

#### **Native Woodlands and Deer**

**Gordon Patterson** Biodiversity Policy Adviser Forestry Commission Scotland

#### Native woods (>50% native species cover)

- 6 priority woodland types and scrub types

# Near-native woods (40-50% native species)

# Planted woods on ancient woodlands sites (PAWS)

All with minimum area 0.5 ha.



#### **Priority woodland types**

#### Upland birchwoods

#### Native pinewoods

#### Wet woodland

#### Lowland mixed deciduous woodland

Upland oakwoods

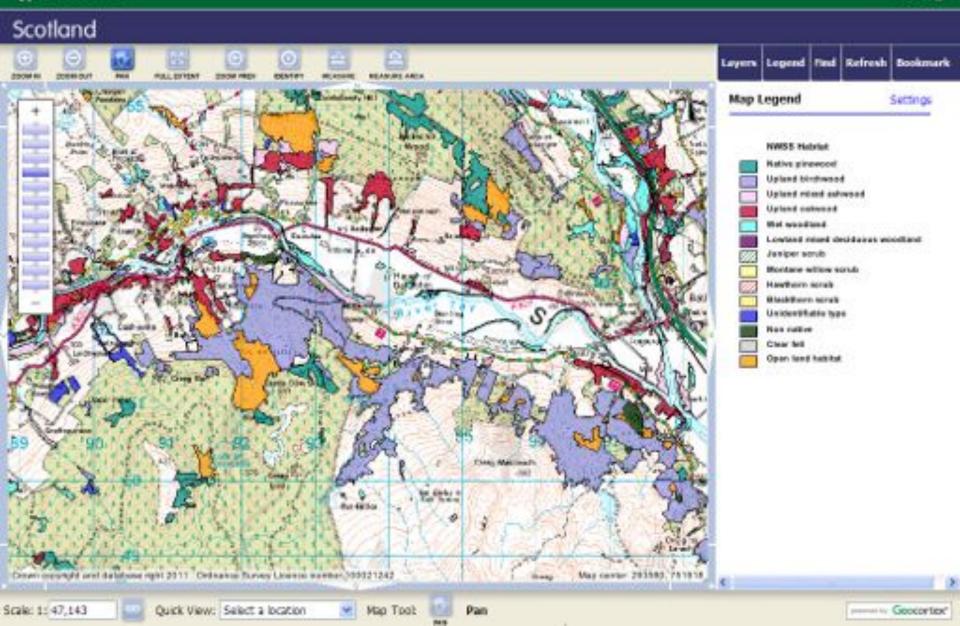
Upland mixed ashwoods



#### Maps of native woodland

Help 🔞

Forestry Commission





### 311,153 ha of native woodlands

- 22.5% of all woodland
  - 4.0% of land area of Scotland

#### 13,383 ha of 'nearly-native' woodland

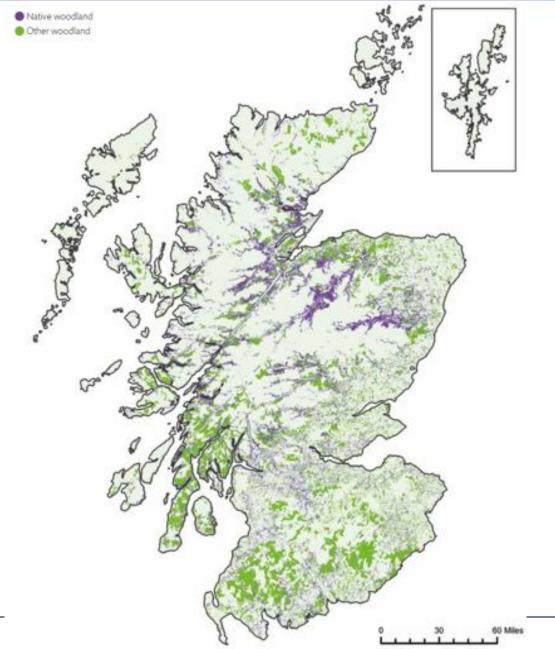
7,900 ha more native woods planted to 31.3.13 Area now **319,000 ha** (22.6% of Scottish woodlands)



#### Table 3. Summary of native woodland area by type

Native Woodland Type <sup>1,2</sup>	Area (ha)	%
Lowland mixed deciduous woodland <sup>3</sup>	23,189	8%
Native pinewoods	87,599	28%
Upland birchwoods	91,235	29%
Upland mixed ashwoods	12,353	4%
Upland oakwoods	19,474	6%
Wet woodland	44,742	14%
Blackthorn scrub	152	<0.1
Hawthorn scrub	2,138	1%
Juniper scrub	1,482	1%
Montane willow scrub	10	<0.1
'Other' type <sup>4</sup>	28,779	9%
Total	311,153	100%







