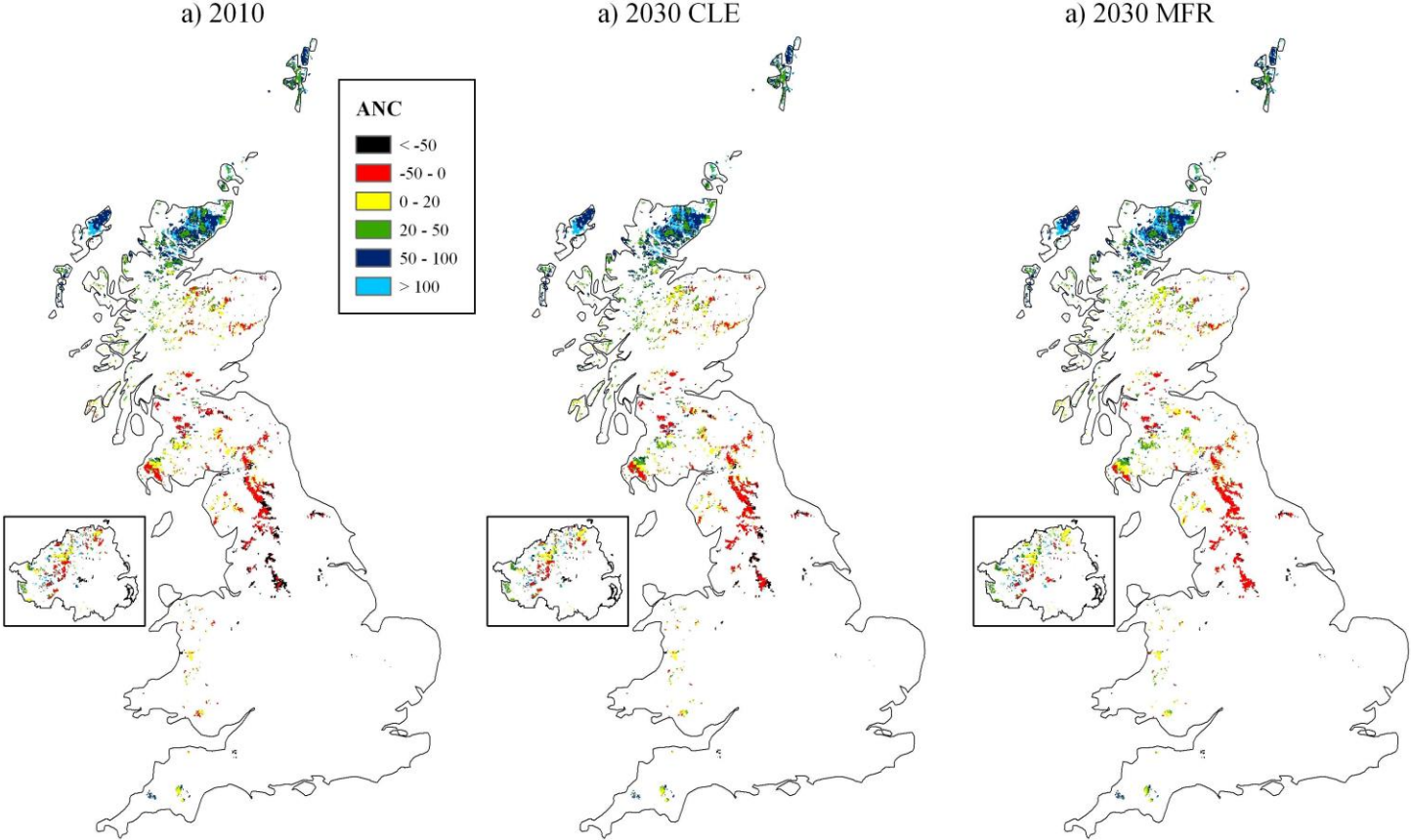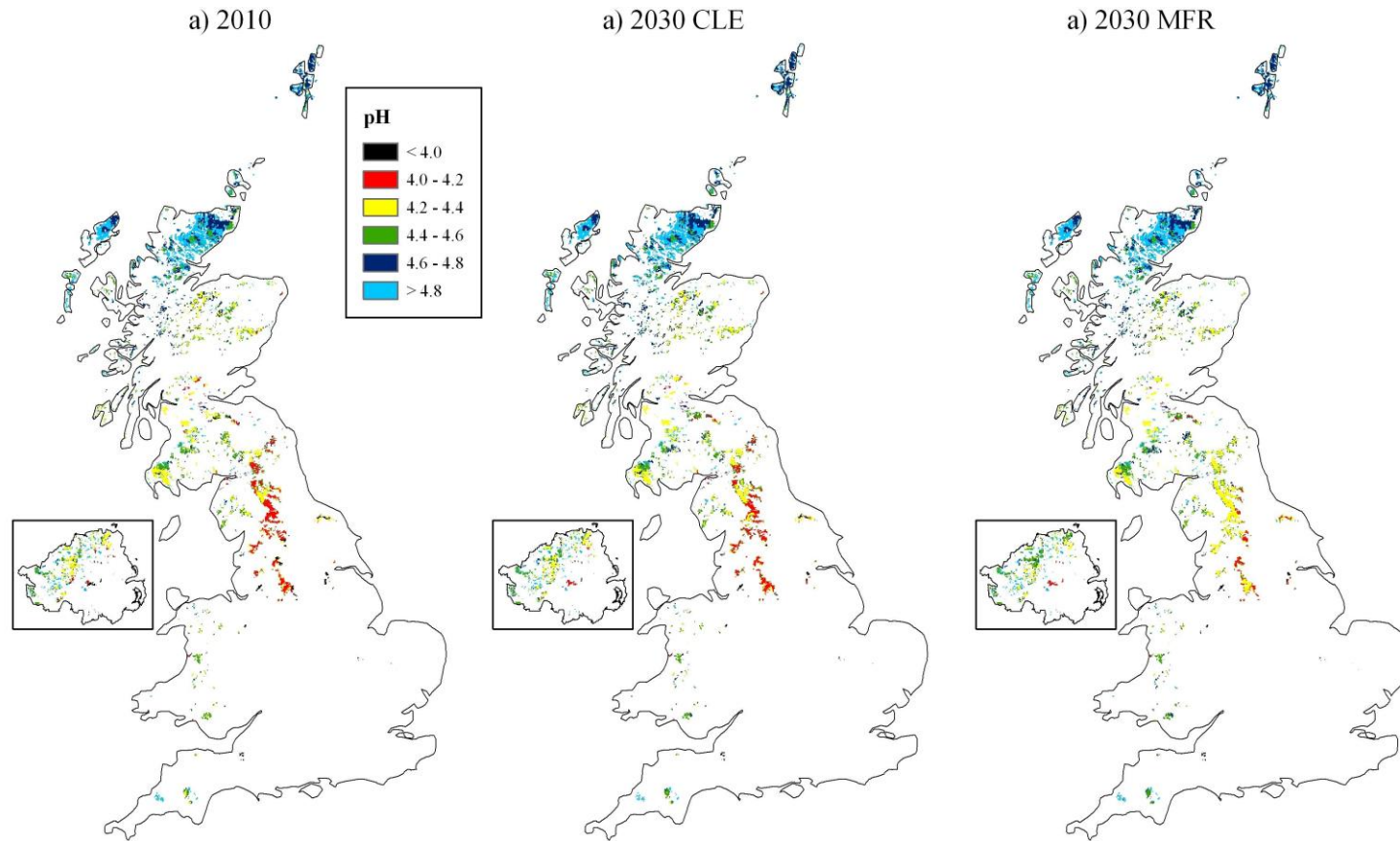# Appendix 4. Dynamic model scenario assessment maps

The following maps show VSD model simulations for seven critical load habitat classes (bog, montane, acid grassland, heathland, managed broadleaf woodland, managed coniferous woodland, unmanaged woodland), and MAGIC model simulations for surface waters. These model outputs form part of the UK submission to the CCE in response to the 2006/07 call for data.

All maps show model forecasts for a) 2010 (current legislation), b) 2030 (current legislation), and c) 2030 (maximum feasible reduction). ANC and NO_3 data are in μeq l^{-1}, pH in pH units.

