Executive Summary

This report provides data analyses and initial interpretation of hedgerow data arising from Countryside Survey 2000. Data are presented from hedgerow diversity plots, D-plots; these are 30 m lengths of hedge, ten recorded at random positions within those 1 km sample squares where hedgerows were present. Woody species and gaps were recorded to estimate their contribution to the total length of hedge in each plot. Width and height of the hedge canopy base were also recorded to supplement other variables recorded as part of the standard Countryside Survey procedure. Data are also presented on hedgerow trees, observed in each square in 1990 and 1998 as either individual trees or lines of trees. A total of 2,393 D-plots were recorded on 520 squares across GB. Of these, 0.2 % contained 10 or more native woody species, while at the other extreme 14 % contained only a single woody species. Species-rich hedgerows are defined by the BAP as containing five or more species in a 30 m length, except in the north of England, upland Wales and Scotland where the number is four. We interpret this as a minimum of five species in Environmental Zones 1 & 2 (the lowlands of England and Wales) and four species elsewhere. By this interpretation, 28 % of hedgerows are species-rich in Environmental Zones 1 & 2 and 38 % in Environmental Zone 3. A total of 26% of all D-plots sampled had five or more woody species.

Gaps constitute only small proportions of hedgerow length, very rarely exceeding 10 % (5 % of all D-plots had gaps accounting for up 10 % of the total length). These figures exclude the vast majority of plots that had no gaps recorded at all. Around 68 % of hedgerows were between 1 - 2m wide and in 69 %, the base of the hedge canopy was less than 0.5 m high. These figures differ little between Environmental Zones, except that Scottish hedgerows tended to be taller than those in England (although based on a much smaller sample).

Around 90 % of hedgerows contained hawthorn (Crataegus monogyna), which was nearly twice as frequent as the species ranked second at the GB level (blackthorn - Prunus spinosa. The rankings of frequency differed between countries and regions; thus while blackthorn was the second most frequent species in England, it was ranked third in Wales and sixth in Scotland. 11 species occurred in 10 % or more D-plots in England, compared with 10 in Wales and only 5 in Scotland.

In 1998 there was an estimated 1.8 million individual (isolated) hedgerow trees in GB, 98 % found in England and Wales, reflecting the distribution of hedgerow lengths. This figure is around 3 % less than in 1990, within the margins of sampling error. The decline of 8 % in tree number in Environmental Zone 1 (the eastern lowlands of England) is, however, statistically significant (p=<0.01). Elm (Ulmus spp.) trees seem to have been lost the most (26 % since 1990), with gains of hawthorn. Oak (Quercus spp.) and ash (Fraxinus excelsior) were the most common species overall.

The majority of trees were recorded as appearing to be over 20 years old. The number of trees in the 1 - 4 year category declined significantly by around 40 %.

By contrast with declines in numbers of individual trees, there were significant increases in the lengths of lines of trees, by 55 % at the GB level. This increase appears too large to be a simple consequence of individual trees growing into lines (i.e. their canopies touching). Further research into the database is needed to clarify the flows between hedgerows, relict hedgerows, lines of trees and individual trees.