



# Increasing resilience in Scotland's planted forests

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# **Climate Change in Scotland**

## Climate variable

### Gradual Changes

- Increasing temperature
- Changing rainfall patterns

## Extreme Events

- Flooding
- Drought
- Storms/wind

### **Impact on Forestry**

- Increased stress & vulnerability
- Drought (East Scotland)
- Wind Damage
- Landslides
- Fire
- Novel combinations of pests, pathogens & hosts



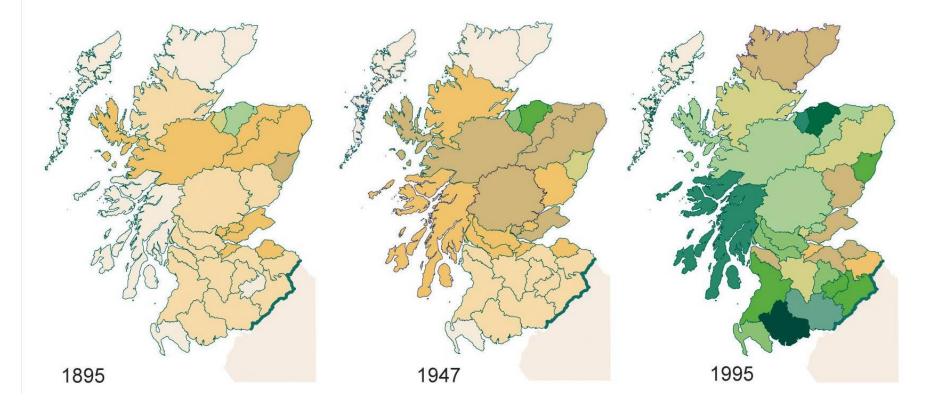
# Upland Scotland 100 years ago: <5% forest

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Scotland 20<sup>th</sup> Century change in forest cover

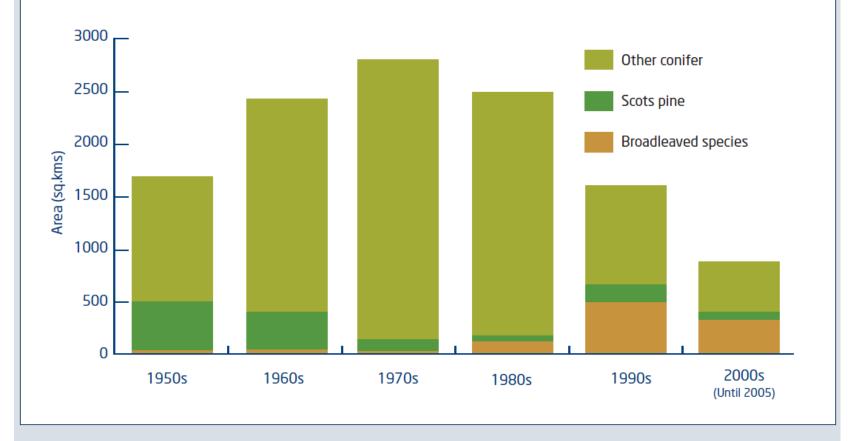






#### FIGURE 1: Planting and Regeneration

Graph by decades since 1950s showing proportion of broadleaves, Scots pine and other conifers (Final column [2000's] is for 5 years only).