Figure A4.1 Modelled ANC, Bog

a) 2010

a) 2030 CLE

a) 2030 MFR

ANC

■	< -50
■	-50 - 0
■	0 - 20
■	20 - 50
■	50 - 100
■	> 100

Figure A4.2 Modelled pH, Bog

a) 2010

a) 2030 CLE

a) 2030 MFR

pH

■ < 4.0
■ 4.0 - 4.2
■ 4.2 - 4.4
■ 4.4 - 4.6
■ 4.6 - 4.8
■ > 4.8

Figure A4.3 Modelled leachate NO$_3$ concentrations, Bog

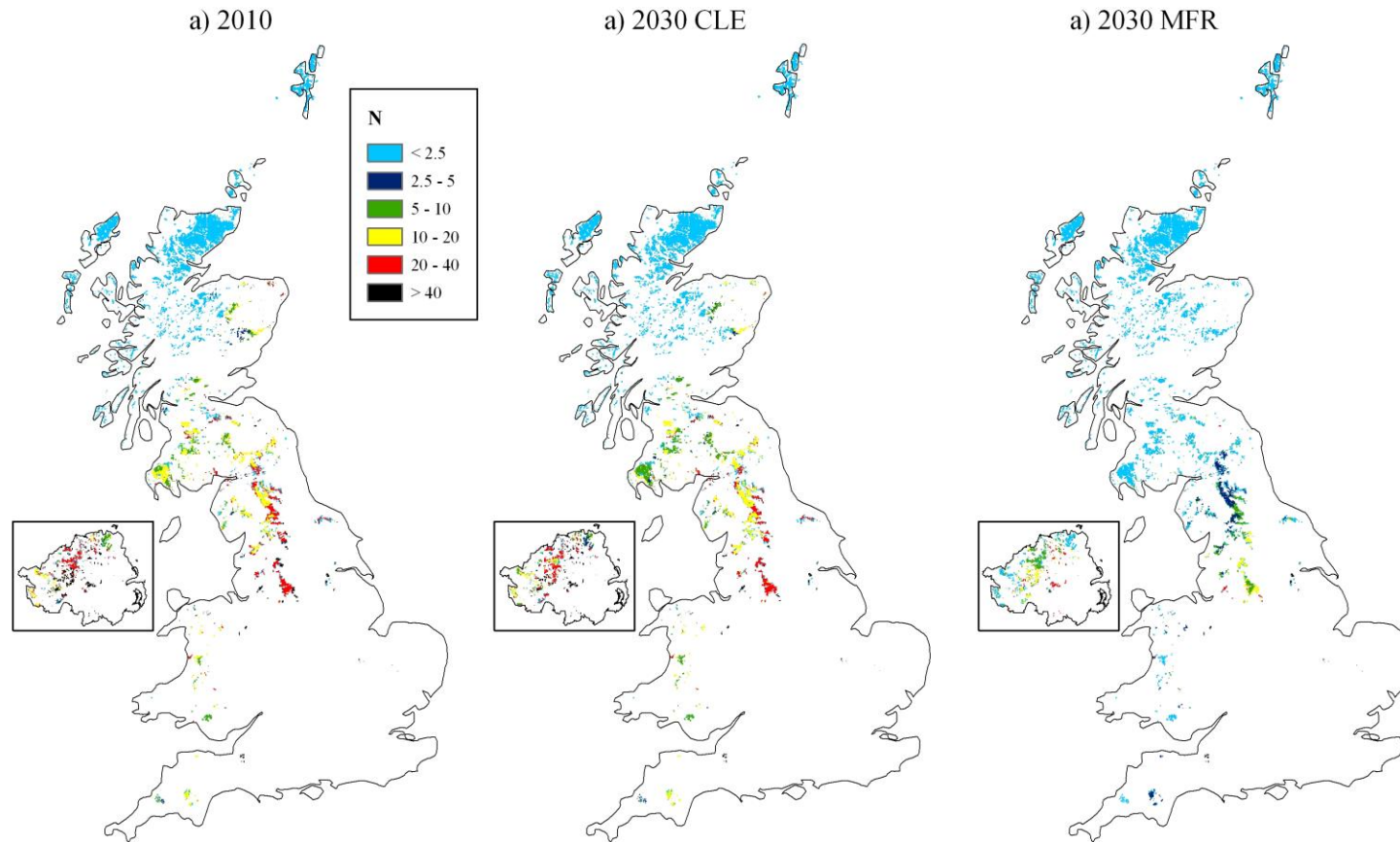a) 2010

a) 2030 CLE

a) 2030 MFR

N

< 2.5

2.5 - 5

5 - 10

10 - 20

20 - 40

> 40

Figure A4.4 Modelled ANC, Montane

a) 2010

a) 2030 CLE

a) 2030 MFR

ANC
■	< -50
■	-50 - 0
■	0 - 20
■	20 - 50
■	50 - 100
■	> 100
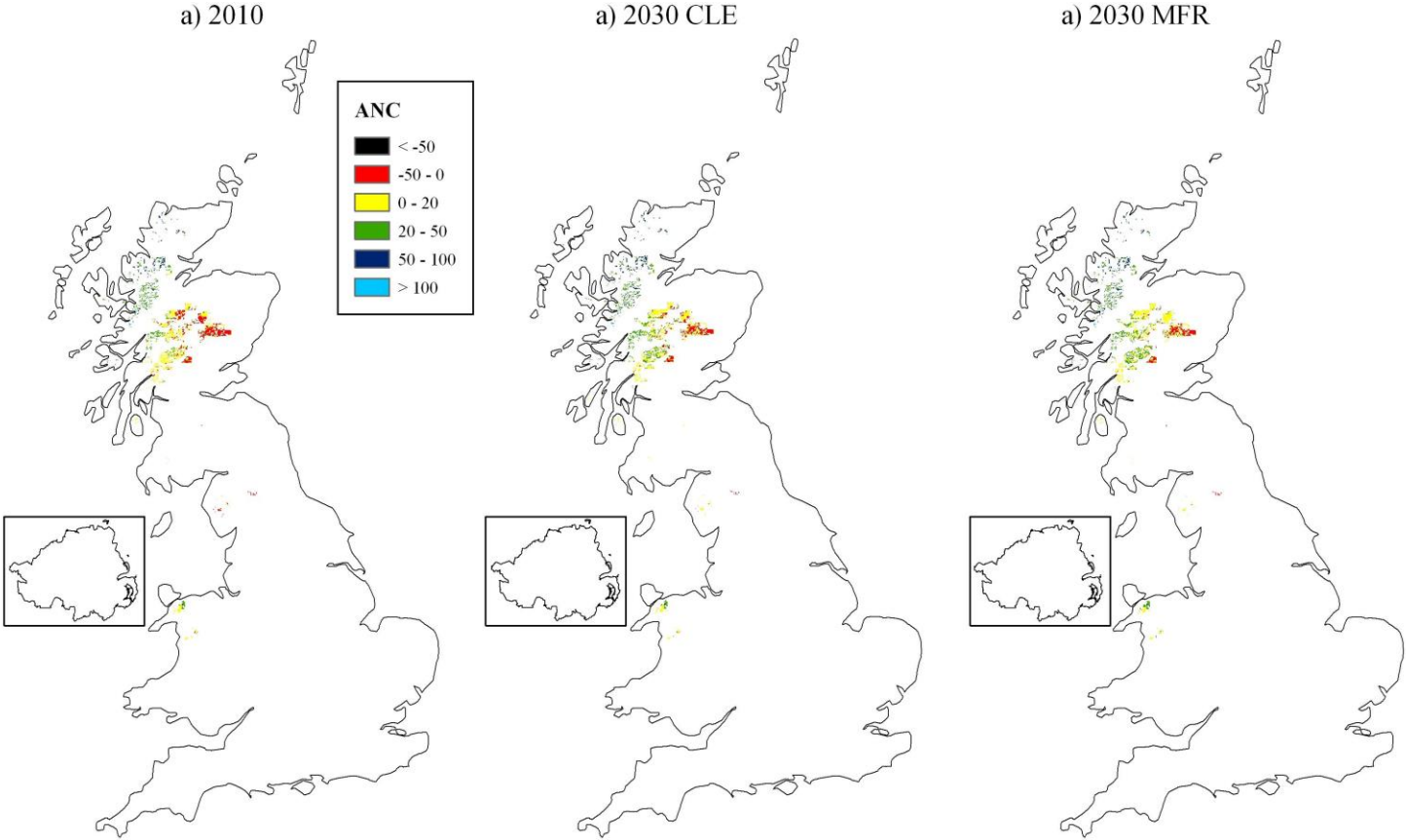
Figure A4.5 Modelled pH, Montane

a) 2010　　　　　　　　　a) 2030 CLE　　　　　　　　　a) 2030 MFR

pH
- < 4.0
- 4.0 - 4.2
- 4.2 - 4.4
- 4.4 - 4.6
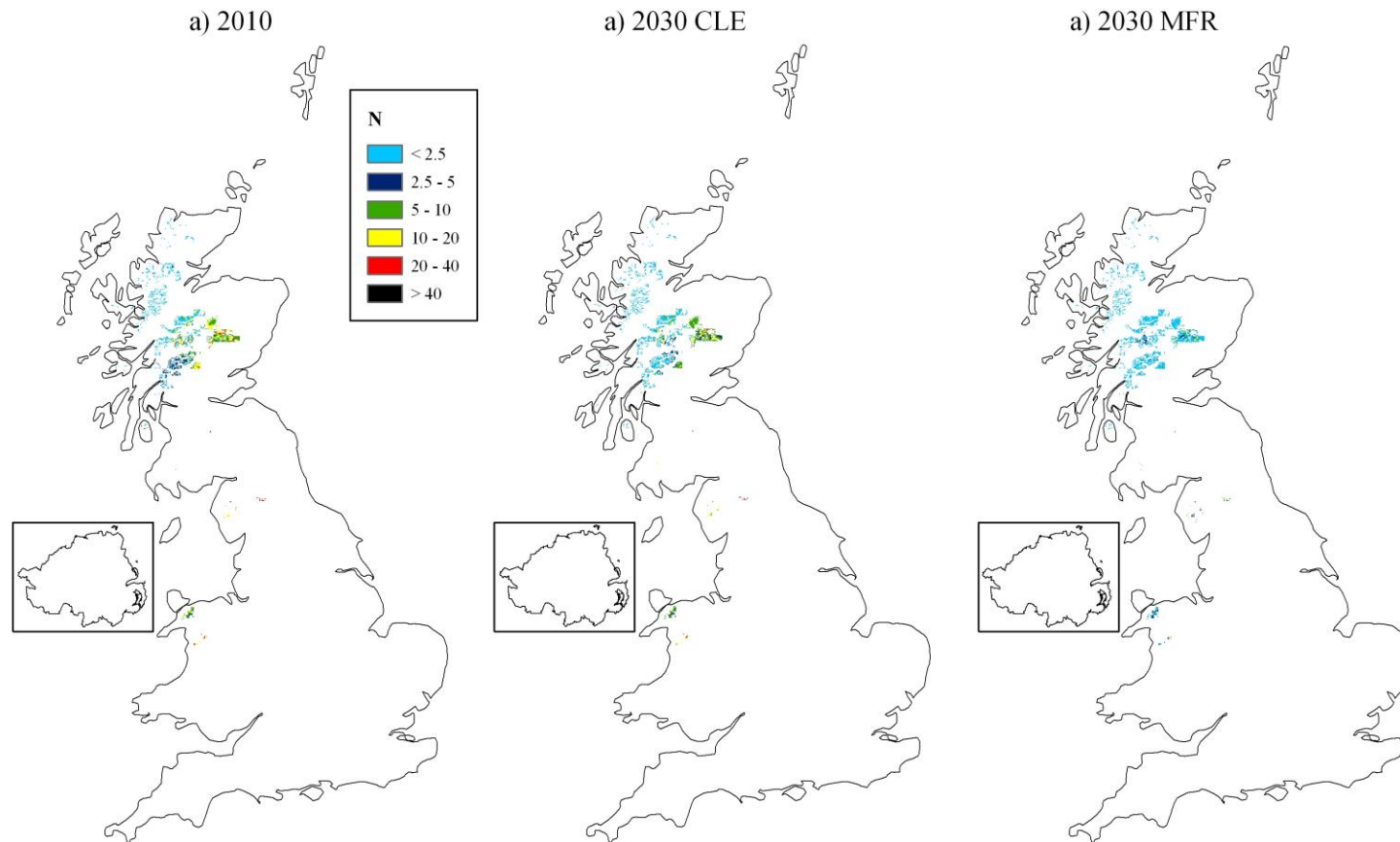- 4.6 - 4.8
- > 4.8
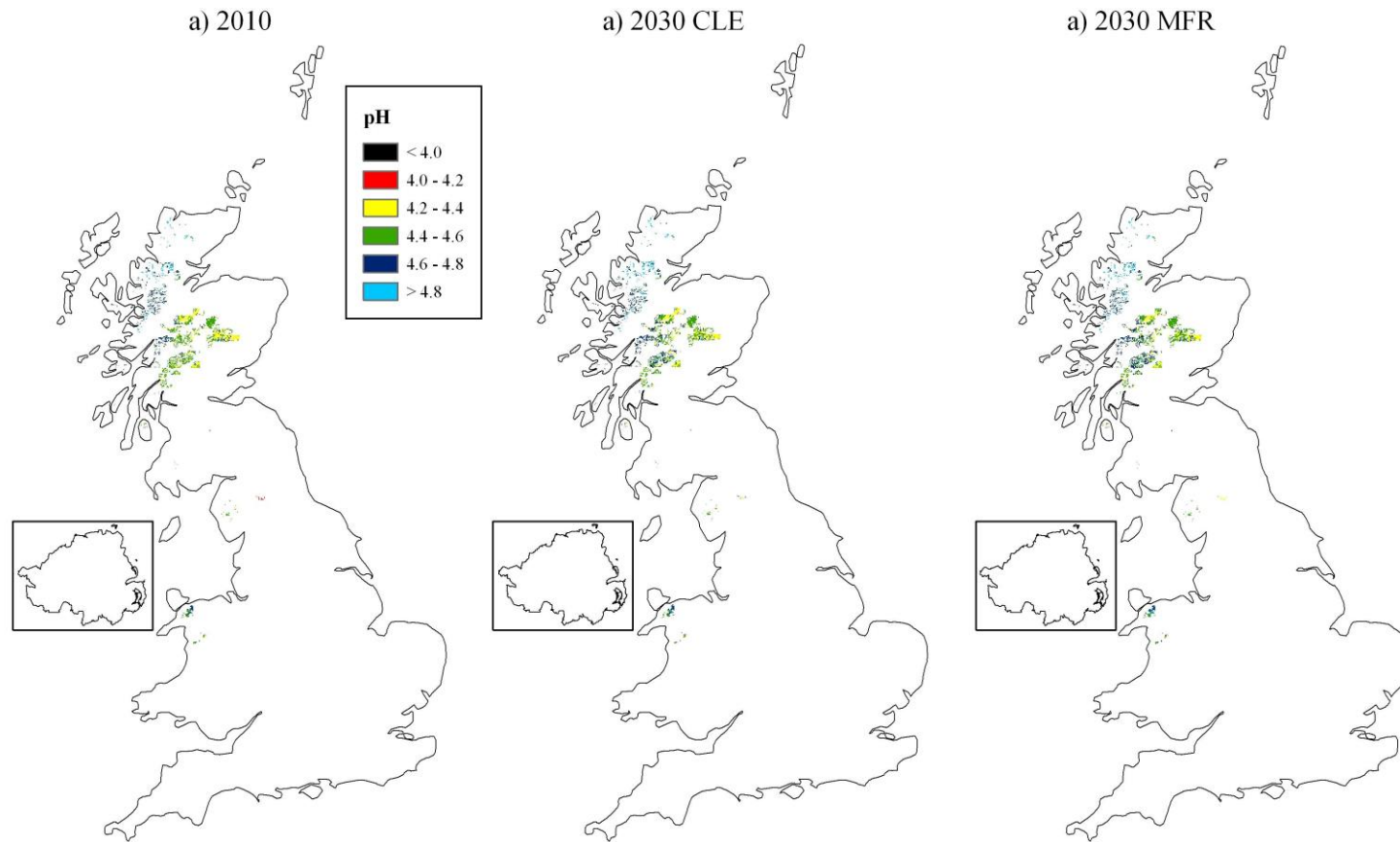
Figure A4.6 Modelled leachate NO$_3$ concentrations, Montane

