

## Population Projections for National Parks in Wales, 2008-based

### Introduction

This statistical release analyses the results from the 2008-based population projections for the three National Parks in Wales: Brecon Beacons, Snowdonia and Pembrokeshire Coast. These projections are based on a similar methodology to that used to produce the 2008-based local authority population projections for Wales. The projections provide estimates of the size of the future population, and are based on assumptions about births, deaths and migration. The assumptions are generally based on past trends. Projections done in this way do not make allowances for the effects of local or central government policies on future population levels, distribution and change.

Population projections are used for planning services, to estimate future needs and to identify trends that shape the context for future policy developments. Population projections are also the basis for producing household projections, which are used for housing planning purposes, including in National Park Local Development Plans.

The quality information section at the end of this release provides further information on the methodology used to produce these projections. This release provides results for the first 15 years of the projection period (mid-2008 to mid-2023). An annex is included at the end of the release which presents results for the full 25 years projection period.

### Key results 2008 to 2023

- All National Parks are projected to see an increase in population between 2008 and 2023.
- Brecon Beacons' population is projected to increase from 32,700 in 2008 to around 33,300 in 2023, an increase of 2.0 per cent.
- Pembrokeshire Coast's population is projected to increase by 1.5 per cent from 22,100 in 2008 to 22,500 in 2023 before decreasing.
- Snowdonia's population is projected to increase from 25,700 in 2008 to 26,600 in 2023, an increase of 3.5 per cent.
- The projected increase in population in National Parks in Wales is driven by in-migration from other parts of Wales and the UK. The number of deaths is projected to exceed the number of births (negative natural change) throughout the projection period and in each National Park. This is due to the older age profiles of the populations in National Parks compared to other areas.
- All the National Parks are projected to see significant increases in the population aged 65 and over and a decrease in the population aged under 65.

The following sections analyse the projection by age groups. Population pyramids for each National Park are also published within the release.

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## Projected Population - All ages

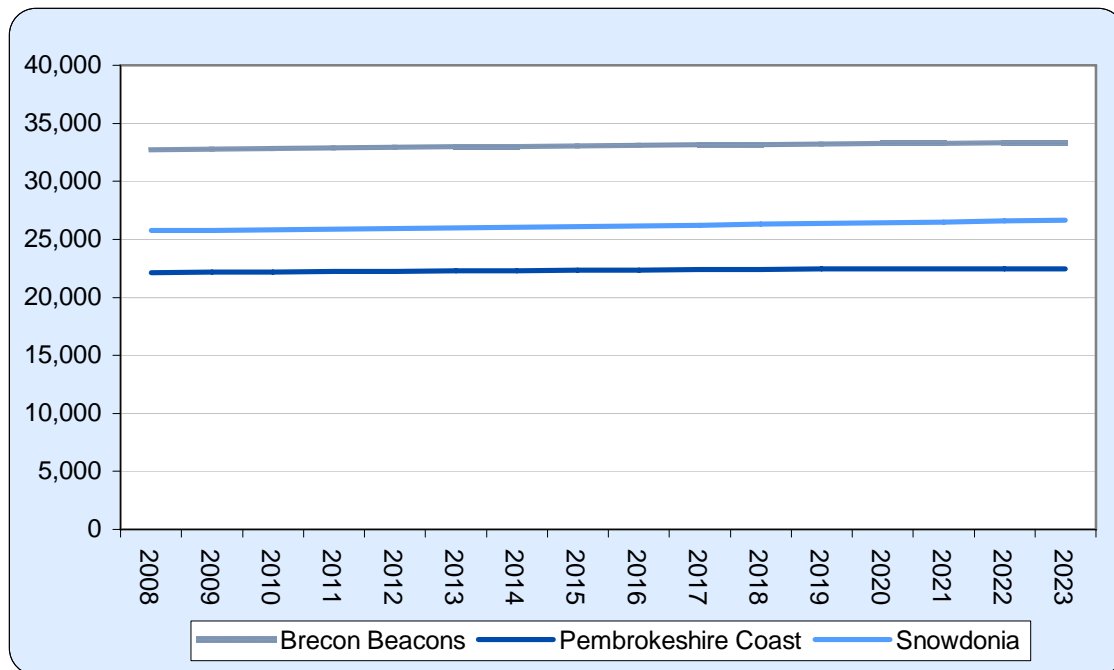
**Table 1: Population projections, National Park areas, selected years.**

	Population levels (thousands)			
	Actual	Projected		
	2008	2013	2018	2023
Brecon Beacons	32.7	33.0	33.2	33.3
Pembrokeshire Coast	22.1	22.3	22.4	22.5
Snowdonia	25.7	26.0	26.3	26.6

**Table 2: Projected population change, National Park areas, selected years.**

	Percentage change		
	2008-	2008-	2008-
	2013	2018	2023
Brecon Beacons	0.8	1.4	2.0
Pembrokeshire Coast	0.7	1.3	1.5
Snowdonia	0.9	2.1	3.5

**Chart 1: Projected population for National Parks, 2008 to 2023.**



Between mid-2008 and mid-2023 it is projected that all the National Parks in Wales will experience an increase in population.

Brecon Beacons' population is projected to increase from 32,700 in 2008 to around 33,300 in 2023 (an increase of 2.0 per cent). The Brecon Beacons is projected to see around 150 more people move into than leave the area each year (positive net migration of 150 persons a year). Natural change is projected to be negative with more deaths than births throughout the projection period. The margin by which deaths exceed births is projected to increase over the projection period. This is due to a projected decrease in the number of births and a projected increase in the number of deaths, as the average age of the population increases. The projected decrease in the number of births is due to a projected decrease of 20 per cent in the number of women of childbearing age (15-49) living in the National Park.