#### Native species %

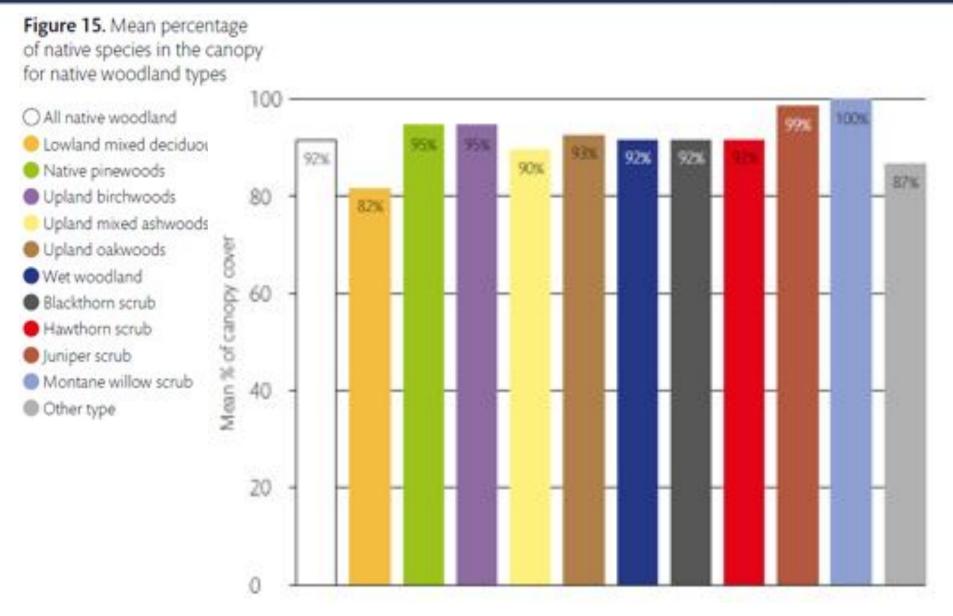


Table 13. Extent of recorded invasive non-native shrub and field layer species in native woods

Species	Area of invasives (ha)	%	% total native woodland area
Rhododendron ponticum	3,691	65%	1.2
Other herbaceous invasive exotics	1,468	26%	0.5
Himalayan balsam	240	4%	0.1
Japanese knotweed	113	2%	<0.1
Giant hogweed	96	2%	<0.1
Snowberry	46	1%	<0.1
Total	5,654	100%	1.8



#### **Ancient woodland loss**

Total loss over an average of 40 years up to 21kha (14%); but may be less\*

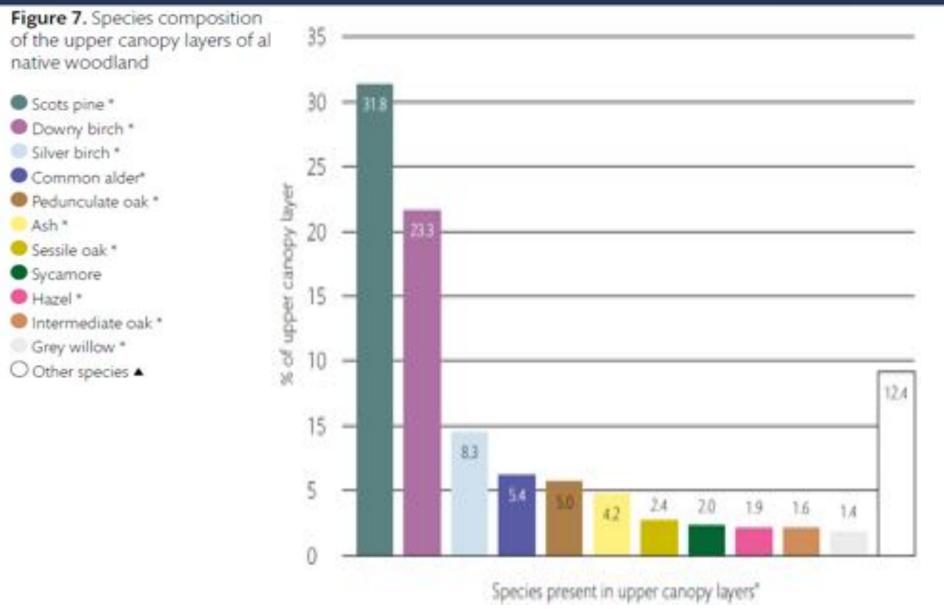
90% of possible loss has been to open unenclosed uplands