a) 2010   a) 2030 CLE   a) 2030 MFR

N
< 2.5
2.5 - 5
5 - 10
10 - 20
20 - 40
> 40

Figure A4.7 Modelled ANC, Acid grassland

a) 2010

a) 2030 CLE

a) 2030 MFR

ANC

■	< -50
■	-50 - 0
■	0 - 20
■	20 - 50
■	50 - 100
■	> 100
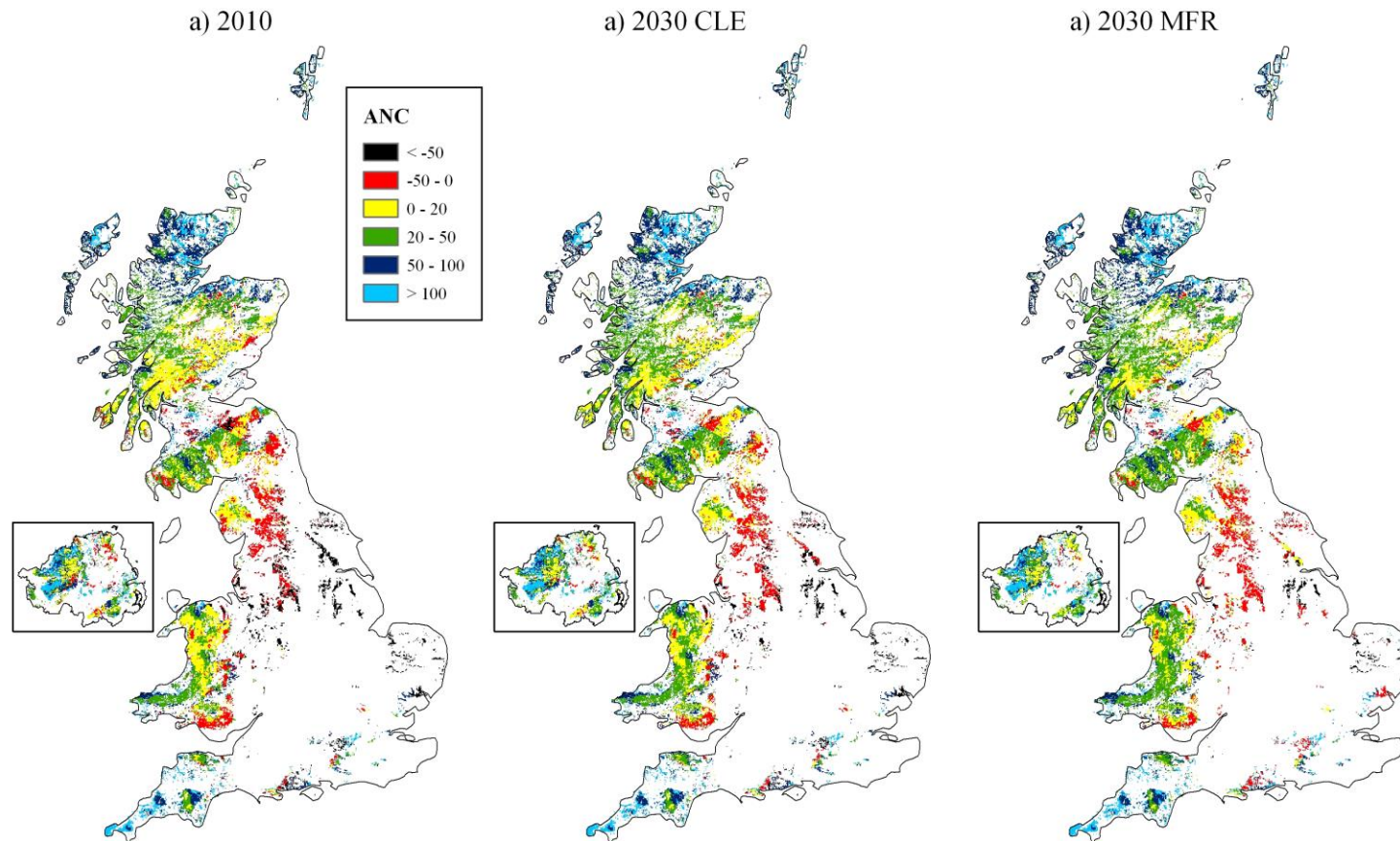
Figure A4.8 Modelled pH, Acid grassland

a) 2010

a) 2030 CLE

a) 2030 MFR

pH
- ■ < 4.0
- ■ 4.0 - 4.2
- ■ 4.2 - 4.4
- ■ 4.4 - 4.6
- ■ 4.6 - 4.8
- ■ > 4.8
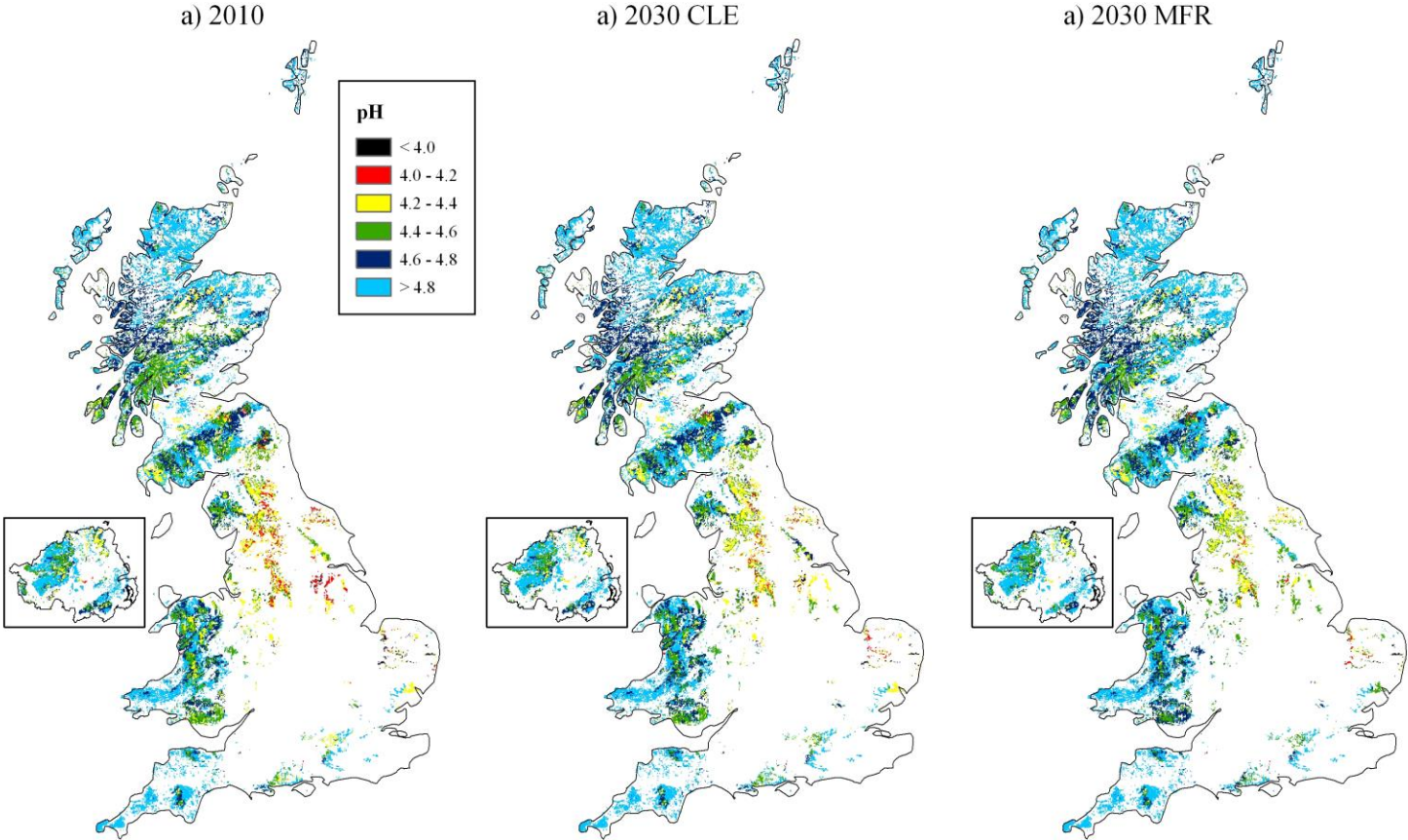
Figure A4.9 Modelled leachate NO₃ concentration, Acid grassland

