

Ecosystem service (n articles, n references)	Ecosystem service category (MEA 2005)	Discussed in peer-reviewed literature? (n articles, n references)	Discussed in newspaper articles? (n articles, n references)	Number of references in the <i>Before</i> articles	Number of references in the <i>After</i> articles	Sample text from academic literature ( <i>italics</i> used to indicate most relevant text)	Sample text from newspaper article ( <i>Before</i> followed by <i>After</i> , if both available; dates provided) ( <i>italics</i> used to indicate most relevant text)
Aesthetics (33, 111)	Cultural	Yes (13, 40)	Yes (19, 69)	27	42	"The quality of the landscape of south-east England owes much to its mature trees, and the loss of so many of them on the 16 October <i>had a devastating effect on the appearance and beauty of the countryside</i> ." - Grayson et al. 1988	"In fact he sees no reason whatsoever why we shouldn't all do our bit in <i>bringing more greenery into the urban landscape</i> , even if it's only to plant one tree in our garden <i>to enhance the house in which we live</i> ." - Carol Frost, Apr. 17 1986 (Ashbourne Viewpoint)  " <i>Hundreds of trees lost including many fine street trees</i> in famous and historic sites. Whitehall, The Mall, The Embankment, Berkeley Square, Soho Square, Park Lane." - Angus McGill, Nov. 30 1987 (Evening Standard)
Tidiness (6, 9)		Yes (4, 4)	Yes (2, 5)	0	5	"Wild nature <i>had intruded upon the ordered sensibilities</i> of South East England." - Russell, 1998	"The Trust manages the yearly miracle, after leaf-fall, of making thousands of acres of countryside <i>look neat</i> ." - John Cunningham, Oct. 15 1988 (The Guardian)
Attachment to place (13, 30)	Cultural	Yes (5, 13)	Yes (8, 17)	3	14	"The Royal Botanic Gardens at Kew <i>hold a special place in the lives</i> of a high proportion of members of the ARBORICULTURAL ASSOCIATION. <i>Many received their initial training there, others attended short courses while some went as visitors for no other reason than to enjoy its splendour and the magnificence of the tree collection</i> ." - Hall 1987	"And consider the effects not on landscapes but on lives. <i>There are still regular visitors – old people, mostly – who can't face going back to see the upheaval at showplaces</i> such as Sheffield Park in East Sussex." - John Cunningham, Oct. 15 1988 (The Guardian)
Heritage (21, 57)	Cultural	Yes (7, 23)	Yes (14, 34)	8	26	"Many of the 500-plus trees brought down <i>were of great scientific or historical interest: oaks planted by Queen Charlotte 200 years ago were felled, as was a rare black walnut planted by Queen Elizabeth in 1959</i> ." - Pritchard 2012	"DORSET: Kingston Lacy, 20 ancient trees lost; Panthill Green, the oaks damaged; <i>Tolpuddle, the 250-year-old Martyrs' Tree, a sycamore, has been split and needs urgent repair</i> ." - Nov. 13 1987 (The Daily Telegraph)
Myths, legends, and fairy tales (1, 7)	Cultural	Yes (7, 1)	No	NA	NA	"This is the <i>realm of the will-o-the-whisp; the Snark that can turn out to be a Boojum; the half remembered, half understood elements of magic and fantasy</i> : elusive, never constant, always changing shape. <i>It is nevertheless a way of approaching the numinous quality in Nature which is part of the reality most of us acknowledge</i> ." - Russell 1998	NA
Recreation (10, 24)	Cultural	Yes (5, 10)	Yes (5, 14)	1	13	" <i>There is continuous and developing pressure by the general public to use woodlands for enjoyment and recreation</i> . The demand is underpinned and maintained by having London on the doorstep of the Chilterns, and several large towns in the hills themselves and centres like Oxford, Aylesbury and Milton Keynes (see Fig. 1). <i>Any organized activity develops its own association, club or society, which acts as a pressure group to maintain and improve the facilities for its members</i> ." - Tilney-Bassett 1988	"In 1957, Thomas Edward <i>gave 2,000 acres of land to be managed as a nature reserve or access land</i> . It now forms a <i>major part of the area designated as Cannock Chase Country park</i> ." - Nov. 8 1982 (Evening Sentinel)  " <i>Thousands of miles of footpaths and bridleways plus thousands of acres of public woodland are expected to take months to clear</i> . Since open spaces are heavily damaged <i>the public are urged to take particular care here and especially discourage children from playing</i> on broken trees and branches." - Oct. 29 1987 (Leatherhead)
