



FARM
ADVISORY
SERVICE

Impacts of Deer on Upland Habitats

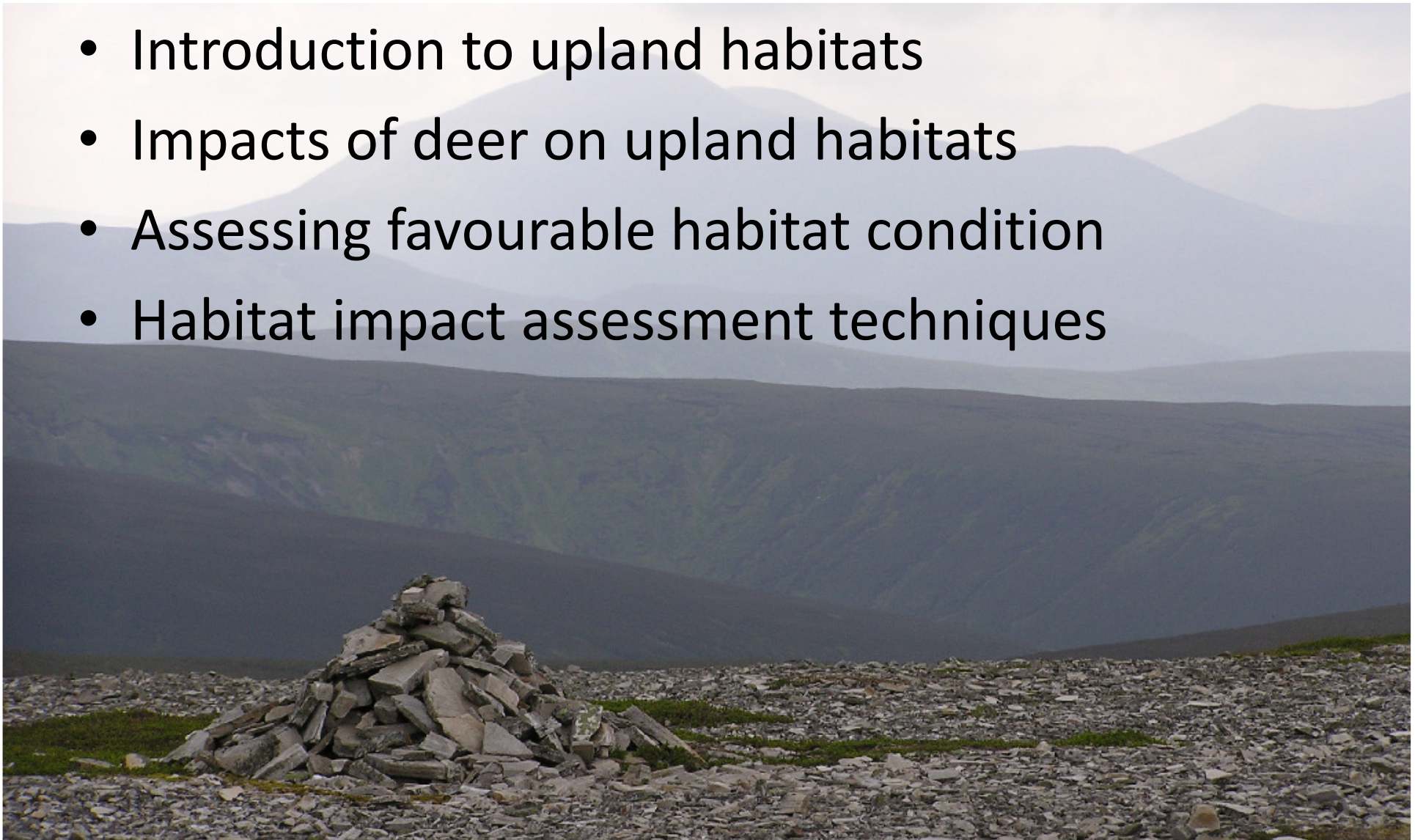
Helen Bibby
SAC Conservation Services

Ardlussa Estate, Isle of Jura

Aims



- Introduction to upland habitats
- Impacts of deer on upland habitats
- Assessing favourable habitat condition
- Habitat impact assessment techniques



Upland / Montane habitats



- ‘Upland’
 - Above the limit of agricultural enclosure
 - Over 300m above sea level
 - ‘Naturally’ wooded, but now also home to a wide range of semi-natural open habitats
- ‘Montane’ habitats
 - Above the natural tree-line
 - Above c.600m above sea level (lower in NW)
 - Most natural and undisturbed habitats in UK

Importance of Upland and Montane habitats



- Contribute to high value landscapes
- Support scarce plant and animal species
- Provide grazing resource
 - heather provides winter forage for browsers
- Ecosystem Services
 - e.g. water catchment protection (reducing water run-off speed during flood events, reducing impacts of acid deposition)

Deer impact



- An impact on a habitat is not necessarily ‘damage’ – may be beneficial
- ‘Damage’ thresholds will vary depending on habitat type and management aims
- Common standards are required to objectively assess damage
- Damage is likely to be taken more seriously in sites of high conservation value
 - Section 7 control agreements

Deer impacts / damage



- Grazing (can reduce height and structural diversity of vegetation)
- Browsing
 - Reduces woodland regeneration(+/- effect)
 - Can reduce heather cover (- effect for winter browsers)
- Trampling / erosion (can destroy vegetation/habitat)

Upland Habitats



‘Moorland’ supports different habitats depending on:

- Soil type (deep peat / shallow peat / mineral)
- Drainage (free draining or waterlogged)
- Water supply
 - Rainfall only (nutrient poor)
 - Groundwater or surface water fed (more nutrients)

Dwarf Shrub Heath - Dry



Found on freely draining soils with little or no peat

**>25% cover of heather / blaeberry / cowberry
(usually much higher cover)**

Dwarf Shrub Heath - Wet



**Found on poorly drained soils with up to
50cm peat**

>25% cover of heather / cross-leaved heath

Deer-grass, Molinia and Bog Asphodel

Dwarf Shrub Heath



**Low grazing pressure: rank heather,
loss of plant diversity**

Dwarf Shrub Heath



Dwarf Shrub Heath



Blanket Bog



Found on gently-sloping deep peat (> 0.5 m)

Nutrient poor (rainfall fed)

Sphagnum moss often abundant

**Heather and Harestail Cotton grass usually
dominant**

Blanket Bog



- Particularly vulnerable to overgrazing and erosion from trampling

Blanket Bog



Particularly vulnerable to overgrazing and erosion from trampling

Other habitats



Flushes and springs



Other habitats



Native Woodland

Grazing preferences of large herbivores



Species	Biting Method	Selectivity	Minimum sward height grazed	Preferences
Sheep	Biting / Shearing	Highly selective	3 cm	Generally avoid Mat grass and rushes
Red Deer	Biting / Shearing	Selective	4 cm	More likely to eat heather and trees than are sheep
Cattle	Pulling / biting / shearing	Slightly selective	> 6cm	More likely to eat mat-grass and purple moor grass than sheep or deer

Guideline Deer Densities and upland habitats (approximate)



Habitat	Deer/km²
Dwarf-Shrub Heath (Dry)	10-20
Dwarf-Shrub Heath (Wet)	5-15
Blanket Bog	<2-4
Woodland Regeneration	<2-4

A close-up photograph of a deer with velvet-covered antlers. The deer is looking slightly to the left of the camera. The background is a dense field of bright yellow flowers, possibly mustard, which are out of focus. The lighting is bright, suggesting a sunny day.

**Thank
You**