Pembrokeshire Coast's population is projected to increase by 1.5 per cent from 22,100 in 2008 to 22,500 in 2023, before subsequently decreasing. Pembrokeshire is projected to see a positive net migration of around 80 persons each year with negative natural change throughout the projection period. As the population ages, deaths are projected to increase and births are projected to decrease. As a result, in Pembrokeshire Coast natural change is projected to become increasingly negative over the projection period leading to a lower rate of population growth.

Snowdonia's population is projected to increase from 25,700 in 2008 to 26,600 in 2023, an increase of 3.5 per cent. As with the other National Parks, Snowdonia is projected to experience positive net migration of around 100 persons each year and negative natural change throughout the projection period. Natural change is projected to be negative due to the older age profile of the population in Snowdonia National Park compared to other areas.

By comparison, Wales's population is projected to increase by 7.7 per cent between 2008 and 2023.

## Population Structure

The population pyramids below show the population in each National Park in 2008 and the projected population in 2023.

### Brecon Beacons National Park

Figure 1: Population Pyramid showing the population by age group and gender in Brecon Beacons in 2008

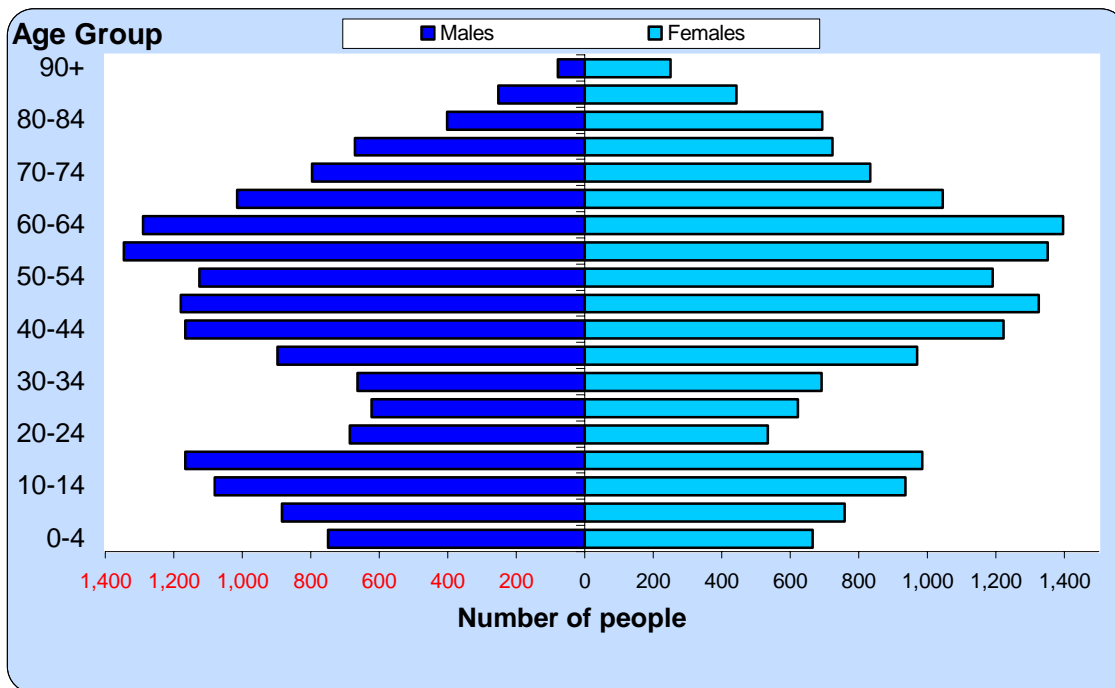
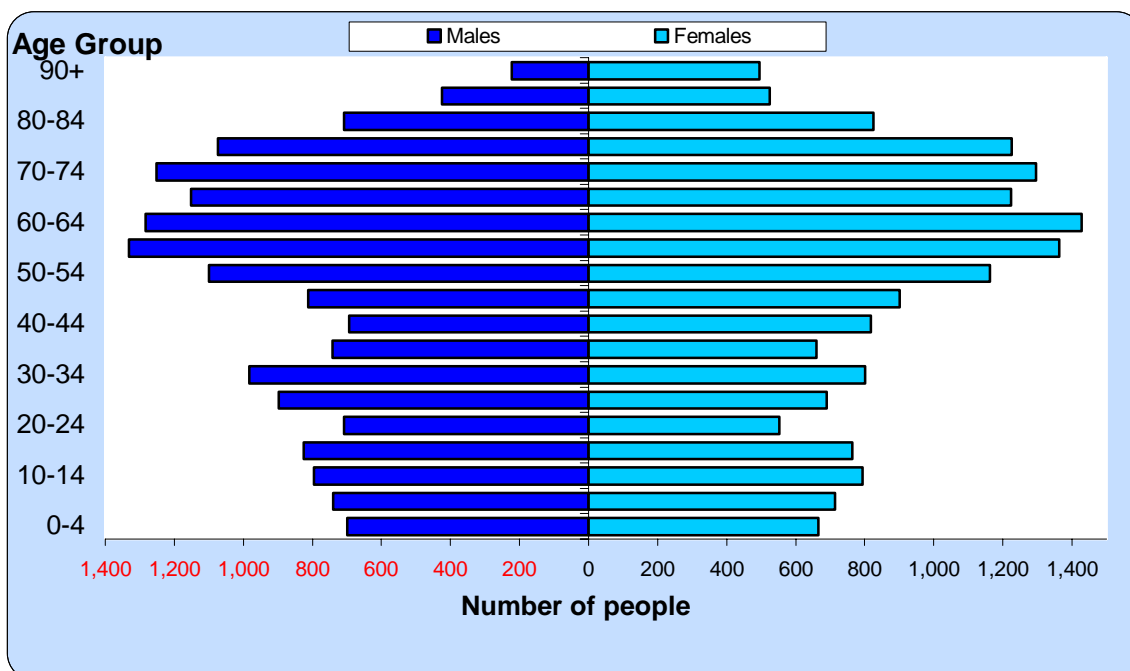