Religion and sacredness (6,10)	Cultural	Yes (1, 3)	Yes (4, 6)	6	0	" <i>The tree has figured in many myths</i> and even in a sceptical age like ours, <i>the tree is still brought into the house and decorated at Christmas</i> ; it is also <i>venerated in tree dressing ceremonies</i> ." - Russell 1998	" <i>Trees are a lovely part of God's creation</i> , and they deserve to be treated as such." - Haydn Thomas, May 28 1987 (Post & Times)
Sport hunting (4, 5)	Cultural	Yes (3, 4)	Yes (1, 1)	0	1	"One reason for the large quantity of mature timber is that timber production is often a minor objective of woodland owners in south and east England, while <i>sporting values and the environmental benefits of woodland figure much more highly than elsewhere</i> , so leading owners to retain trees past maturity." - Grayson et al. 1987	"Game keepers are still grouching. <i>Their income has fallen because they used to be paid according to the numbers of game birds shot and the storm unsportingly blew their cover</i> ." - John Cunningham, Oct. 15 1988 (The Guardian)
Fuel wood (2, 3)	Provisioning	Yes (1, 2)	Yes (1, 1)	0	1	" <i>Firewood is an increasingly important market</i> , especially for early hardwood thinnings and the disposal of lop and top." - Tiney-Bassett 1988	"As for the stricken and unsaleable wood, <i>maybe Kent will again become a county of charcoal-burners</i> ." - John Cunningham, Oct. 15 1988 (The Guardian)
Timber (15, 146)	Provisioning	Yes (11, 136)	Yes (4, 10)	2	8	"Only 7 species were recorded in 1988 and <i>most were timber species</i> (Table 1). The <i>apparent lack of species present in 1988 probably reflects</i> not only the difficulty of finding small seedlings of species such as birch and willow during their first growing season, but also <i>the interest in mainstream forestry species that prevailed at the time, which may have lead to the under-recording of minor species</i> ." - Harmer et al. 2004	"Now the <i>Forestry Commission finds itself quite profitably with the job of satisfying the demand</i> that has grown and grown since Prince Albert imported the very first Christmas tree from his homeland." - Nov. 7 1983 (The Journal)  "Surprisingly, <i>timber from fallen trees do not now grace furniture showrooms and living rooms but had to be burned</i> . Tree manager David Frost said: ' <i>There was such a glut of timber, merchants were very choosy and did not take our trees because many were damaged by their falls</i> and because of the shrapnel.'" - Oct. 14 1988 (The Gazette)
Canopy cover (3, 3)	Regulating	No	Yes (3, 3)	0	3	NA	"But in its wake has come a new public enthusiasm for trees – and <i>plans for a far leafier landscape</i> ." - Oct. 14 1988 (The Gazette)
Carbon storage (2, 5)	Regulating	Yes (1, 2)	Yes (1, 3)	0	3	"On average, <i>native UK oak takes 300 years to reach maximum carbon sequestration rates</i> (Matthews, 1989), hence, <i>storm events causing immediate oak mortality and inhibiting optimal carbon storage are of major concern</i> " - Halstead et al. 2024	" <i>Trees can help offset the menacing greenhouse effect by exchanging oxygen for carbon dioxide</i> ." - Stephen Lacey, Nov. 24 1990 (The Daily Telegraph)
Pollution mediation (1, 1)	Regulating	No	Yes (1, 1)	0	1	NA	"Garden owners clearly have an important job to set their minds to this autumn, especially as most of us live on the outskirts of towns where <i>trees can do most good in combatting pollution</i> and encouraging birds to nest." Stephen Lacey, Nov. 24 1990 (The Daily Telegraph)

Biodiversity (33, 86)	Supporting, Regulating	Yes (14, 53)	Yes (5, 8)	3	5	"Consequently, those interested in nature conservation <i>generally viewed the storm as beneficial as it introduced a greater variety of habitats into many woodlands</i> , which provided <i>opportunities for a wide range of species</i> (e.g. gaps of varying size and standing/fallen deadwood). One ecologist, who had spent a significant amount of time assessing the effects of the storm, <i>thought that greater ecological damage was caused by subsequent forest operations rather than by the storm itself</i> (Whitbread, 1991a)." - Harmer 2012	"Oak trees <i>support a good variety of insects which attract birds and so create a desirable habitat</i> ." - Mike Chittenden, Mar. 24 1990 (Herald Express)
