),
- within-stand species diversity (no of patches per sample square and/ or number of species (trees, shrubs and bushes) in each sample square),
- within-stand vertical structure (area of forest with given number of layers).

Other measures of diversity may be available from follow-up analysis of CS2000 data (see Countryside Survey website).