Figure 2: Population Pyramid showing the projected population by age group and gender in Brecon Beacons in 2023



## Pembrokeshire Coast National Park

Figure 3: Population Pyramid showing the population by age group and gender in Pembrokeshire Coast in 2008

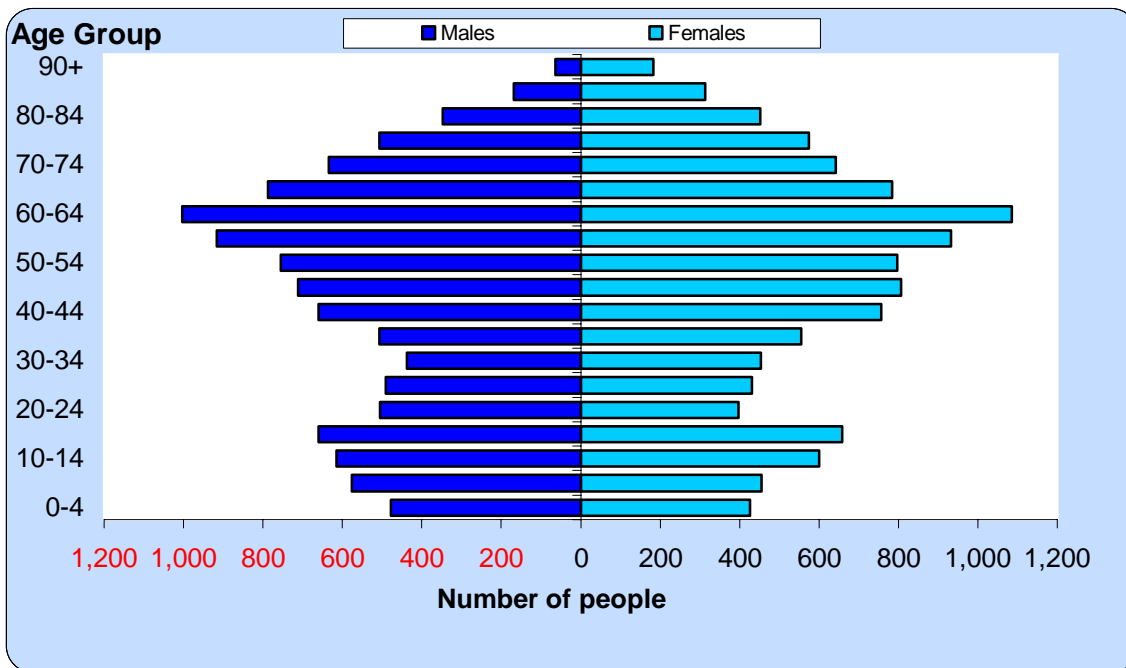
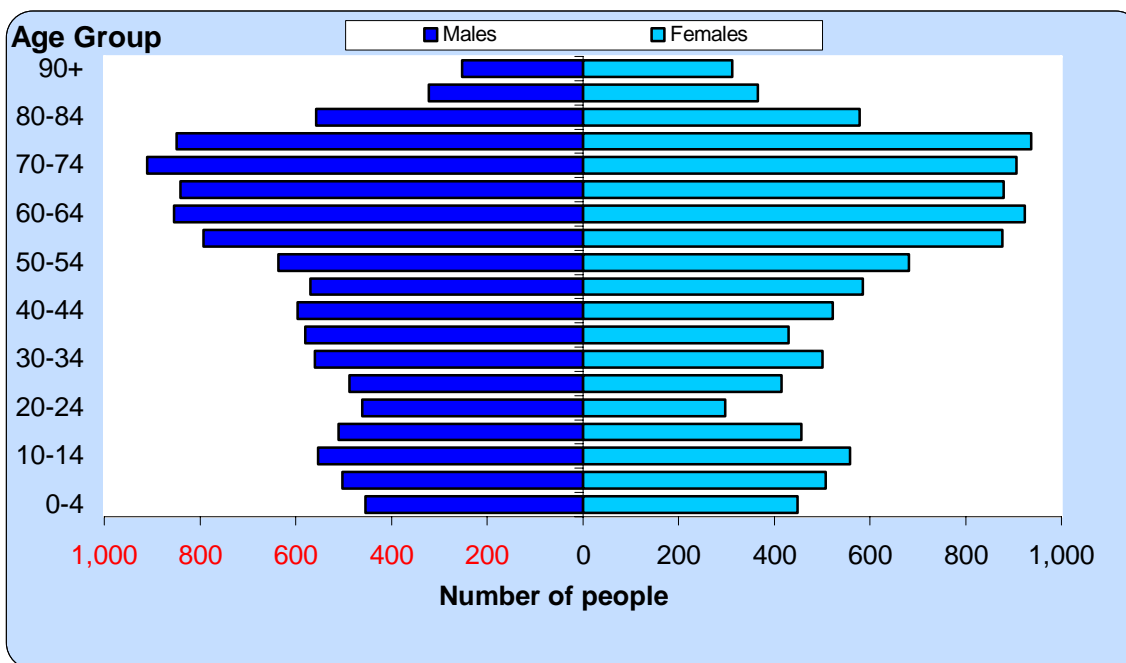


Figure 4: Population Pyramid showing the projected population by age group and gender in Pembrokeshire Coast in 2023



## Snowdonia National Park

Figure 5: Population Pyramid showing the population by age group and gender in Snowdonia in 2008