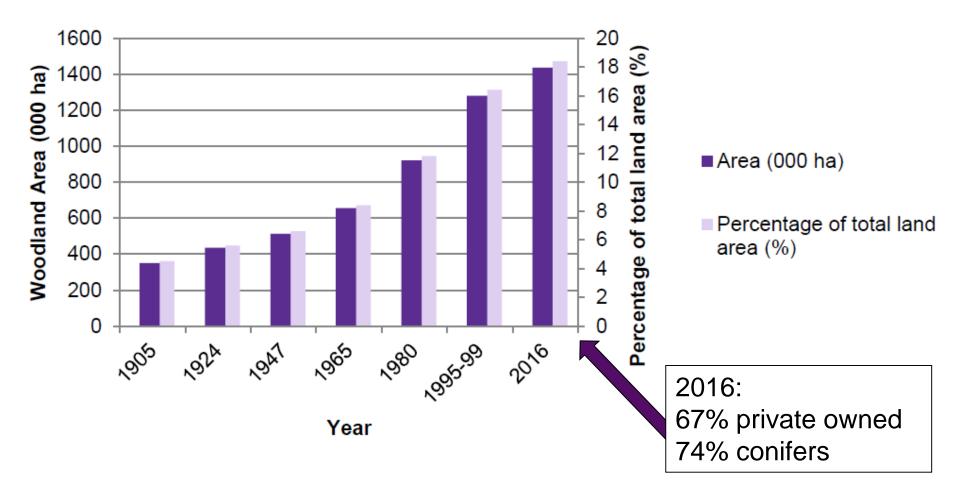


Scottish Forestry Strategy 2006 | 67

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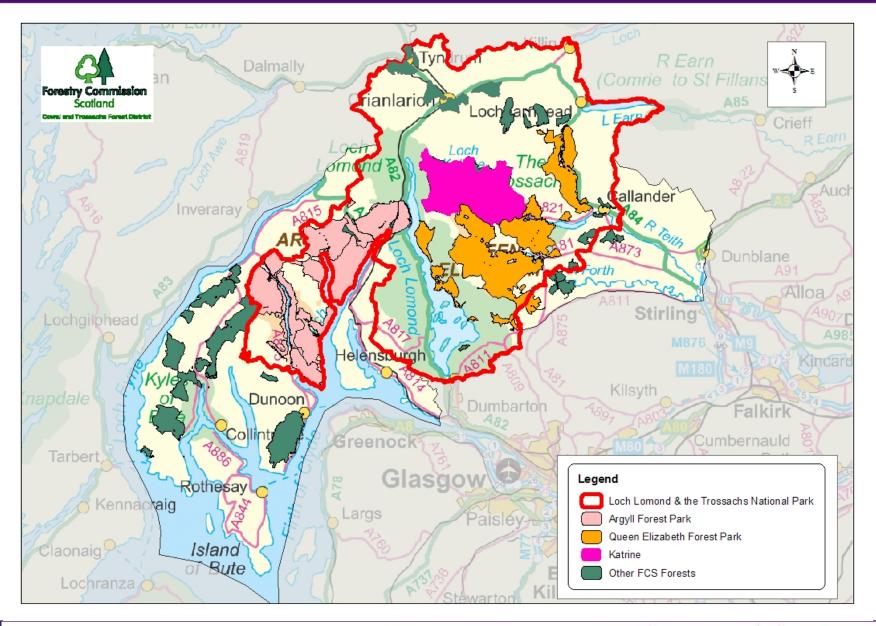


Scotland's forest area



Scottish Government objective is to increase cover to 25% by the 2<sup>nd</sup> half of this century. This will require 650 000 ha of new forest.





#### 20/08/2018

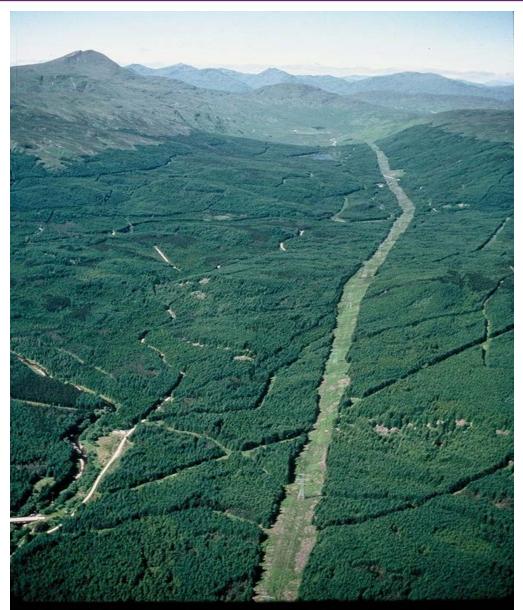
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Queen Elizabeth Forest Park

1993



www.forestry.gov.uk/forestresearch

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Queen Elizabeth Forest Park

Restructuring



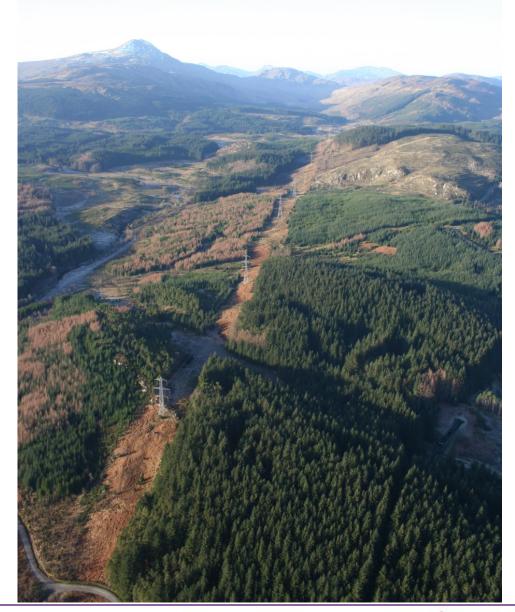
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Queen Elizabeth Forest Park

Demonstration forest



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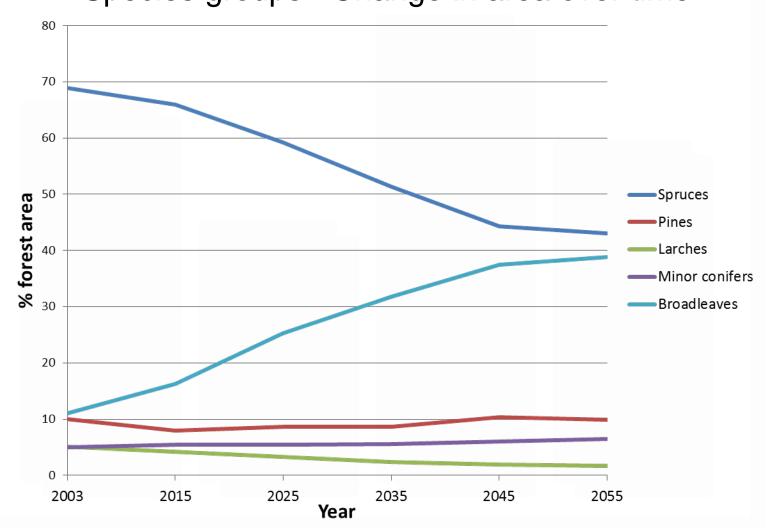
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Queen Elizabeth Forest Park – East Loch Ard Species groups - Change in area over time



