



## Background

This bulletin describes the main findings from the *Perceptions of Biodiversity* section in the 2016-2017 National Survey for Wales. Full results and an interactive Results Viewer can be found at <http://gov.wales/statistics-and-research/national-survey/?lang=en>.

A subset of National Survey respondents were asked a series of questions about biodiversity. The following short description of 'biodiversity' was given in the introduction:

*'Biodiversity means the variety of all the different species of wildlife, including animals, insects, and plants, both on the land and in the water'*

The survey asked the following questions about respondents' perceptions of any changes to biodiversity in Wales (rather than nationally or internationally):

- Do you think there *has been* a change in the variety of species in Wales?
- Do you think there *will be* a change in the variety of species in the future in Wales?
- How concerned are you about any changes, past or future, to the variety of species in Wales?
- What action(s) have you taken to help protect the environment or address climate change?

The National Survey for Wales also includes a wide range of questions about demographics, socio-economic factors such as deprivation, and about where people live (such as rural or urban areas). The responses have been weighted to make them representative of the adult population of Wales.

## Key Findings

- Perceptions of *past changes* to biodiversity in Wales were divided, with an almost equal number thinking that there had been a decrease in biodiversity (39%) or 'no change' (38%). Surprisingly, a substantial proportion of respondents thought that there had been an increase in the variety of species in Wales (24%).
- A higher proportion of people thought that there will be a change in biodiversity in Wales in the *future*, with only 23% thinking there will be 'no change'. Nearly half of respondents (46%) think there will be a decrease. As with past changes, it was surprising to note that nearly a third of people (31%) think there will be an increase in biodiversity in the future

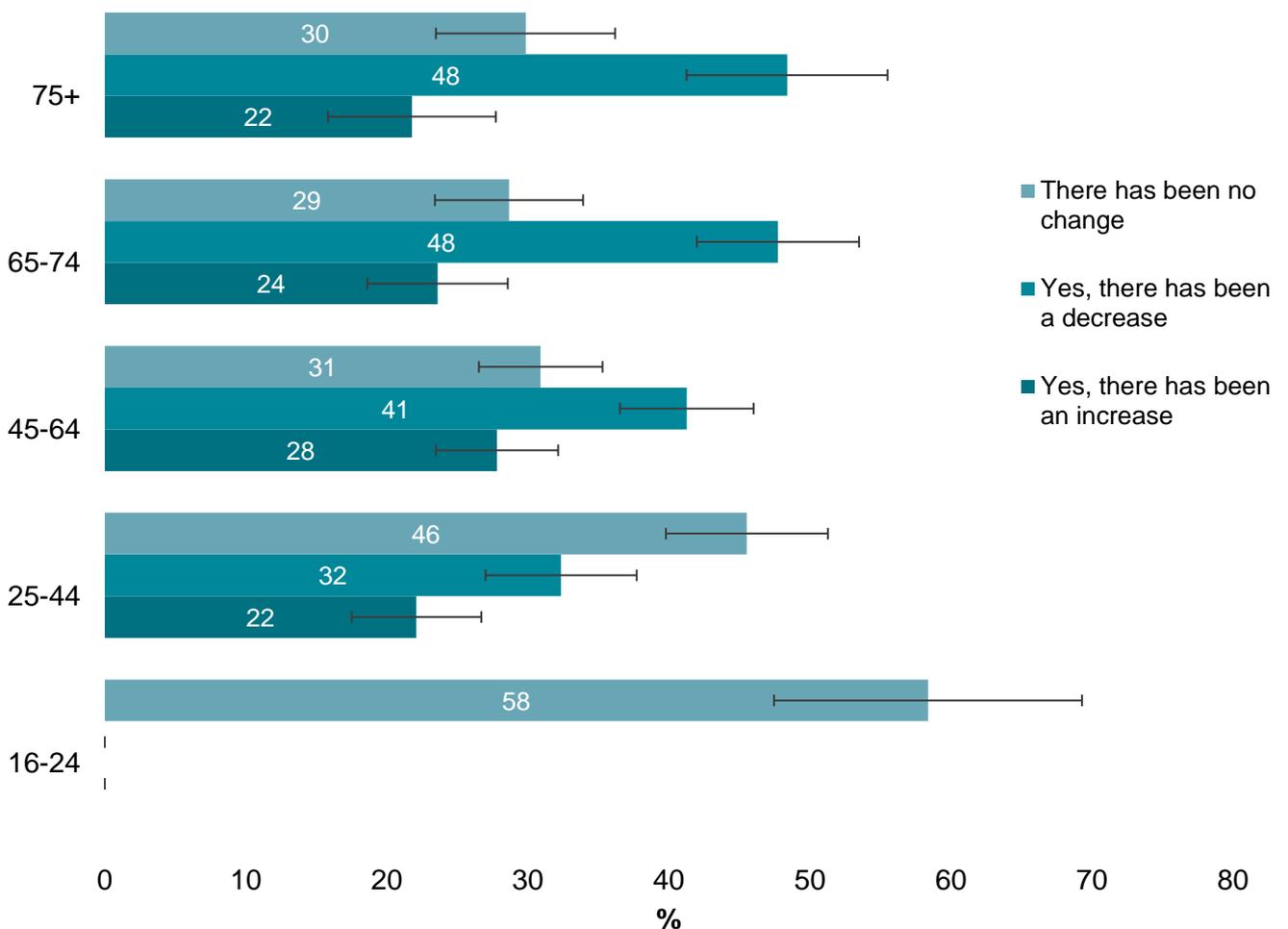
- Level of concern about biodiversity change was measured on a scale of 1 to 5; the average score for adults in Wales was 3.2, indicating quite a high level of concern.
- People who are concerned about biodiversity change are much more likely to carry out pro-environmental behaviours; those who report trying to change policy through petitions or contacting elected representatives also showed the highest levels of concern.