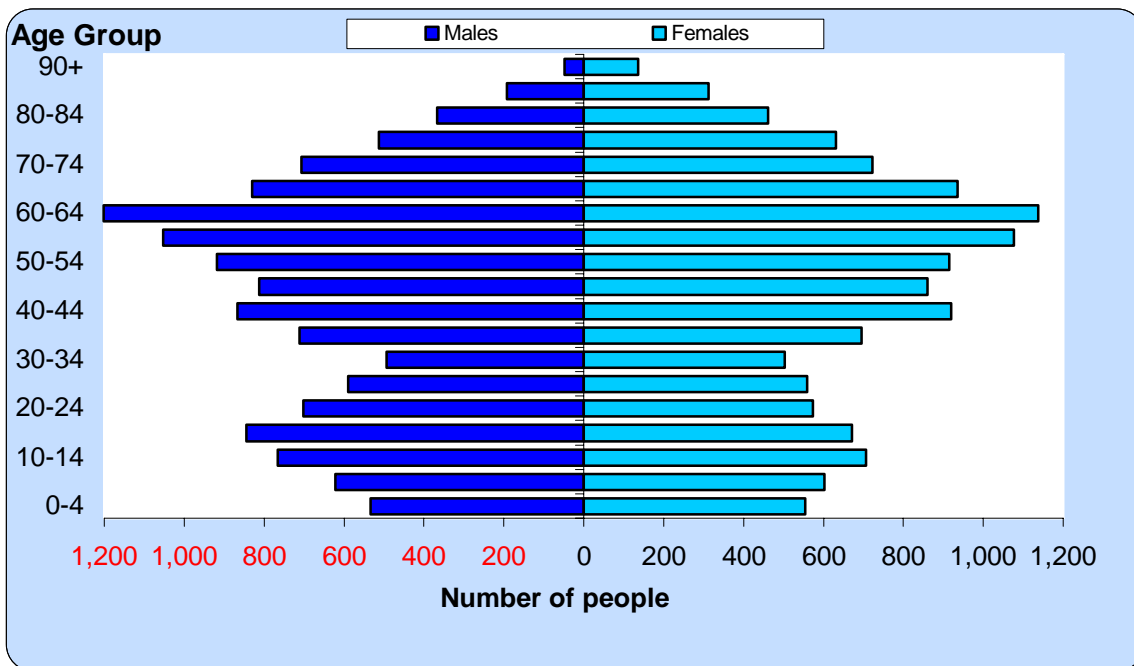
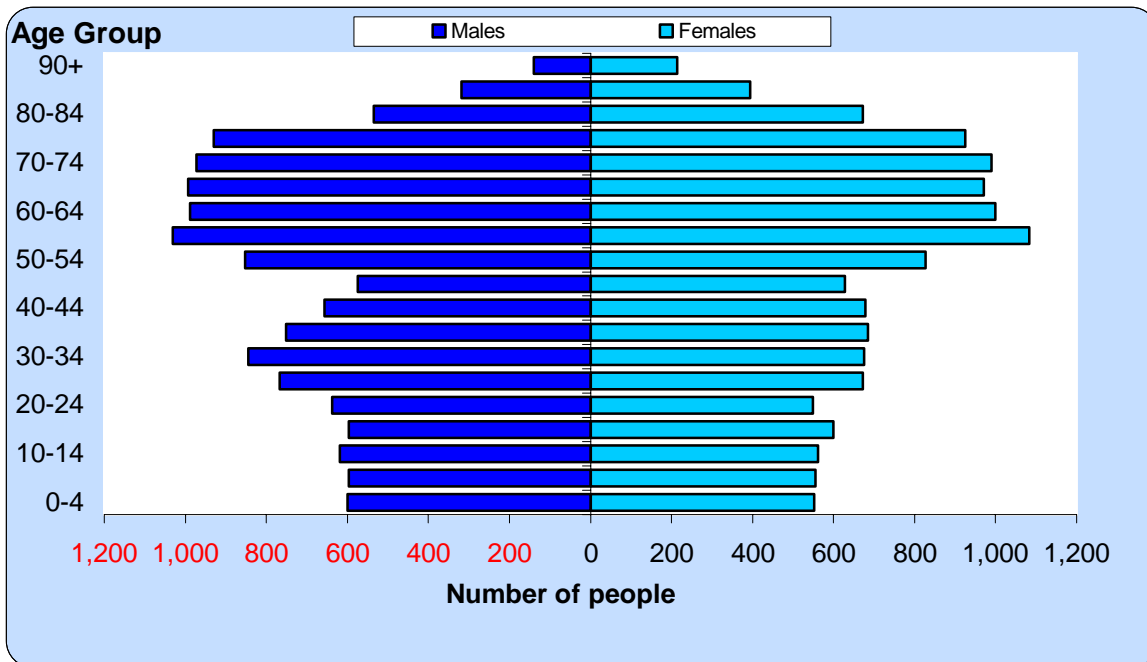


Figure 6: Population Pyramid showing the projected population by age group and gender in Snowdonia in 2023



All the National Parks are projected to see an increase in the number of older people between 2008 and 2023. The effect of this is shown by the pyramids becoming more top-heavy by 2023.

The proportion of the population aged 65 and over is projected to increase significantly in each National Park between 2008 and 2023. The proportion of people aged 65 and over in Brecon Beacons National Park is projected to increase from 22 per cent to 31.3 per cent, in Pembrokeshire from 24.7 per cent to 34.3 per cent and Snowdonia from 22.8 per cent to 30.3 per cent. In comparison the proportion of Wales's population which is aged 65 and over is projected to increase from 18 per cent in 2008 to 22.8 per cent in 2023.

The proportion of the population that is male is projected to increase in all of the National Parks between 2008 and 2023 and to become more than 50 per cent in Pembrokeshire and Snowdonia. This is a result of higher projected number of males than females migrating into Pembrokeshire and Snowdonia National Parks each year and because nationally the male life expectancy rate is increasing faster than the female life expectancy rate.