a) 2010

a) 2030 CLE

a) 2030 MFR

N
- < 2.5
- 2.5 - 5
- 5 - 10
- 10 - 20
- 20 - 40
- > 40
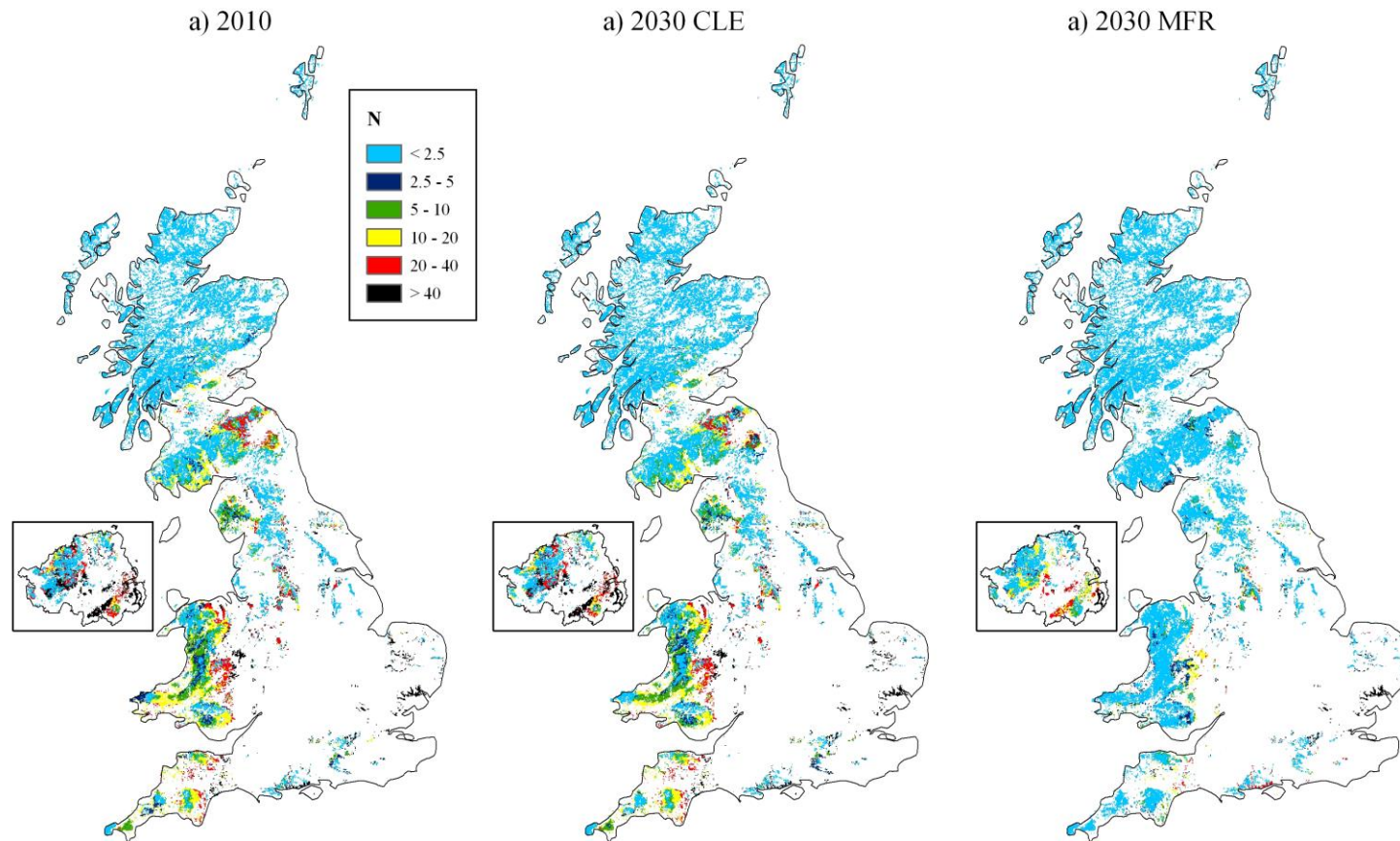
Figure A4.10 Modelled ANC, Heathland

a) 2010

a) 2030 CLE

a) 2030 MFR

ANC

- < -50
- -50 - 0
- 0 - 20
- 20 - 50
- 50 - 100
- > 100
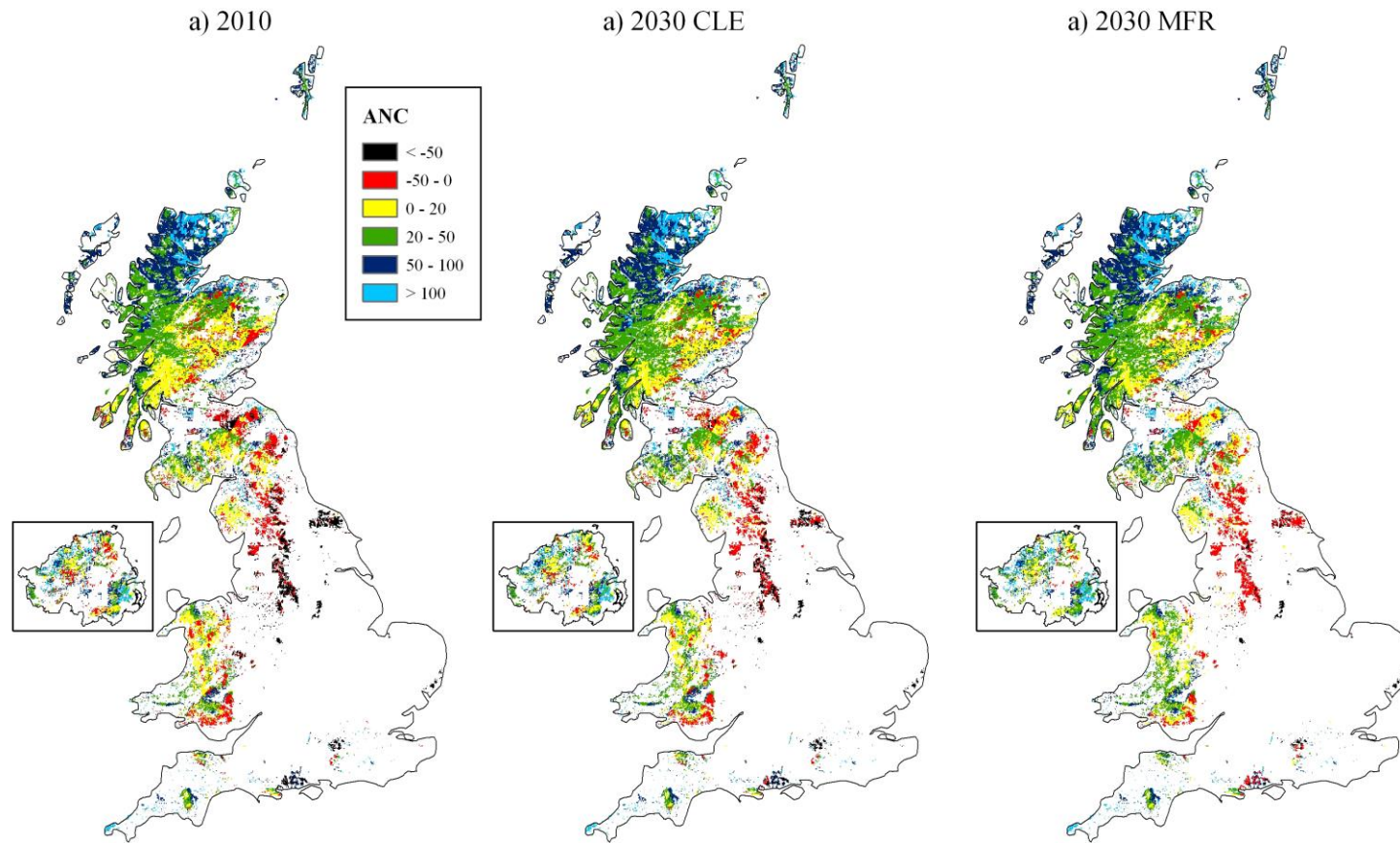
Figure A4.11 Modelled pH, Heathland

a) 2010

a) 2030 CLE

a) 2030 MFR

pH
- ■ < 4.0
- ■ 4.0 - 4.2
- ■ 4.2 - 4.4
- ■ 4.4 - 4.6
- ■ 4.6 - 4.8
- ■ > 4.8
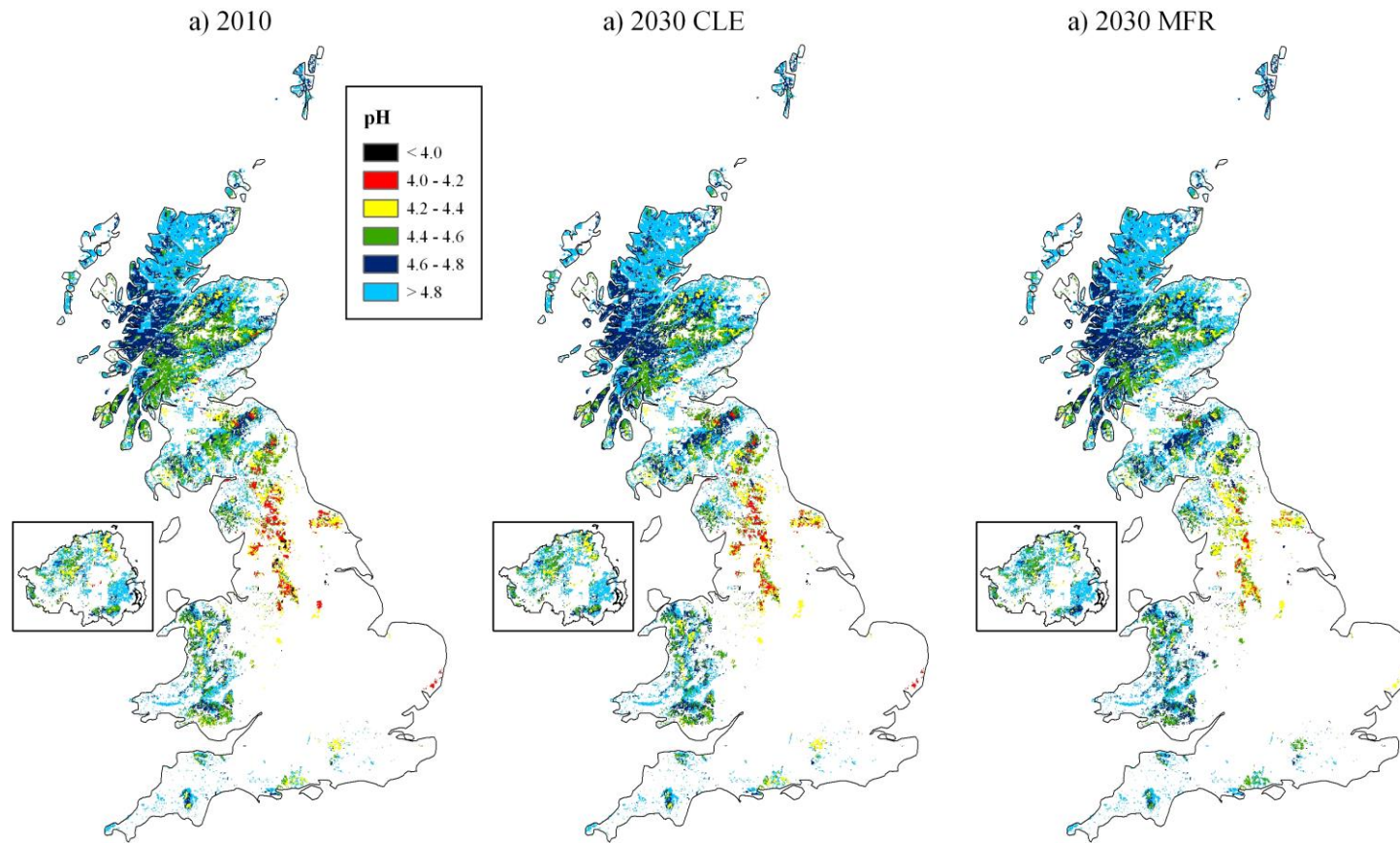
Figure A4.12 Modelled leachate NO₃ concentration, Heathland

