Adaptation – integrating climate change into peatlands action.

Dr Olly Watts – Senior Climate Change Policy Officer.
In the next ten minutes...

• How serious is climate change?
• How does this help peatland conservation?
• A few thoughts about adaptation
What we are already living with: climate trends in Scotland since 1961

- 27 fewer days of frost
- 32 fewer days of snow cover
- 33 day long growing season
- 1°C rise in temperature
- 21% more rain
- Sea-level rising 3mm per year (and speeding up)

Average annual change observed in Scotland since 1961 (Scotland’s Climate Trends Handbook, Sniffer 2014).

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Temperatures continue to rise

Each of the past 3 decades has been successively warmer than the preceding decades since 1850

Approx 1.1 °C average global temperature rise since late 19th century
Won’t Paris solve the climate problem?

New 1.5°C target
Two Celsius around 2040, within 25 years
UKCP09 uplands 2°C climate projections

• Temperature
  – Summer average 1°C to 3°C warmer
  – Summer maximum up to 5°C warmer
  – Winter average 1°C to 2°C warmer

• Precipitation
  – Summers 40% drier to 30% wetter
  – Wetter winters: by up to 40%

• More extreme / unseasonal weather – droughts, hot spells, heavy rain
Lit review & case studies

– Shifting ranges
– New arrivals
– Populations and communities
– Interaction between species
– Extreme weather
– Protected areas
– Managing sites
– People
So what does this mean for looking after our peatlands?
Peatlands are our major carbon store.
Loss of peatland soils must end

• Some great initiatives – especially uplands
• Lowland raised bogs also
• Agricultural soils – the next challenge
Peatlands hold water

• Slow flooding
• Improve quality
Wetlands resist wildfires
Large areas of nature friendly land needed to help wildlife shift range

- Europe’s breeding birds need to shift range by 550 kms north-east to stay within favourable climate conditions for 3 C world
Adaptation for ecosystem services

• Maintain, enhance, develop current
• What other nature based adaptation benefits can peatlands provide?
• Climate vulnerable ecosystem services?
Climate change influences everything with implications for our interests
Adaptation at three scales

• Specific needs for local biodiversity and situation

• Wider perspective to include neighbouring areas

• Strategic / network regional / country overview
Don’t take impacts and adaptation for granted!
Urgency to get on with this now

• Carbon storage not release
• Develop robust, functioning habitats before climate change makes this more difficult
Peat Bogs, Climate and Climate Change