## Projected Population Aged under 16

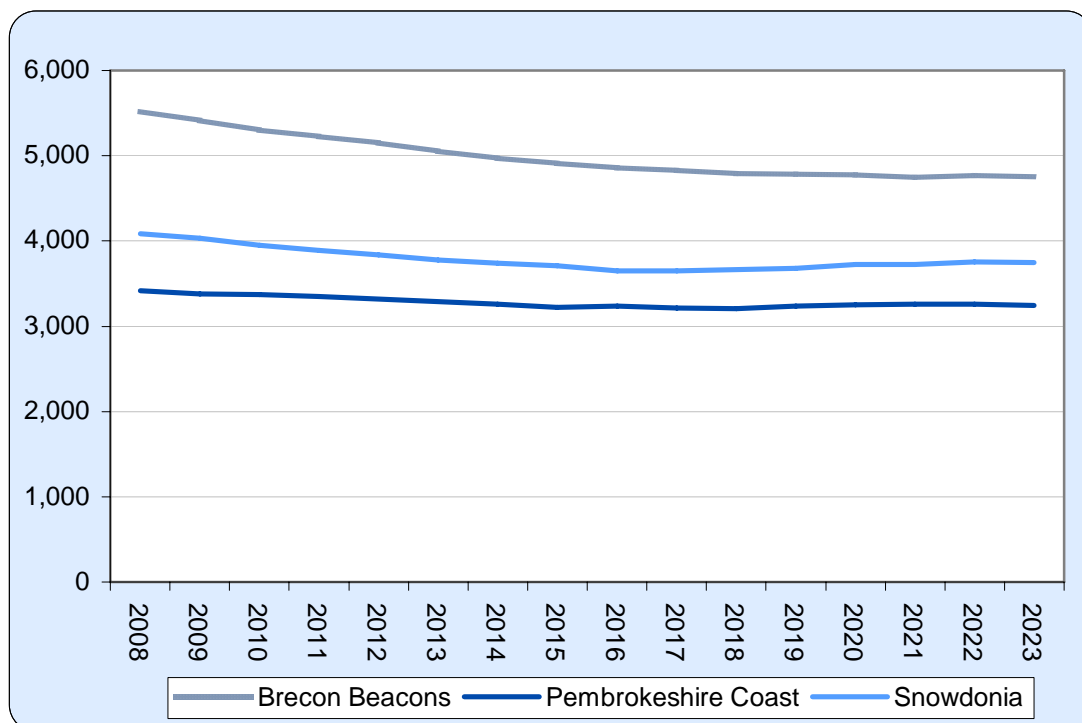
**Table 3: Population projections for persons aged under 16, National Parks in Wales, selected years.**

	Population levels (thousands)			
	Actual	Projected		
	2008	2013	2018	2023
Brecon Beacons	5.5	5.1	4.8	4.8
Pembrokeshire Coast	3.4	3.3	3.2	3.2
Snowdonia	4.1	3.8	3.7	3.7

**Table 4: Projected population change for persons aged under 16, National Parks in Wales, selected years.**

	Percentage change		
	2008-	2008-	2008-
	2013	2018	2023
Brecon Beacons	-8.4	-13.2	-13.9
Pembrokeshire Coast	-3.7	-6.1	-5.0
Snowdonia	-7.4	-10.3	-8.2

**Chart 2: Projected population for National Parks in Wales, for persons aged under 16, 2008 to 2023.**





The population aged under 16 in each National Park is projected to decrease throughout the projection period. This contrasts with Wales's national projection for those aged under 16, which is projected to increase by 4.7 per cent between 2008 and 2023.

The population aged under 16 in the Brecon Beacons is projected to initially decrease to 4,700 in 2021 before remaining relatively constant in the early-2020s, then slightly decreasing until 2033. Overall, the population aged under 16 in Brecon Beacons is projected to decrease from 5,500 in 2008 to 4,800 in 2023, a decrease of 13.9 per cent.

Pembrokeshire Coast's population aged under 16 is projected to decrease until 2015 to 3,200 then remain relatively constant for the next ten years, then decrease from 2025 to 2033. Overall, the population aged 16 and under in Pembrokeshire Coast is projected to decrease from 3,400 in 2008 to 3,200 in 2023 a decrease of 5 per cent.

The trend in the population aged under 16 is driven by the trends in births and migration. The number of births is projected to fall in the Brecon Beacons and Pembrokeshire Coast due to net out-migration of young people aged 15-19 before having children. This in turn leads to fewer births and a further decline in the population aged under 16.

The population aged under 16 in Snowdonia is projected to decrease to 3,600 in 2016 before increasing until 2022 then decreasing slightly in 2023. Overall, the population aged 16 and under in Snowdonia is projected to decrease by 8.2 per cent from 4,100 in 2008 to 3,700 in 2023. Snowdonia is expected to experience an out-migration of young people aged 15-19 of around 50 persons per year. This causes the population to decrease until 2016, but an increase in women aged 25-44 after that causes births and the population aged under 16 to increase.