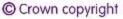
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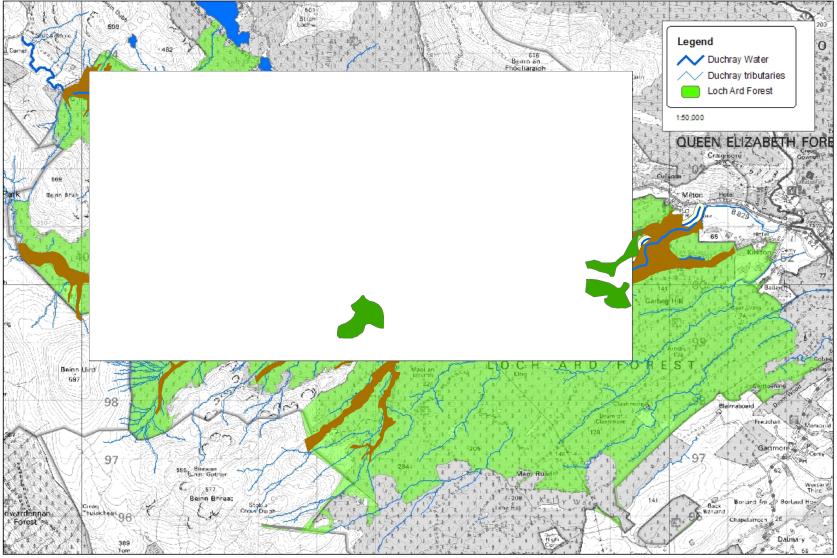
Duchray Water Queen Elizabeth Forest Park











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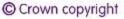
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## Duchray Water Queen Elizabeth Forest Park

**Riparian** zone

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# Continuous Cover Forestry

10% of forest

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# get some tree-time this spring



2007 Opening Times

Provisional opening date end of April -2nd November (see website for updates) Plus weekends throughout November

#### Prices

Gorillas (18 years plus) £25.00 Baboons (10 - 17 years) £20.00 Discounts for schools (see website for details)

#### Booking

Pre-Booking is essential to avoid disappointment Book online at www.goape.co.uk (or call 0870 428 2710 - a £1 booking fee will be charged on telephone bookings) Debit or credit card required



Forestry Commission **Scotland Parking** Charges Cars, minibuses and coaches: £2.00 (Prices, opening times, car parking charges and other conditions may change without notice)

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#### **Go Ape UK Locations**

- (1) High Lodge Forest Centre, Thefford Forest, Suffolk (2) Grizedale Forest, The Lake District (3) The Look Out, Swinley Forest, Berkshire Moors Valley Country Park, near Ringwood (5) Sherwood Pines Forest Park, Nottinghamshire
- Mallards Pike, Forest of Dean, Gloucestershire
- Delamere Forest, Cheshire Bedgebury Forest, Kent New!
- 9 Poole's Cavern, Buxton, Derbyshire New!
- Queen Elizabeth Forest Park, Stirlingshire New!
- Alice Holt Woodland Park, Farnham, Surrey New!
- (2) Dalby Forest, North Yorkshire New!

In association with A Forestry Commission



chance to win four Go Ape tickets. Register at www.goape.co.uk/win

#### **Directions to Go Ape, Queen Elizabeth Forest** Park Aberfoyle, Stirlingshire, Scotland.

From Glasgow follow the A81 north to Aberfoyle. From Stirling follow the A84(T), A873 then A81 west to Aberfovle, From Callander follow the A81 south to Aberfoyle, or for a more scenic route the A821 via the Trossachs. Go Ape is located at the David Marshall Lodge Visitor Centre, a mile north of Aberfoyle on the A821 (Dukes Pass) in the Loch Lomond & The Trossachs National Park. Please allow plenty of time for your journey.

(A) = A Aberfoyle



New for 2007

Queen Elizabeth Forest Park,

Aberfoyle, Stirlingshire

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## www.forestry.gov.uk/fr/AdaptationVideos









5 short films showing how climate change might affect Scotland's forests and how we can increase resilience to climate change threats





Forestry Commission Scotland Coimisean na Coilltearachd Alba





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## Climate Ready Forestry Workshops: Queen Elizabeth Forest Park

Practitioner stories, Discussion sessions, Updates from experts, Attended by public & private sector forest managers, policy makers, scientists

- Preparing for the expected
- Adaptation Stories
- Living with pests and diseases
- Species diversification
- Flood, landslide and wind risks



Scotland's centre of expertise connecting climate change research and policy





# Thanks to: Kate Beauchamp and Tom Locatelli, FR Forestry Commission Scotland and ClimateXChange www.climatexchange.org.uk

**FIGHERIE**