a) 2010

a) 2030 CLE

a) 2030 MFR

N

< 2.5
2.5 - 5
5 - 10
10 - 20
20 - 40
> 40
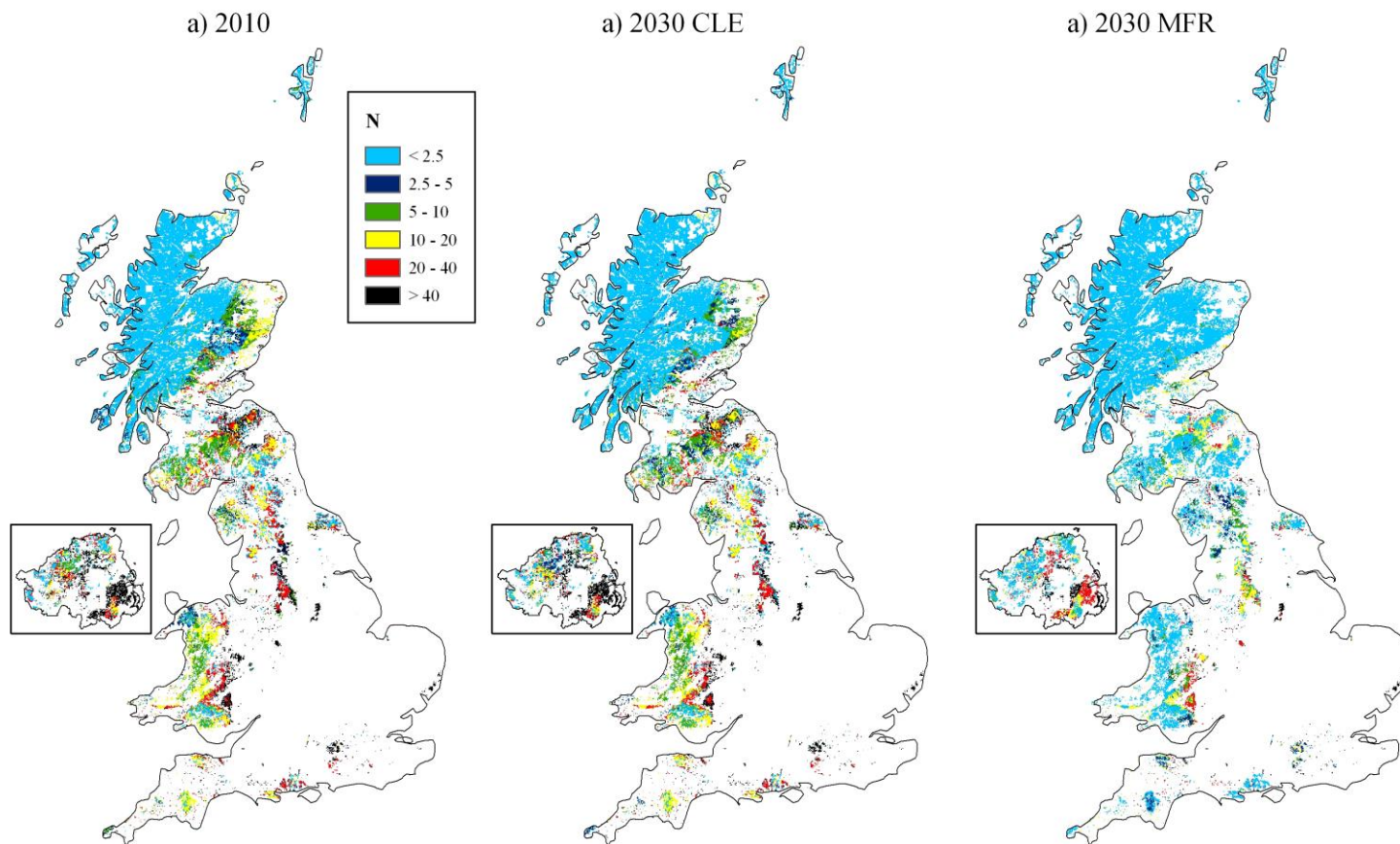
Figure A4.13 Modelled ANC, Managed broadleaf woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

ANC

■	< -50
■	-50 - 0
■	0 - 20
■	20 - 50
■	50 - 100
■	> 100
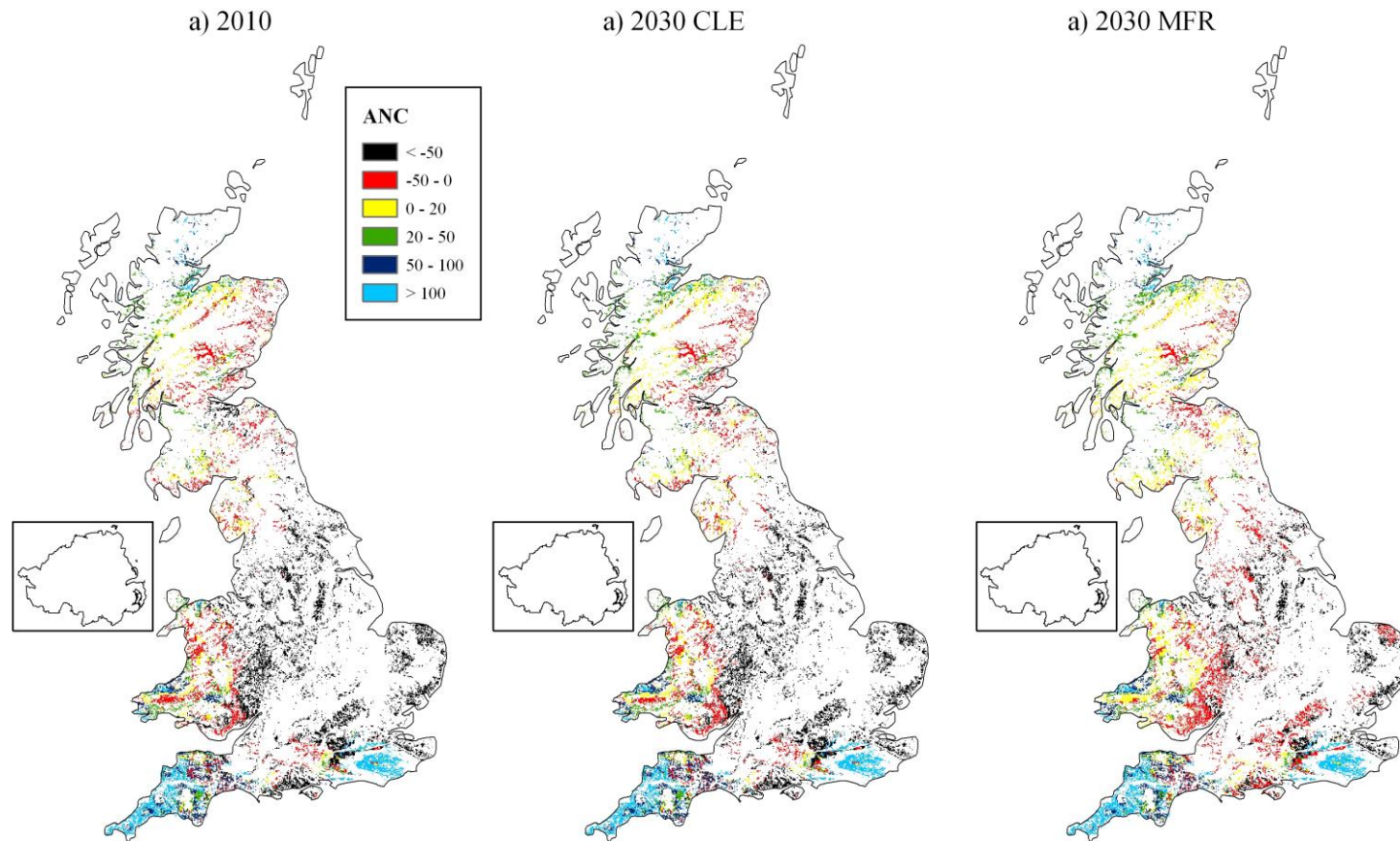
Figure A4.14 Modelled pH, Managed broadleaf woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

pH

⬛	< 4.0
🟥	4.0 - 4.2
🟨	4.2 - 4.4
🟩	4.4 - 4.6
🟦	4.6 - 4.8
🟦	> 4.8
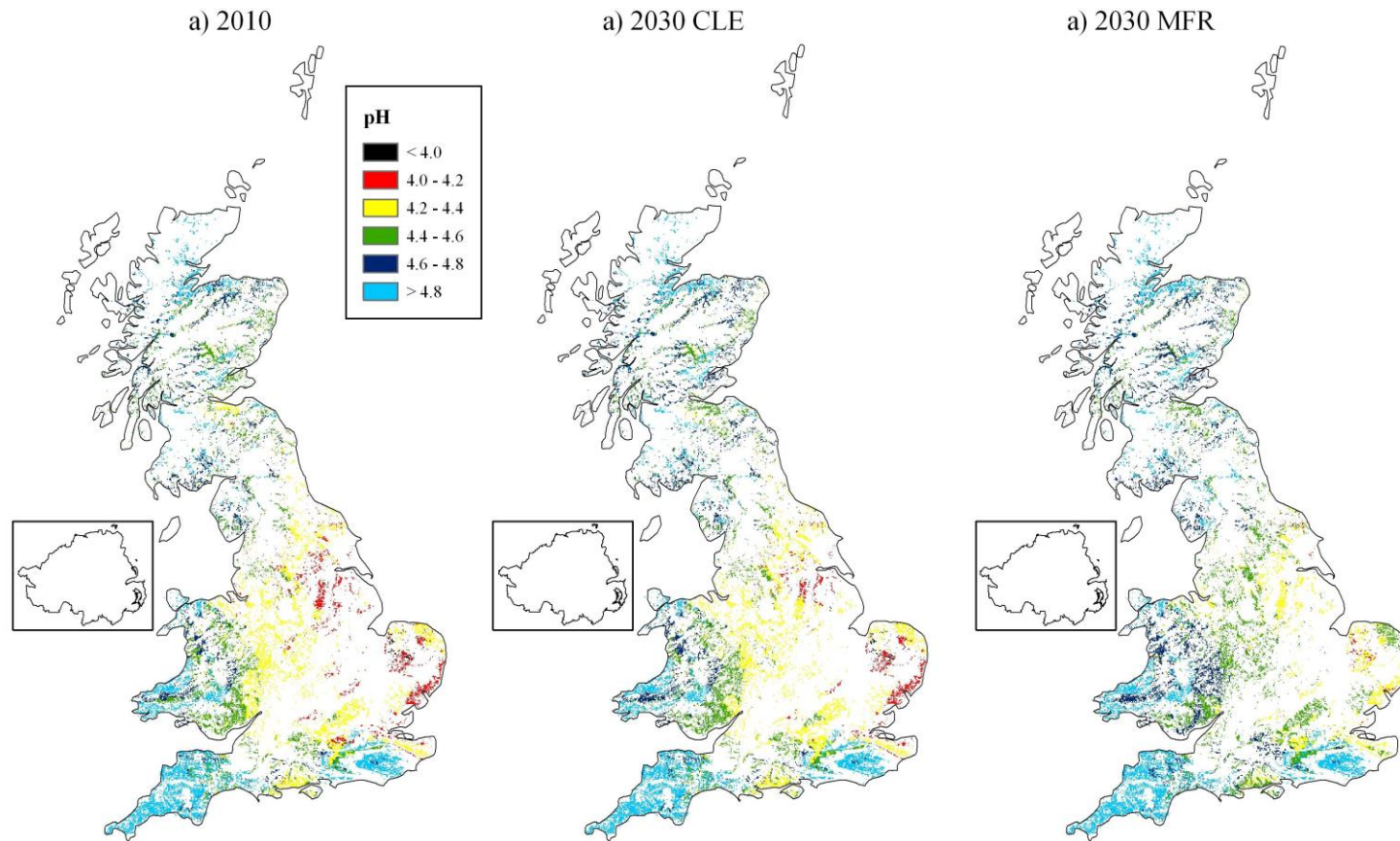
Figure A4.15 Modelled leachate NO$_3$ concentration, Managed broadleaf woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