### Past changes to biodiversity in Wales

Respondents were asked if they thought there had been a change in the variety of species in Wales. An almost equal number of people thought that there had been either 'decrease' in biodiversity, or 'no change'. Surprisingly, approximately one in four people thought that there had been an 'increase' in biodiversity in Wales.

There was a noticeable difference in perceptions about past changes to biodiversity associated with age. Older people were much more likely to think that there had been a decrease in biodiversity compared to younger adults (48% of 65+ compared to 32% of 25-44 year olds).

Fig. 1 – Perception of change in biodiversity by age group



The youngest people were most likely to say there had been 'no change' (58% of 16-24 year olds), although the small sample size at this age group makes firm conclusions difficult. The 'decrease' and 'increase' response options in this age group are not shown in Figure 1, because the number of respondents was too small.

Perceptions of a decline in biodiversity also appears to be moderated by education level, but not in a straightforward way. The educational groups most likely to agree that there has been a decrease are those with qualifications at National Qualifications Framework Level 4 (A-Level or equivalent) or above, and those with no qualifications. Forty-one per cent of both groups agree that biodiversity has declined. The group least likely to agree that there has been a decrease are those with qualifications at NQF Level 3 (GCSE A\*-C), 69% of whom believe that biodiversity in Wales has not changed or has increased.

### Future changes to biodiversity in Wales

Nearly half of respondents (46%) thought that there would be a decrease in biodiversity in the future, whilst just under a third (31%) held the opposite view and thought that there will be an increase. Approximately 1 in 4 people (23%) didn't think that there would be any change to the variety of species in Wales in the future.

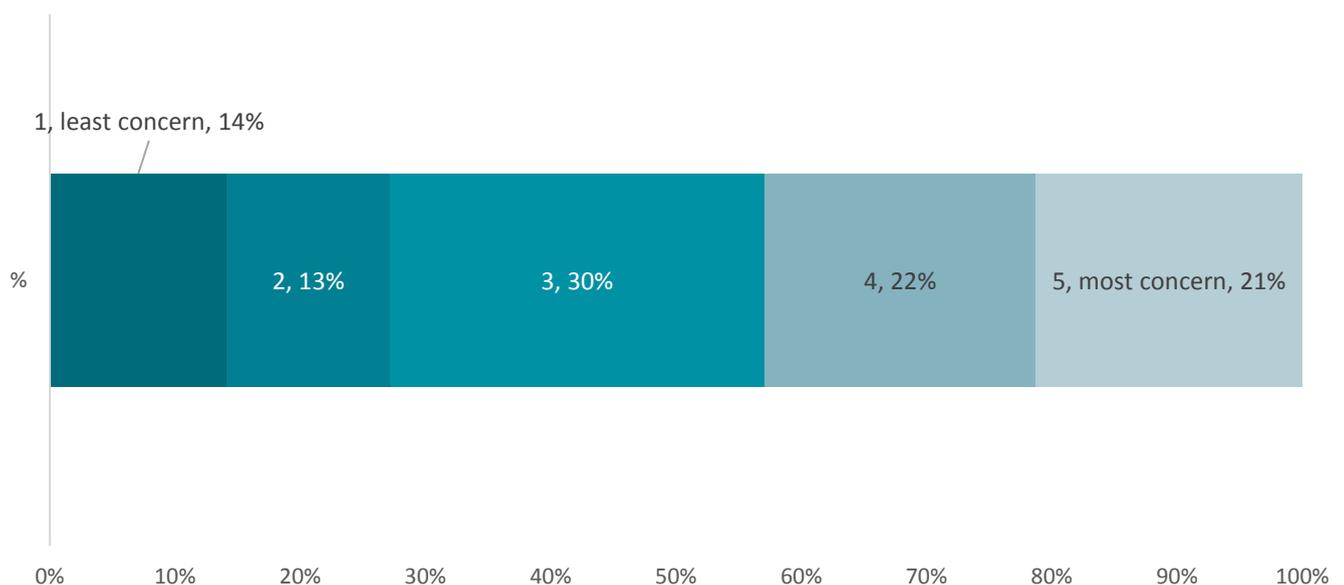
Unlike the perceptions relating to past changes to biodiversity, there was little difference in views about future changes in relation to age. However, in general women were slightly more likely than men to think that there will be a decrease in biodiversity in the future.