### Projected Population aged 16-64

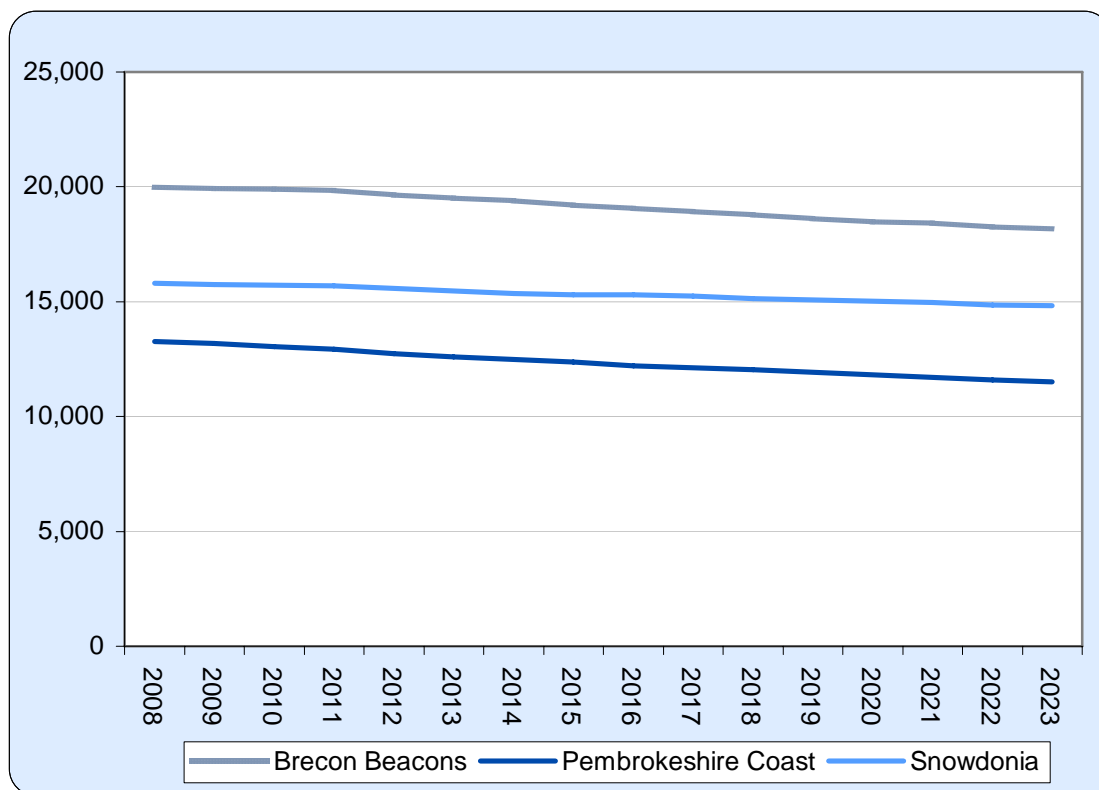
Table 5: Population projections for persons aged 16-64, National Parks in Wales, selected years.

	Population levels (thousands)			
	Actual	Projected		
	2008	2013	2018	2023
Brecon Beacons	20.0	19.5	18.8	18.2
Pembrokeshire Coast	13.3	12.6	12.0	11.5
Snowdonia	15.8	15.5	15.1	14.8

Table 6: Projected population change for persons aged 16-64, National Parks in Wales, selected years.

	Percentage change		
	2008-	2008-	2008-
	2013	2018	2023
Brecon Beacons	-2.3	-6.0	-9.1
Pembrokeshire Coast	-5.0	-9.3	-13.1
Snowdonia	-2.1	-4.1	-6.2

Chart 3: Projected population for National Parks in Wales, for persons aged 16-64, 2008 to 2023.



Wales' population aged 16-64 is projected to fluctuate slightly between 2008 and 2023 but remain relatively constant, increasing by 0.7 per cent between 2008 and 2023. By contrast the National Parks are all projected to see their population aged 16-64 decrease. This is caused by two factors. Firstly, all the National Parks are projected to have more deaths than births (negative natural change). Secondly, all National Parks are projected to have a large net out-migration of young people aged 15-19, which in time causes the working age population to fall in all cases.

Brecon Beacons population aged 16-64 is projected to decrease by 9.1 per cent over the projection period from 20,000 in 2008 to 18,200 in 2033.

The population aged 16-64 in Pembrokeshire Coast is projected to decrease by 13 per cent over the projection period from 13,300 in 2008 to 11,500 in 2023.

The population aged 16-64 in Snowdonia is projected to decrease to 15,300 in 2014 before remaining relatively constant until 2017, and then decreasing again until 2023. The population is projected to decrease from 15,800 in 2008 to 14,900 in 2033, a 6.2 per cent decrease. The decrease in the population aged 16-64 in Snowdonia is less than in the other National Parks due to a net in-migration of people aged 20-44.

## Projected Population aged 65 and over

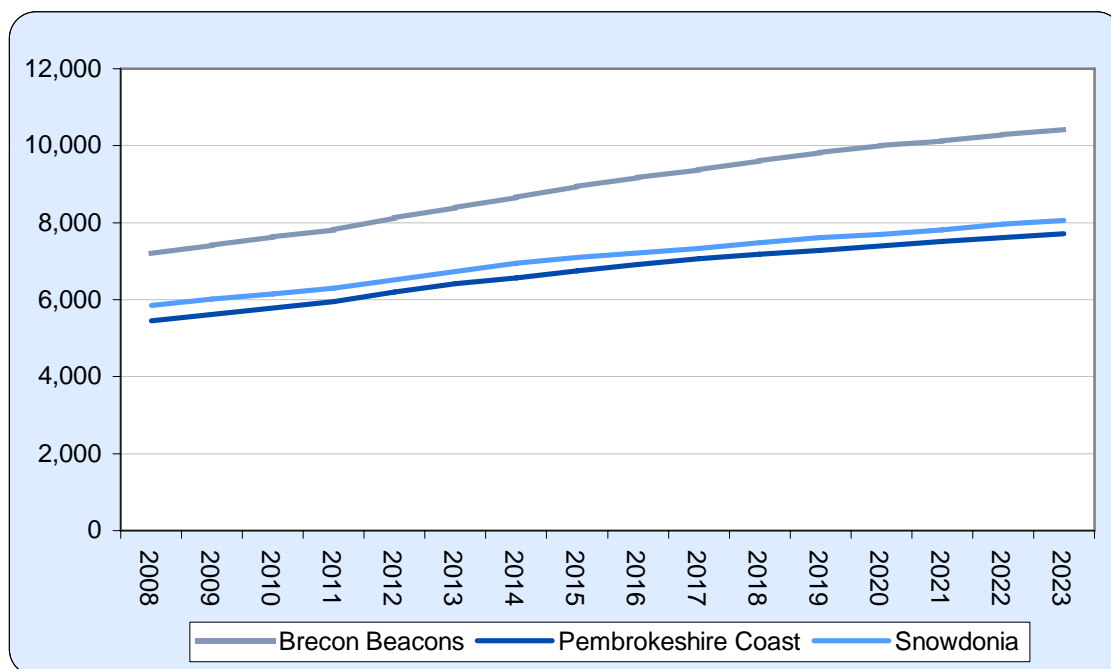
**Table 7: Population projections for persons aged 65 and over, National Park in Wales, selected years.**