N

< 2.5
2.5 - 5
5 - 10
10 - 20
20 - 40
> 40
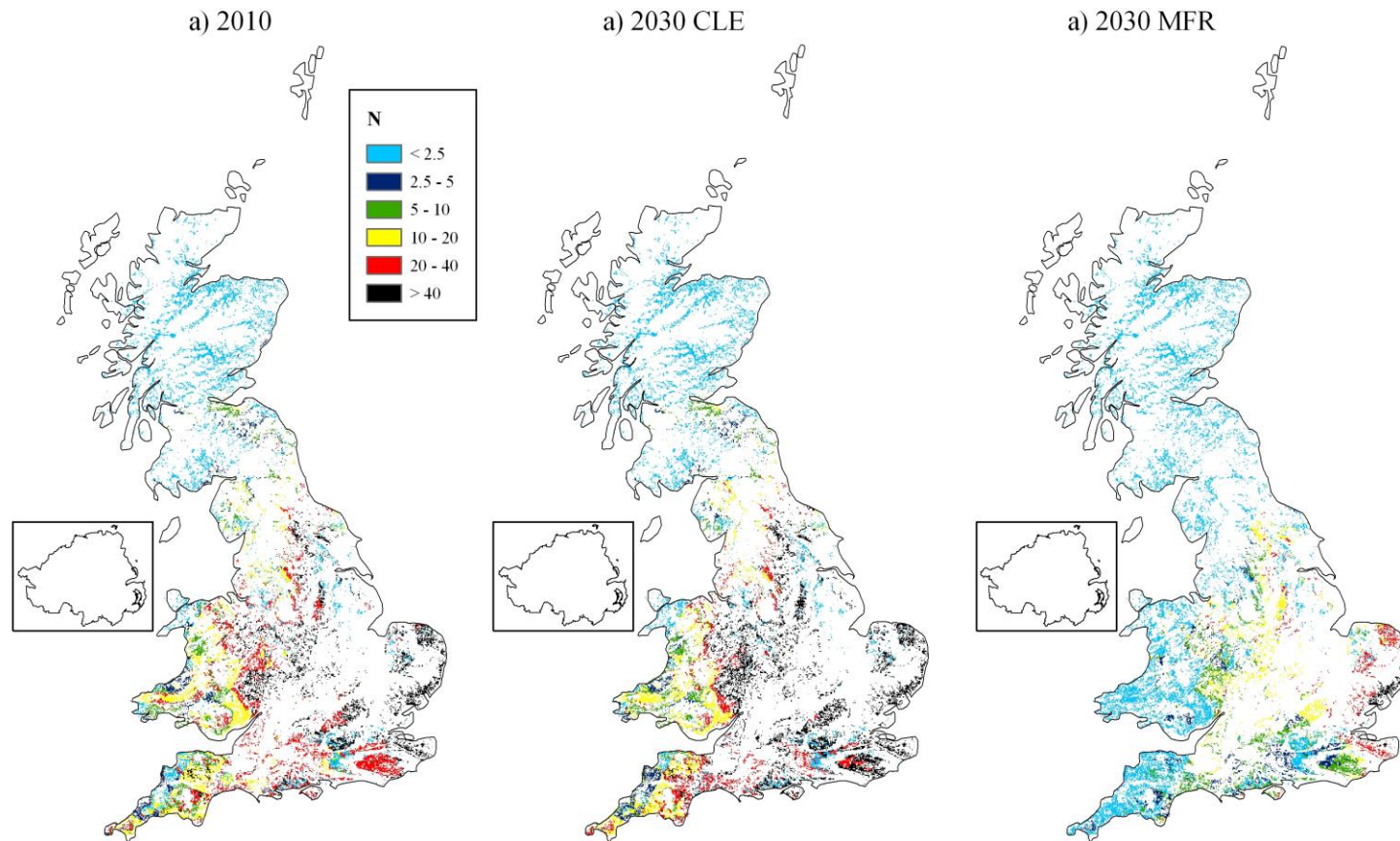
Figure A4.16 Modelled ANC, Managed coniferous woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

ANC

⬛	< -50
🟥	-50 - 0
🟨	0 - 20
🟩	20 - 50
🟦	50 - 100
🟦	> 100
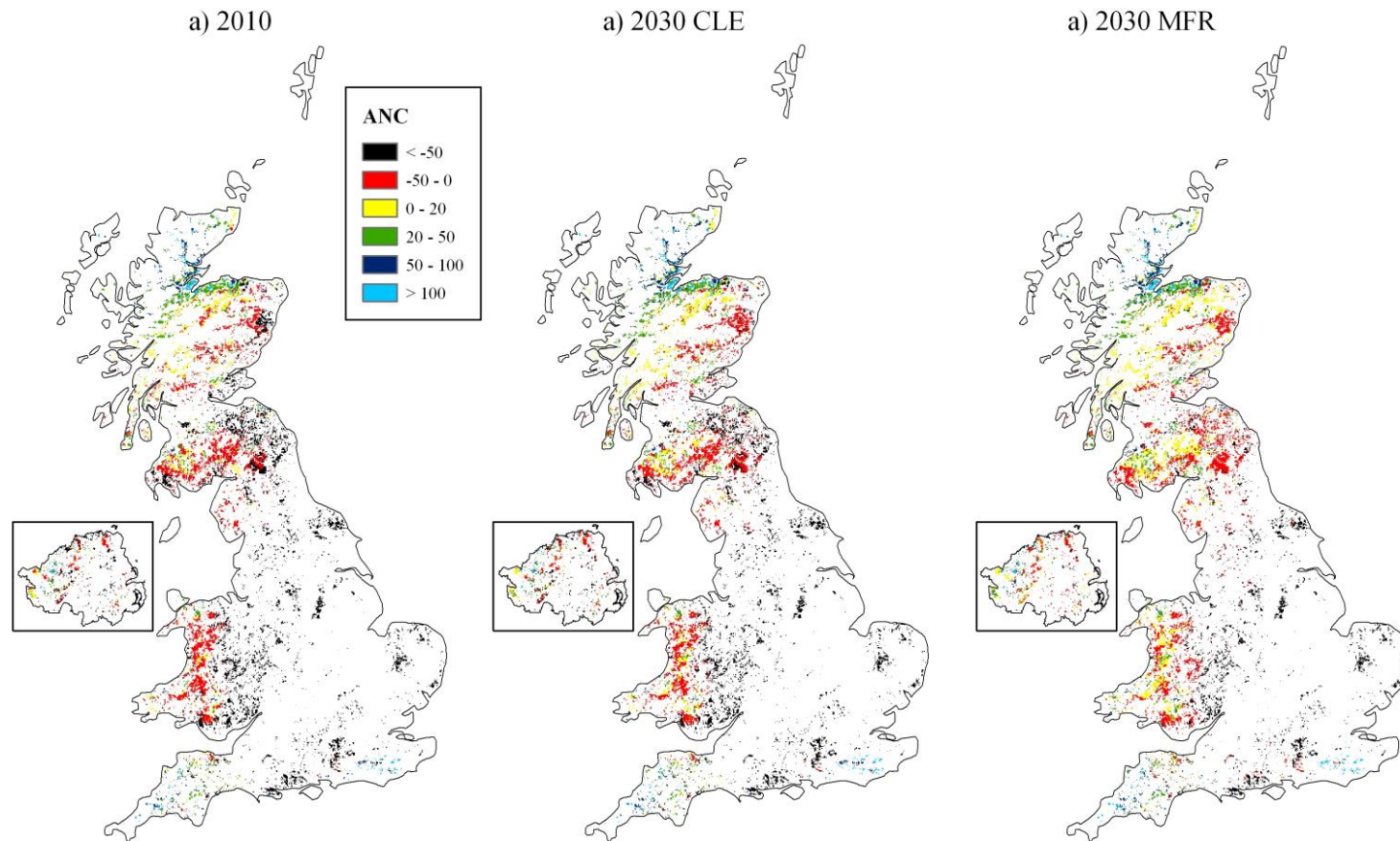
Figure A4.17 Modelled pH, Managed coniferous woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