Wildlife habitat (13, 31)		Yes (10, 27)	Yes (3, 4)	0	4	"Of course, <i>this has to be balanced against the loss of many mature trees and their associated habitats</i> – for example <i>several moribund beech that were uprooted on Ashford Hill were of invertebrate interest</i> ." - Mountford and Ball 2011	"Twenty trees are in the lakes. Quite attractive. <i>Good for kingfishers</i> ." - John Cunningham, Oct. 15 1988 (The Guardian)
Rare species (14, 25)		Yes (7, 14)	Yes (7, 11)	2	9	" <i>There are rare trees that are known to grow in the area of storm damage</i> , but were not in the records of species blown down. <i>Many of these species are growing in exposed areas of Kew and Wakehurst and were subjected to the strong winds and survived, so they should not be overlooked as potential subjects for future planting</i> ." - Cutler et al. 1991	"He has gone on to find <i>some record rare oaks and many huge specimens</i> not recorded before ... " - Alan Mitchell, Jan. 29 1983 (The Guardian)  "Mature trees and shrubs and <i>rare specimens which are many generations old</i> have been lost." - Oct. 29 1987 (Leatherhead)
Tall trees (12, 28)	Intrinsic value	Yes (4, 7)	Yes (8, 21)	13	8	"Unfortunately the majority of the trees destroyed were mature and were, <i>in some cases, over 100 feet high</i> ." - Hall 1987	"Maynard Greville acquired a <i>sudden and intense addiction to big trees</i> just after the war. He surveyed his Essex estate when it was returned to him after its service years as an aerodrome and found that <i>what had been land very well endowed with enormous trees in hedgerows and copses was now bare of any noteworthy stature</i> . His immediate reactions were, he said, that <i>however much he could now plant trees, he would never possess the huge and venerable specimens that he admired</i> . "No use moaning about it here. <i>I'll get on my bike and go look at other peoples' trees</i> ." - Alan Mitchell, Jan. 29 1983 (The Guardian)  "An ancient lime and a chequer, both considered to be the biggest of their kind in the country, are among 186 trees lost and damaged at Scotney Castle garden, near Tunbridge Wells, Kent." - Robert Bedlow, Nov. 13 1987 (Daily Telegraph)
Street trees (3, 3)	Intrinsic value	No	Yes (3, 3)	1	2	NA	"Second, <i>the balance of trees in the streets will be improved with new species chosen to fit the scale of the street</i> and give contrasting leaves, flowers, fruit and bark, as well as fitting in with modern needs such as bus routes and sight lines." - Simon Mares, Dec. 21 1985 (Evening Post)  "As a result it has devised a programme of planting and re-planting which <i>could eventually mean avenues of trees in every street</i> ." - Oct. 14 1988 (The Gazette)
Veteran or ancient trees (23, 65)	Intrinsic value (see note below)	Yes (12, 25)	Yes (11, 40)	7	33	"The appearance of birch in such great numbers has not been welcomed by the public or the National Trust - <i>a young birch wood does not have the same attraction and amenity value as ancient beech/oak woodland</i> ." - Kirby & Buckley eds. 1993	" <i>These trees must have been growing there for at least sixty years, so does man have the right to remove them! I think not</i> ." A.E. Sperris, Oct. 7 1983 (Lichfield Mercury)  "Then the worst storm for more than 200 years hit West London with winds gusting up to 100 mph and <i>trees which had stood the test of time being uprooted in their thousands</i> ." - Oct. 14 1988 (The Gazette)

Ancient trees provide a variety of ecosystem services, alongside their intrinsic value (see Lindenmayer and Laurence 2017, etc.). In the context of this review, veteran and ancient trees are defined as *the ecosystem service itself*, which has intrinsic value to people, rather than being the provider of other ecosystem services. These benefits are already captured in the other ecosystem services appearing in this table (and were coded as such).