Level of education again influenced responses - those with A-Level or equivalent qualifications were significantly more likely than others to say they expected a decrease in biodiversity in Wales in the future.

### Level of concern about changes to biodiversity

People were asked how concerned they were about *any changes*, past or future, to the variety of species in Wales, on a scale from 1 to 5, where 5 is the most concerned. The mean concern score for adults in Wales as a whole was 3.2.

Fig. 2 – Levels of concern about biodiversity change (least to most concerned)

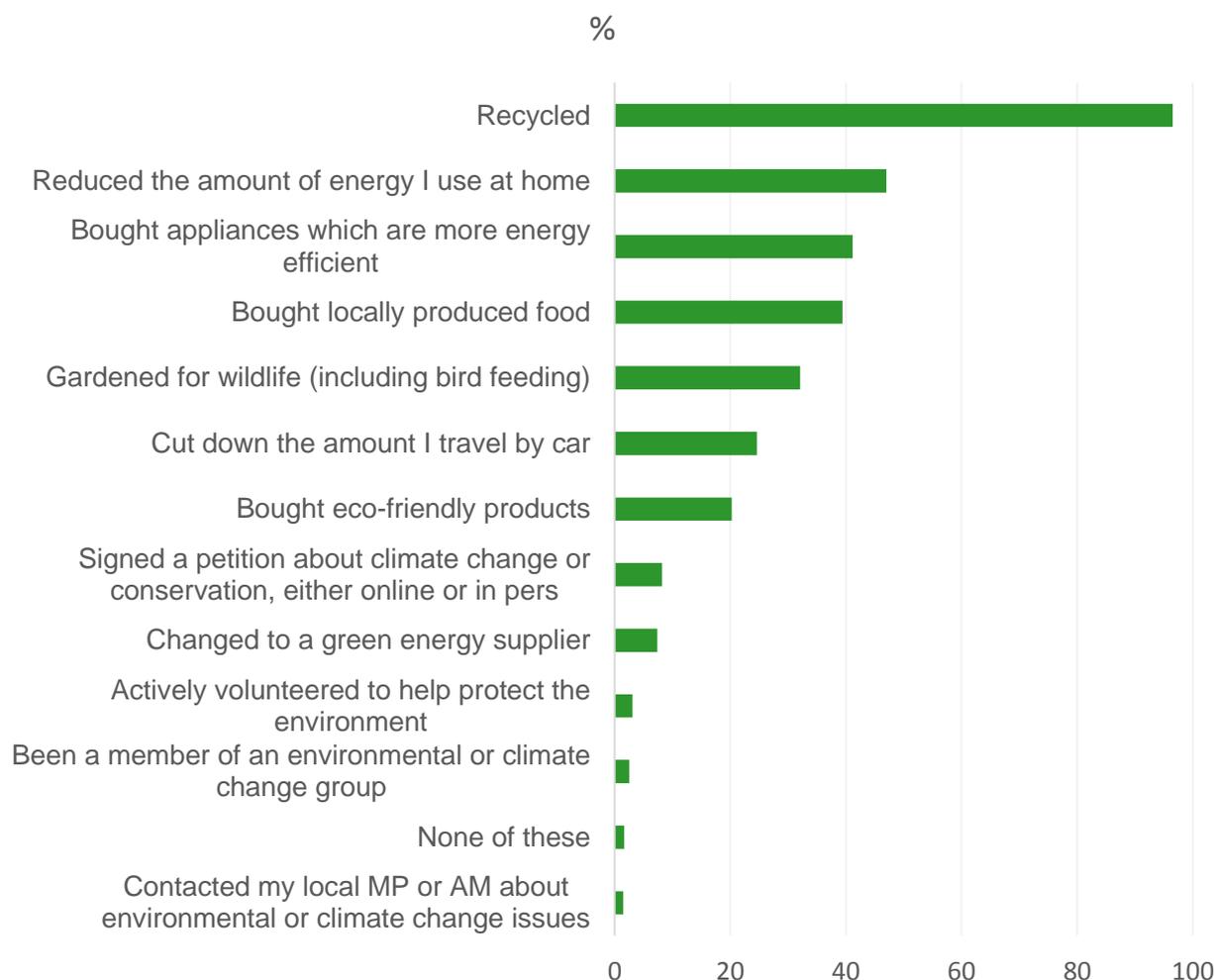


In general, the effects of demographic and social variables on level of concern about biodiversity change were small. Those aged under 45 were slightly less concerned than the average, and those between 45 and 74 slightly more concerned. There were no significant effects relating to gender or material deprivation. Respondents with A-Level or equivalent qualifications were slightly more concerned than those without.

### Concern and behaviours

The survey asked people if they had done any activities over the last 12 months to help protect the environment or address climate change. These ranged 'everyday' behaviours such as recycling, to household energy efficiency measures, 'green' consumerism, and environmental volunteering. Unsurprisingly, recycling was by far the most commonly undertaken activity. Interestingly, nearly half of respondents had reduced their home energy use (47%), or bought energy efficient appliances (41%), although only 7% had changed to a green energy supplier. One in four people said that they had cut down on car travel, but only 3% of respondents had been an active volunteer or member of an environmental group.

Fig. 3- Actions taken to protect the environment or address climate change



- There was an interesting, and complex, relationship between actions and age. The youngest respondents (16-24) were less likely to undertake a number of behaviours, such as reducing car use, environmental consumerism, gardening for wildlife, or volunteering. This may not reflect attitudes; the youngest respondents are less likely to have a car, their own garden, or to have choices about household buying. Participation in actions to protect the environment or address climate change is highest amongst in the 25 – 44 and 45 – 64 age groups.
- Respondents living in material deprivation were less likely to undertake any of the possible actions, with the exception of signing a petition.