Very low levels of loss to development, agriculture and estates/large gardens

<sup>4</sup> Method limitations: eg does not allow for any woodland regeneration outside existing boundaries



#### **Species composition**

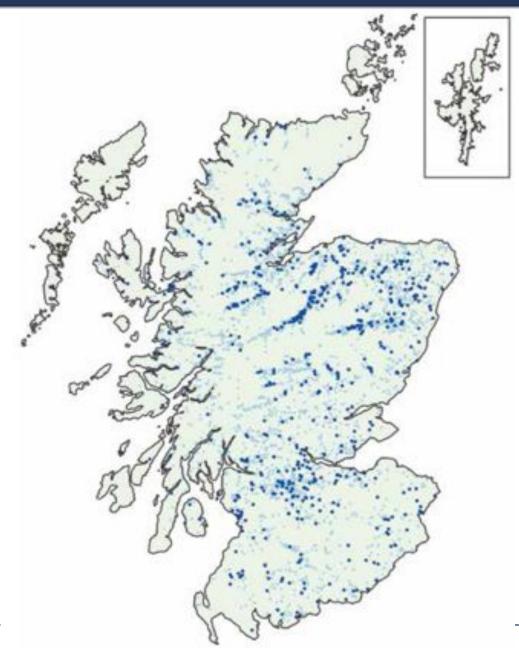




#### **Tree populations**

Figure 11. The distribution of aspen in all woodland surveyed for the NWSS

- Presence of aspen in the polygon
- A minimum canopy cover of aspen (across all structure stages) of 15%.



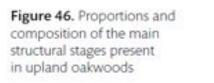
### Woodland type contrasts

Figure 42. Proportions and composition of the main structural stages present in lowland mixed deciduous woodland

Native species
 Non-native species

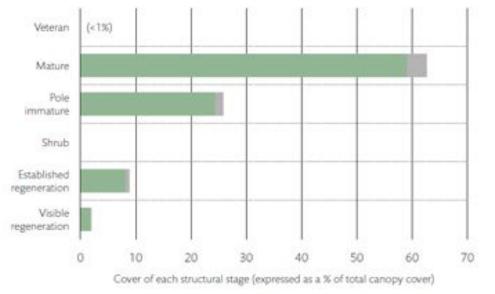
(<1%) Veteran Mature Pole immature Shrub Established regeneration Visible regeneration 0 10 20 30 40 50 60 70

Cover of each structural stage (expressed as a % of total canopy cover)



Native species

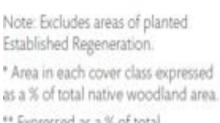
Non-native species



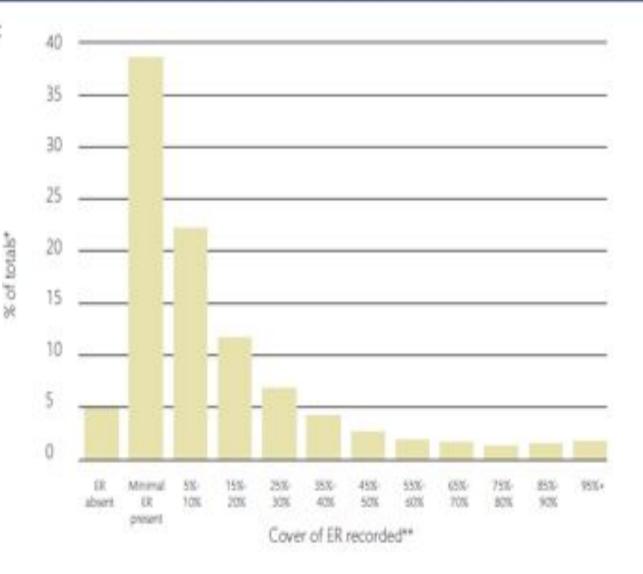


#### **Natural regeneration**

Figure 17. Natural Regeneration: frequency distribution of established regeneration cover classes for all native woodlands



\*\* Expressed as a % of total canopy cover.