	Population levels (thousands)			
	Actual	Projected		
	2008	2013	2018	2023
Brecon Beacons	7.2	8.4	9.6	10.4
Pembrokeshire Coast	5.5	6.4	7.2	7.7
Snowdonia	5.9	6.7	7.5	8.1

**Table 8: Projected population change for persons aged 65 and over, National Park in Wales, selected years.**

	Percentage change		
	2008-	2008-	2008-
	2013	2018	2023
Brecon Beacons	16.6	33.3	44.7
Pembrokeshire Coast	17.4	31.5	41.3
Snowdonia	14.9	27.8	37.6

**Chart 4: Projected population for National Parks in Wales, for persons aged 65 and over, 2008 to 2023.**



The population aged 65 and over is projected to increase considerably in each National Park in Wales between 2008 and 2023; all National Parks are projected to see their population aged 65 and over increase by a third or more. This reflects a general increase in Wales' population aged 65 and over which is projected to increase by 35.1 per cent over the same period. The increase in the population aged 65 and over is due to increased life expectancy and the cohort of post-war baby boomers reaching pension age.

The largest projected increase in those aged 65 and over is in the Brecon Beacons National Park. Its population aged 65 and over is projected to increase throughout the projection period from 7,200 in 2008 to 10,400 in 2023, an increase of 44.7 per cent.

The population aged 65 and over in Pembrokeshire is projected to increase throughout the projection period from 5,500 in 2008 to 7,700 in 2023, an increase of 41.3 per cent.

The population in Snowdonia aged 65 and over is also projected to increase throughout the projection period from 5,900 in 2008 to 8,100 in 2033, an increase of 37.6 per cent.

Each National Park is projected to experience a net in-migration of older people at ages 50 to 64 which causes the projected growth of the population aged 65 and over to be greater than in other areas.

## Projected Natural Change and Migration

### Natural Change

**Table 9: Projected Number of Births, Deaths and Natural Change by National Park, selected years. (a)**

	Brecon Beacons	Pembrokeshire Coast	Snowdonia
<b>2008/09</b>			
Births	280	190	210
Deaths	380	240	270
Natural Change	-90	-50	-50
<b>2012/13</b>			
Births	270	190	210
Deaths	370	240	260
Natural Change	-110	-50	-50
<b>2022/23</b>			
Births	270	170	230
Deaths	400	250	270
Natural Change	-130	-80	-30

(a) All figures rounded to the nearest 10. As a result Natural change figures may not exactly equal births minus deaths.

Natural change (number of births minus the number of deaths) is projected to be negative for all the National Parks in Wales throughout the projection period. Natural change is also projected to become more negative in the Brecon Beacons and Pembrokeshire, but less negative in Snowdonia between 2008/09 and 2022/23.

- The increased negativity of natural change in the Brecon Beacons and Pembrokeshire is caused by increasing deaths and decreasing births over the projection period. However, in Snowdonia increasing births causes the difference between births and deaths to lessen during the projection period.
- Deaths are projected to increase from 380 to 400 a year in Brecon Beacons and from 240 to 250 a year in Pembrokeshire Coast, however deaths in Snowdonia are projected to remain relatively constant at around 270 a year. This is caused by an ageing population, i.e. a higher proportion of people in the older age groups over time.
- Births are projected to decrease from 280 to 270 a year in Brecon Beacons and from 190 to 170 a year in Pembrokeshire Coast between 2008 and 2023. This decrease in births is due to young people migrating out of the National Parks resulting in a decrease in the number of women of a child-bearing age. However, births are projected to increase in Snowdonia between 2008 and 2023 from 210 to 230 a year, this is caused by a projected increase in the number of women aged 25-44 after 2016.

## Migration

A constant level of migration has been assumed for both in and out migration for each National Park, based on each National Parks' in and out migration over the 5 years from 2003/04 to 2007/08.

**Table 10: Annual migration flows in and out of the National Parks (a)**

	Pembrokeshire		
	Brecon Beacons	Coast	Snowdonia
<b>Total Migration</b>			
In	1,740	1,270	1,240
Out	1,590	1,190	1,140
Net	150	80	100

(a) Figures rounded to the nearest 10

Total Migration includes both internal migration (to and from other parts of the UK) and international migration (to and from parts of the world outside the UK). However, international migration figures for each National Park are very small.

In each year of the projection period it is projected that all the National Parks will experience more people moving in than moving out: Brecon Beacons has a net migration of +150; Pembrokeshire has a net migration of +80 and Snowdonia has a net migration of +100.

## Comparison with the 2006-based population projection for the National Parks in Wales

The Welsh Assembly Government published 2006-based population projections for the National Parks in Wales in March 2010. This section compares the results of the 2006-based and 2008-based projections for National Parks. The 2006-based projections were based on trends over the period 2001 to 2006. The 2008-based projections are based on trends over the period 2002 to 2008. In addition, population estimates for local authority areas in Wales, including National Parks for 2002-2008 were revised in 2010. As a result the 2008-based projections are based on these revised population estimates for National Parks and use revised migration estimates to form the assumptions. More information on these revisions is available at:

<http://www.ons.gov.uk/ons/guide-method/index.html>

Tables 11 and 12 show the change in the projected populations of the National Parks over the first 15 years of the projection period for the 2006-based and 2008-based projections.