pH

< 4.0
4.0 - 4.2
4.2 - 4.4
4.4 - 4.6
4.6 - 4.8
> 4.8
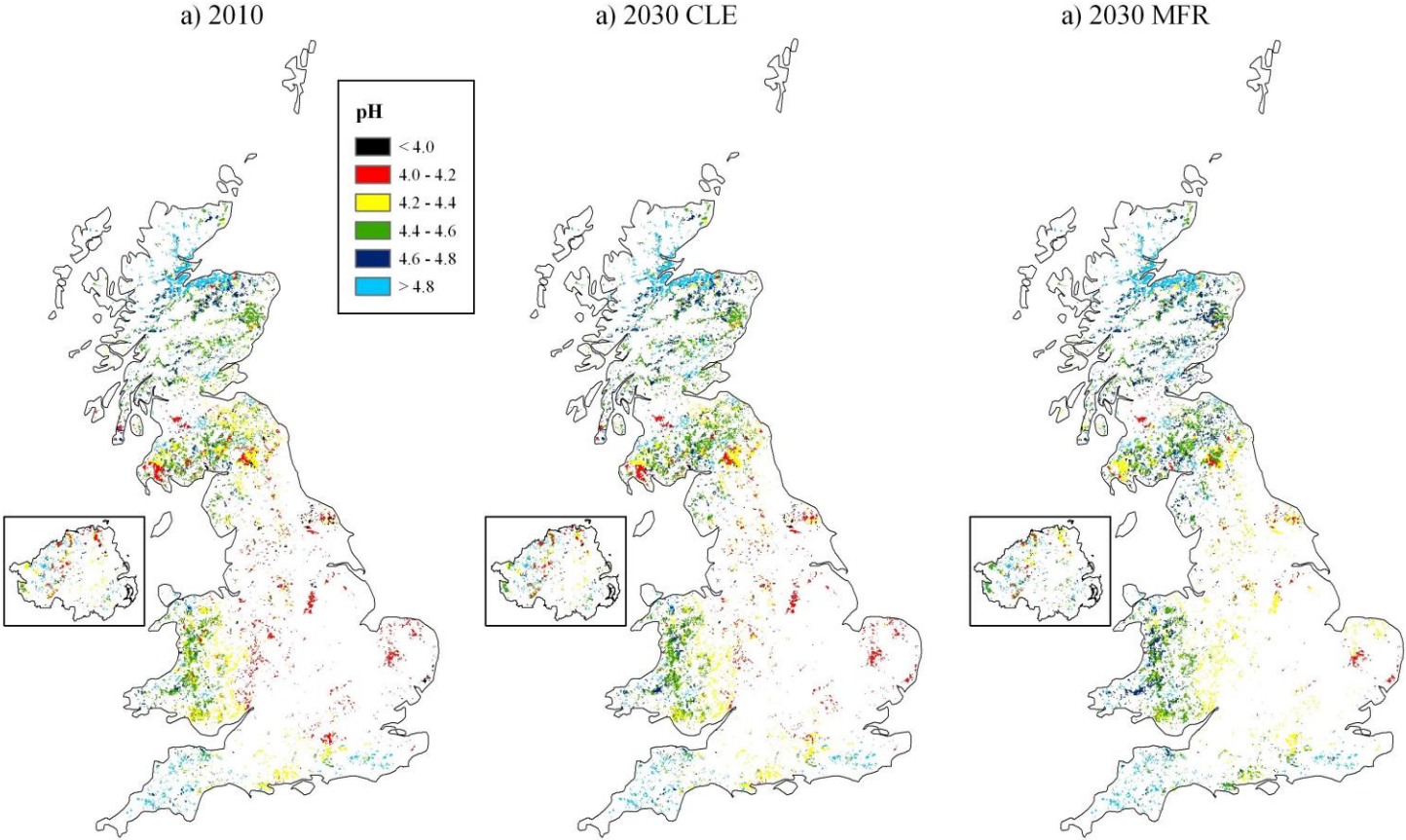
Figure A4.18 Modelled leachate NO$_3$ concentration, Managed coniferous woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

N
< 2.5
2.5 - 5
5 - 10
10 - 20
20 - 40
> 40
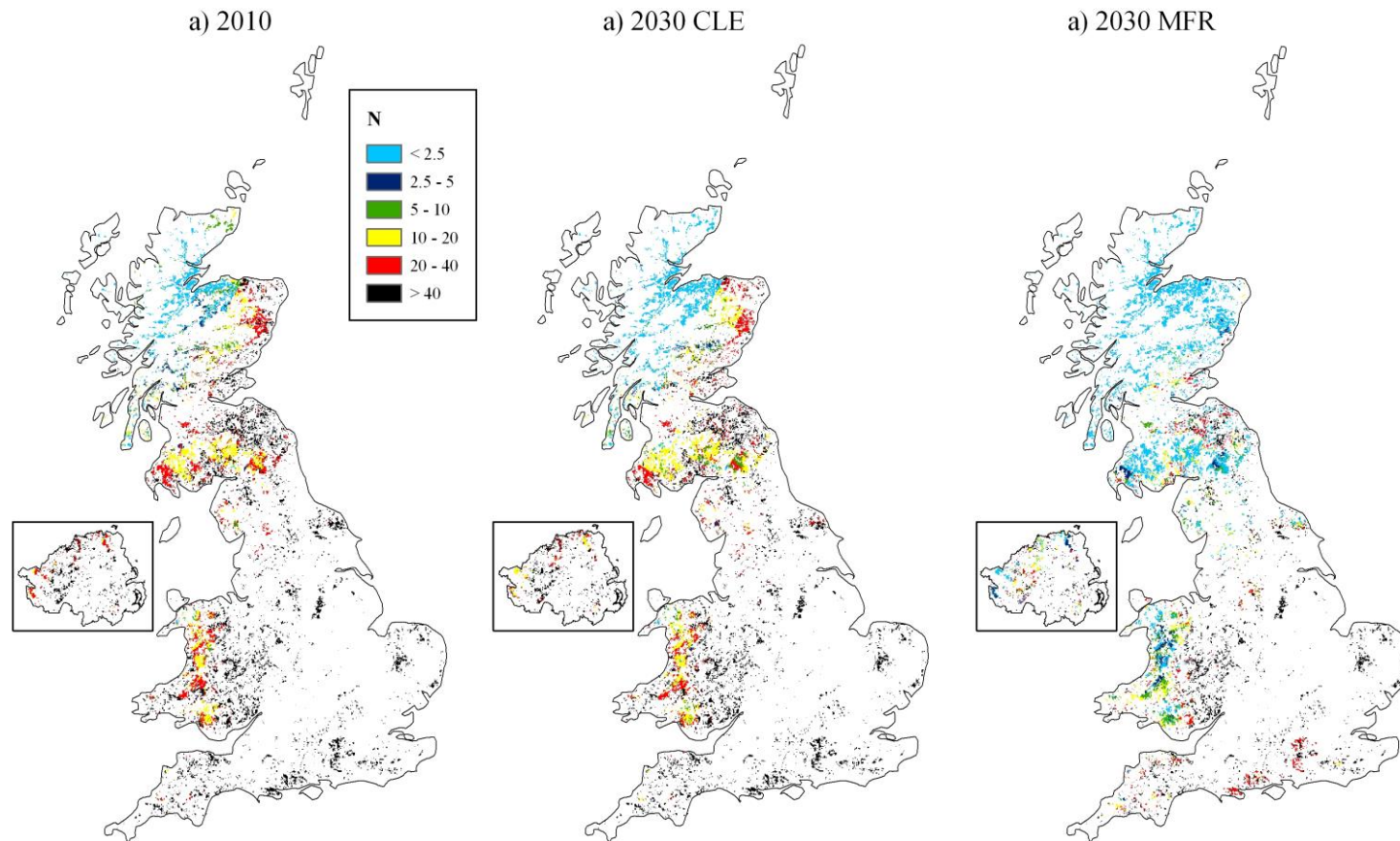
Figure A4.19 Modelled ANC, Unmanaged woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

ANC

■	< -50
■	-50 - 0
■	0 - 20
■	20 - 50
■	50 - 100
■	> 100
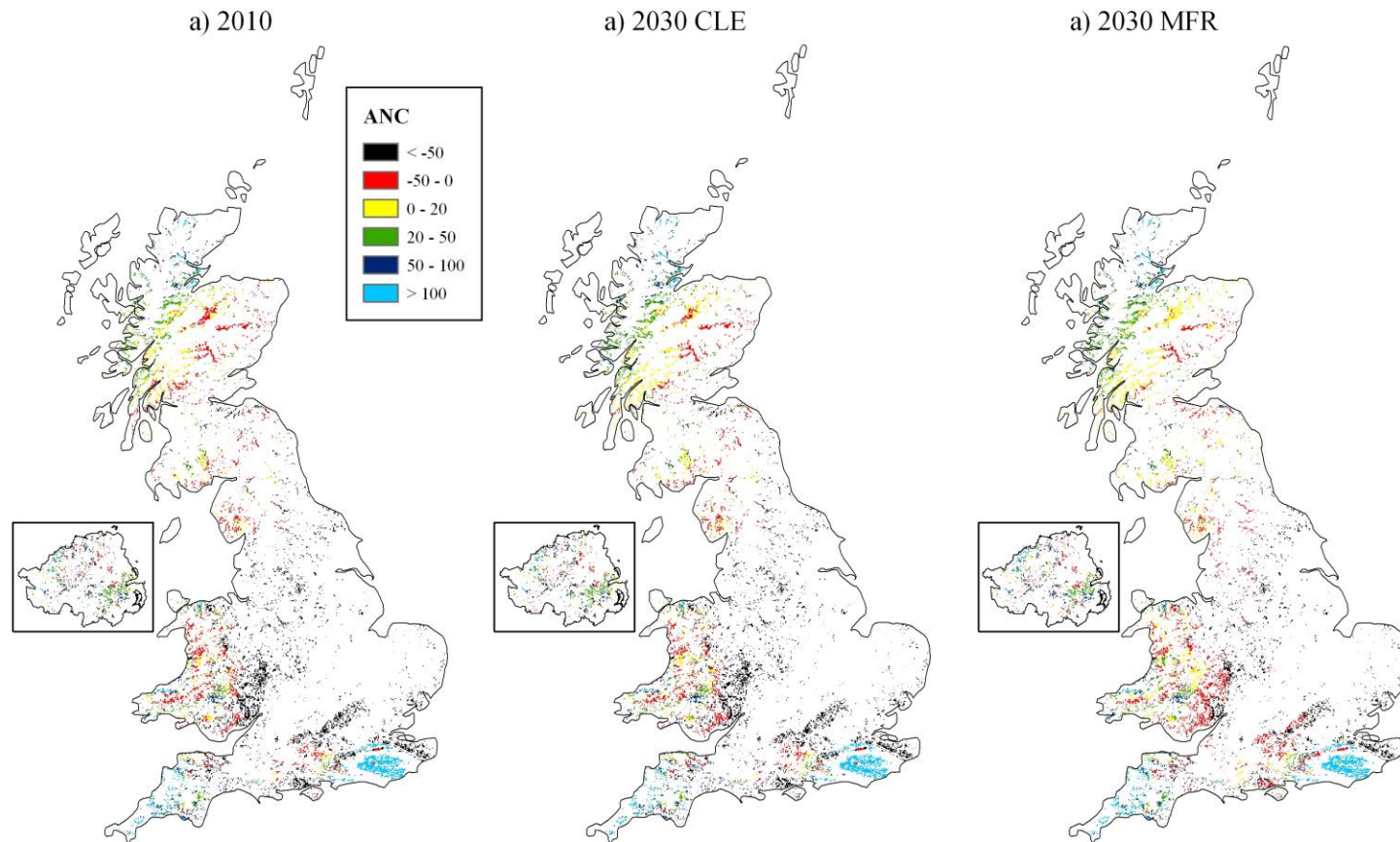
Figure A4.20 Modelled pH, Unmanaged woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