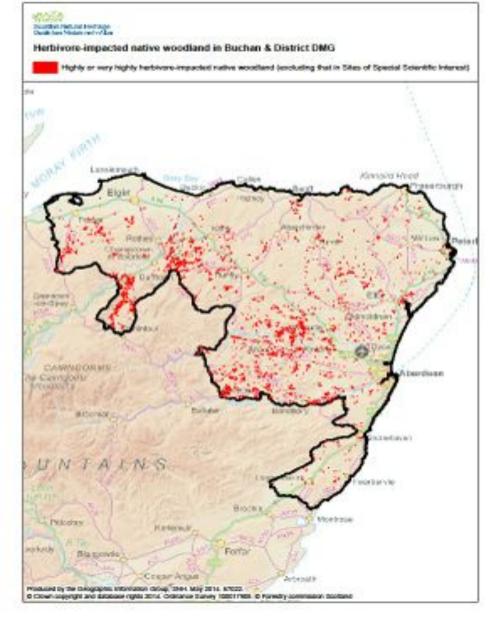
#### 33% of area high or very high impact: would prevent future regeneration if maintained

Type of animals recorded\*:
Deer in 73% of native woodland areas,
Livestock in 15%,
Rabbits/hares in 3.5%

\*recorded as present in over 5% of the polygon area



### High impact by herbivores



NWSS project developed an indicator score with 4 factors (each with desired range):

- **Canopy cover** (50-90%)
- Native species percentage in canopy (at least 90%)
- Herbivore impact rating (low, medium)
- Invasive non-native shrub/field layer plants (under 10% cover and less than 3 species)

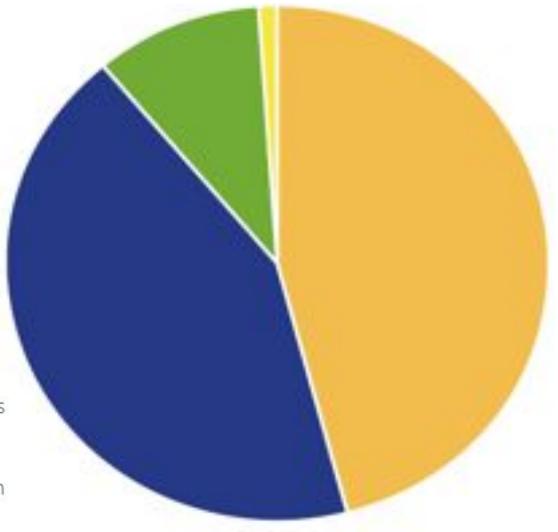
Forestry Commission Scotland Coimisean na Coiltearachd Alba

### **Condition indicator scores**

Figure 22. Native woodland condition indicator values (all native woods combined

4: 143,163 ha (46%)
3: 132,870 ha (43%)
2: 32,096 ha (10%)
1: 2,943 ha (1%)

Note: The chart shows the proportions of native woodland areas that scored 0, 1, 2, 3 or 4 for condition factors i.e. the number of condition factors which are in the desired range.





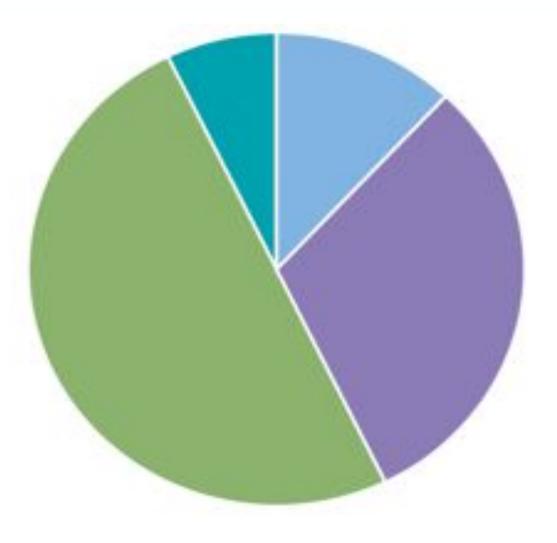
### **Breakdown by factors**

Figure 23. Breakdown of condition factors which are outside the desired range (all native woods)

Canopy Cover (12%)
 Native Species (31%)
 Herbivore Impact (50%)
 Invasives (7%)

Note 1: Figure shows the share of areas scoring 3 or less in the Condition Indicator which is sub optimal for each condition factor (see also Figure 22).

Note 2: Some areas are outside the desired range for more than one factor.





**Current state of native woods** 

Signs of recovery: many woods healthy

**Condition moderate overall** 

Loss of ancient woods, limited regeneration

Herbivore impact the biggest single threat

NWSS data can inform action at national, regional and local scales

## Working together to understand and reduce deer impacts on native woods

- Feed NWSS info into deer plans local and strategic
- Identify hot spots for impacts (also for SSSIs)
- Capacity building: use and interpretation of data, training, guidance, etc
- Other ?

Look at the <u>NWSS webpages</u> for more info