**Table 11: Comparison of the 2008-based National Park population projection with the previously published 2006-based National Park population projections .**

	Population levels (thousands)			
	Actual	Projected		
	2008	2013	2018	2023
<b>2008-based National Parks Projections</b>				
Brecon Beacons	32.7	33.0	33.2	33.3
Pembrokeshire Coast	22.1	22.3	22.4	22.5
Snowdonia	25.7	26.0	26.3	26.6
<b>2006-based National Parks Projections</b>				
Brecon Beacons	33.2	33.5	33.6	33.5
Pembrokeshire Coast	22.2	21.8	21.4	20.9
Snowdonia	25.7	25.7	25.6	25.4
<b>Difference (thousands)</b>				
	2008	2013	2018	2023
<b>2008-based projections minus the 2006-based projections</b>				
Brecon Beacons	-0.5	-0.5	-0.4	-0.2
Pembrokeshire Coast	0.0	0.4	1.0	1.6
Snowdonia	0.0	0.3	0.7	1.3



**Table 12: Comparison of the projected population change in the 2008-based National Park population projections and the 2006-based National Park population projections.**

	Percentage change		
	2008- 2013	2008- 2018	2008- 2023
<b>2008-based National Parks Projections</b>			
Brecon Beacons	0.8	1.4	2.0
Pembrokeshire Coast	0.7	1.3	1.5
Snowdonia	0.9	2.1	3.5
	Percentage change		
	2008- 2013	2008- 2018	2008- 2023
<b>2006-based National Parks Projections</b>			
Brecon Beacons	1.4	1.7	1.5
Pembrokeshire Coast	-2.0	-3.9	-6.4
Snowdonia	-0.2	-0.7	-1.5

These tables show the change in the projected populations of the National Parks over the first 15 years of the projection period for both the 2006-based and 2008-based projections.

The 2008-based population projections project that the population of each National Park will increase between 2008 and 2023. This compares to the 2006-based population projections that projected that the population would increase in the Brecon Beacons but decrease in Pembrokeshire Coast and Snowdonia. The projected increase in Brecon Beacons is greater over the 15 year period in the 2008-based projections (2.0 per cent) than the 2006-based projections (1.5 per cent).

For Pembrokeshire Coast and Snowdonia the difference between the 2008-based and 2006-based projections is caused by high assumed level of annual in-migration to the National Parks and lower projected deaths in the 2008-based projections. Brecon Beacons also has lower projected deaths in the 2008-based projections but the level of assumed migration is also lower causing the projected population growth to be slightly lower than for the 2006-based projections.

## Quality Information

### Data Source

Population projections provide estimates of the size of the future population, and are based on assumptions about births, deaths and migration. The assumptions are based on past trends. Projections only indicate what may happen should the recent trends continue. Projections done in this way do not make allowances for the effects of local or central government policies on future population levels, distribution and change.

### Base population

These National Park Population projections are based on the mid-2008 population estimates for National Parks.

These estimates are available on the following website.

<http://www.statistics.gov.uk/statbase/product.asp?vlnk=15094>

Full guidance on the methodology used by the ONS to produce the population estimates can be accessed at:

[http://www.statistics.gov.uk/about/methodology\\_by\\_theme/sape/default.asp](http://www.statistics.gov.uk/about/methodology_by_theme/sape/default.asp)

### Revisions

ONS in partnership with other organisations have a long-term programme of work on improving migration and population statistics. This means that population estimates are subject to regular revisions, a revised set of National Park population estimates for 2002-2008 were published on the 13<sup>th</sup> January 2011.

More information on this project can be accessed below:

<http://www.ons.gov.uk/ons/guide-method/index.html>

The 2008-based National Park population projections for Wales are based on revised population estimates.

### Methodology

These projections are based on the same methodology as the 2008-based Local Authority population projections. Detailed information on this methodology is given in the associated Technical Report:

[Welsh Assembly Government | 2008-based Local Authority Population Projections: Technical Report](#)

For the National Park projections, fertility, mortality and migration data was obtained from the Office for National Statistics for the three National Parks and used to form assumptions. The methodology only differed when the required data was not available at a National Park level. The only special population group included in the National Park population projections were the home armed forces.

### Frequency

The next set of Local Authority and National Park projections are likely to be published from late 2013 onwards. These will be based on the 2011 population estimates for Wales.

## Annex

The following tables present the projections results up to mid-2033. Please note however that projections become more uncertain the further they are carried forward, hence the inclusion here. The 2008-based National Park projections are based on past trends of births, deaths and migration, and only indicate what might happen should these past trends continue. They do not make allowances for the effect of local or central government policies on future population levels, distribution and change.

**Table A: Population projections, National Parks in Wales, selected years up to 2033**

	Population levels (thousands)				
	Actual		Projected		
	2008	2013	2018	2023	2033
Brecon Beacons	32.7	33.0	33.2	33.3	33.1
Pembrokeshire Coast	22.1	22.3	22.4	22.5	22.1
Snowdonia	25.7	26.0	26.3	26.6	26.9

**Table B: Projected population change, National Parks in Wales, selected years up to 2033**

	Percentage change			
	2008-	2008-	2008-	2008-
	2013	2018	2023	2033
Brecon Beacons	0.8	1.4	2.0	1.3
Pembrokeshire Coast	0.7	1.3	1.5	0.0
Snowdonia	0.9	2.1	3.5	4.7

By mid-2033:

Brecon Beacons' population is projected to be 33,100, a 1.3 per cent increase on 2008 (33,700).

Pembrokeshire Coast's population is projected to be 22,100, around the same as at 2008.

Snowdonia's population is projected to be 26,900 a 4.7 per cent increase on 2008 (25,700).