- Levels of concern about biodiversity change are strongly related to pro-environmental behaviours; for each activity, respondents who reported doing them showed a higher level of concern than those who didn't. The very highest levels of concern (scores over 4) were shown by those who reported doing activities broadly related to changing policy, such as contacting elected representatives, signing petitions, and joining pro-environmental groups. Those who volunteered to help protect the environment also reported high levels of concern about biodiversity change (with an average score of around 3.9).
- Pro-environmental behaviours also appear to be strongly related to perceptions about past and future biodiversity change. Those who thought that there had been a decrease in biodiversity are on average 18% more likely to carry out pro-environmental behaviours than those who think there's been an increase, and 13% more likely to do so than those who think there's been no change.
- Expected future changes to biodiversity are even more strongly related to pro-environmental behaviours. Those who expect there will be a decrease in biodiversity in Wales are 32% more likely to report doing any of the behaviours in Fig. 3 than those who expect no change and 18% more likely than those who expect an increase in biodiversity.
- Those making frequent (more than 20 visits in 4 weeks) visits to the outdoors are slightly more likely to perceive that biodiversity has changed than those who make less frequent visits. However, frequent visitors are no more likely than others to perceive a *decrease* in biodiversity in Wales; they are approximately 5% more likely to perceive an *increase*. There is a significant (although extremely weak<sup>1</sup>) relationship between frequency of outdoor recreation and level of concern about biodiversity.

## Metadata

Natural Resources Wales (NRW) is a partner in the new National Survey for Wales; this is NRW's fourth publication from the 2016-17 Survey.

Technical information on the Survey, including confidence intervals for all survey items, is available from Welsh Government at the main survey page and at <http://gov.wales/statistics-and-research/national-survey/design-methodology/technical-information/?lang=en>.

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<sup>1</sup> Correlation co-efficient 0.58, p<0.001.

The information within this report is categorised as Official Statistics, and has been produced and published according to arrangements approved by the UK Statistics Authority.

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