pH

■	< 4.0
■	4.0 - 4.2
■	4.2 - 4.4
■	4.4 - 4.6
■	4.6 - 4.8
■	> 4.8
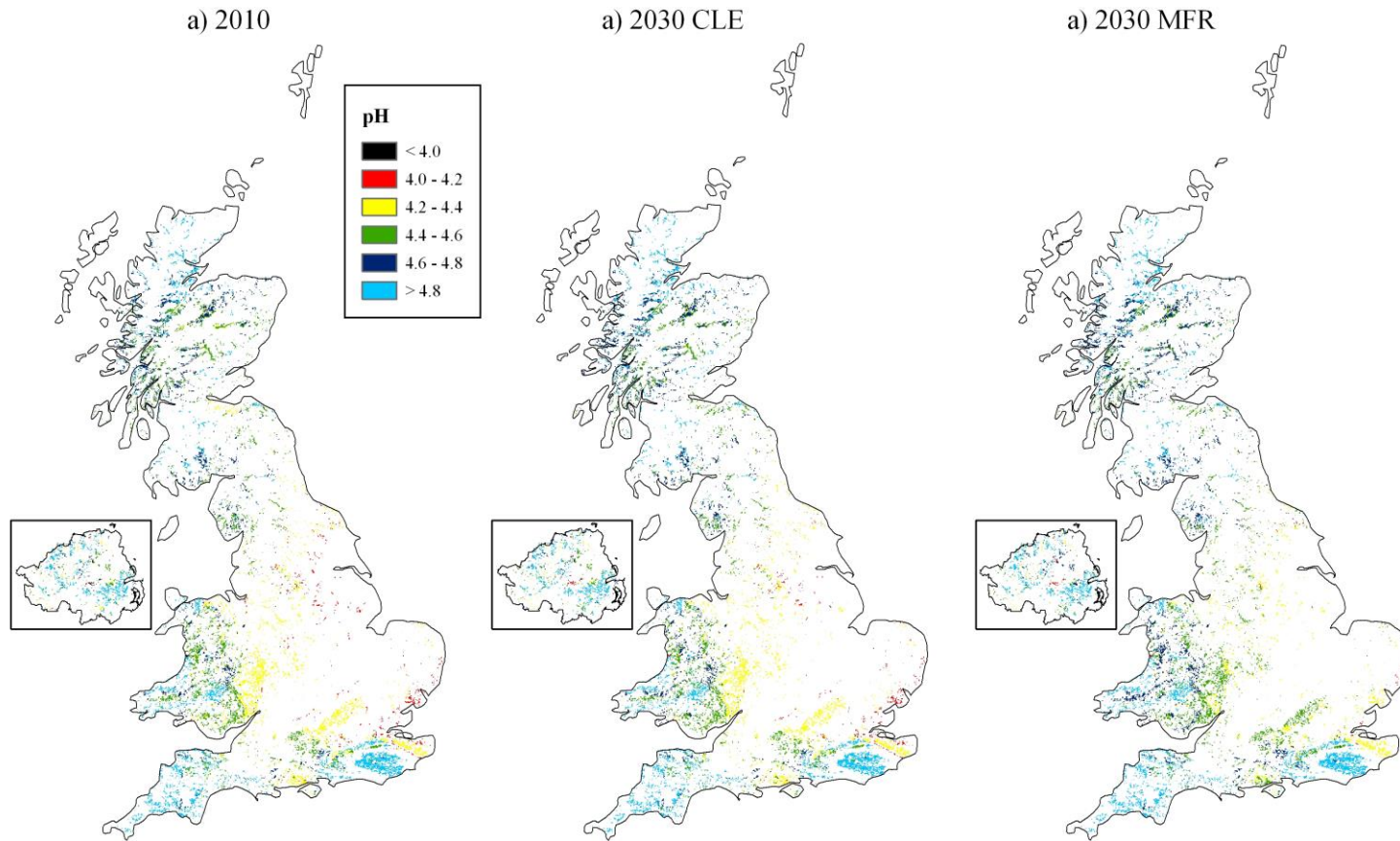
Figure A4.21 Modelled leachate NO₃ concentration, Unmanaged woodland

a) 2010

a) 2030 CLE

a) 2030 MFR

N

< 2.5
2.5 - 5
5 - 10
10 - 20
20 - 40
> 40
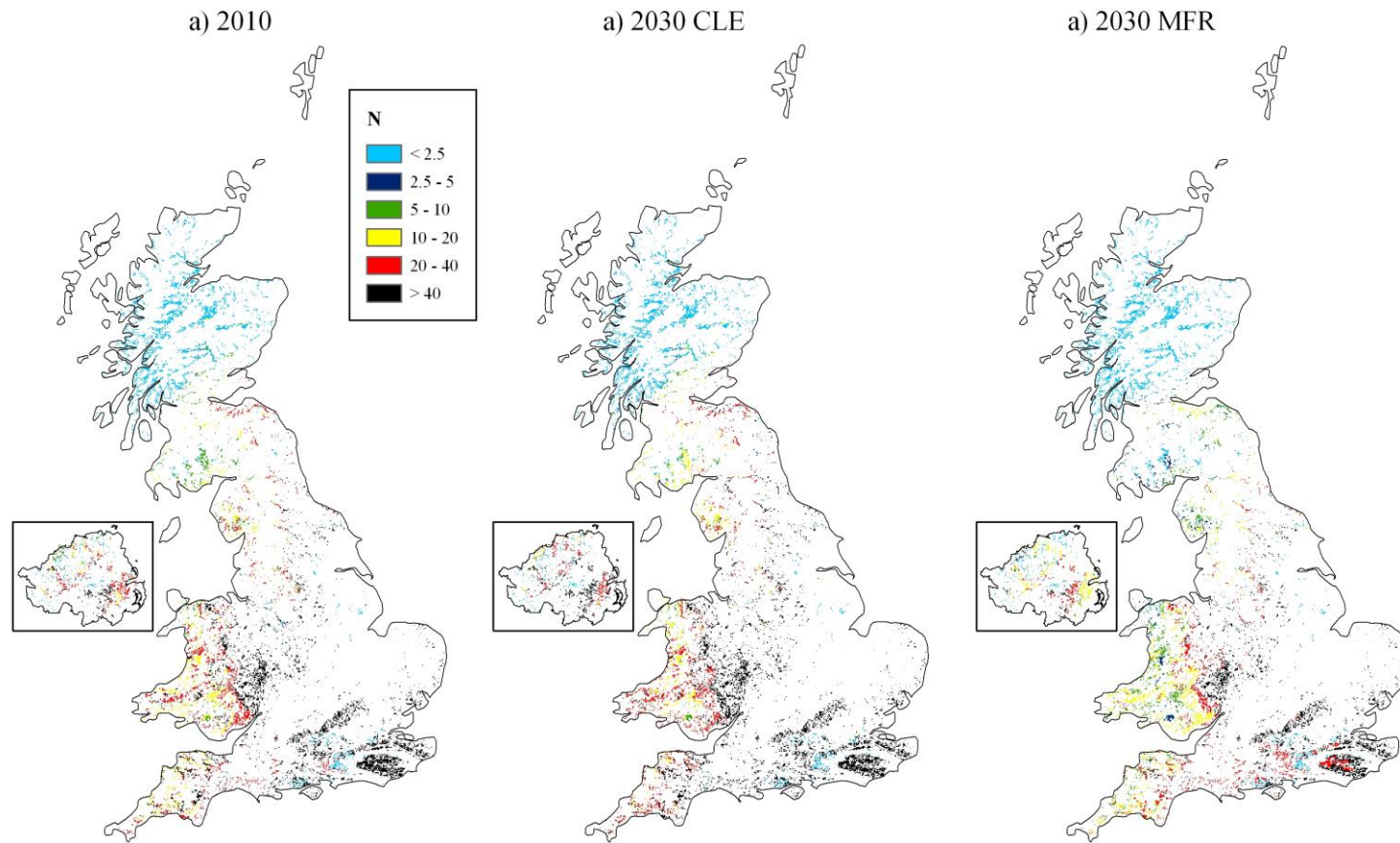
Figure A4.22 Modelled ANC, Surface Waters

a) 2000

a) 2050 CLE

a) 2050 MFR

ANC

■	< -50
■	-50 - 0
■	0 - 20
■	20 - 50
■	50 - 100
■	> 100
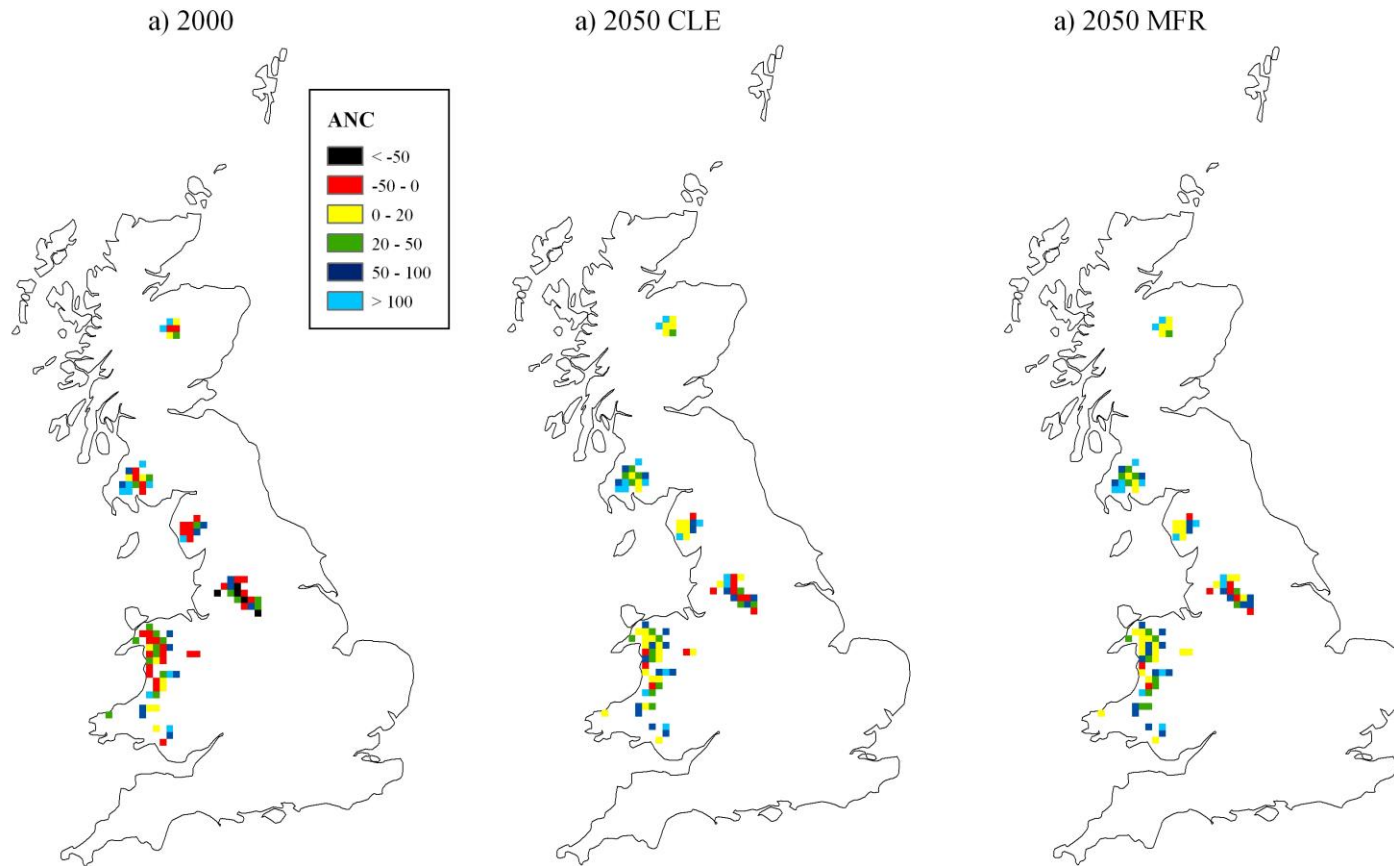
Figure A4.23 Modelled NO₃ concentration, Surface Waters

a) 2000

a) 2050 CLE

a) 2050 MFR

N

< 2.5

2.5 - 5

5 - 10

10 - 20

20 - 40

> 40