

# **WOODLAND MANAGEMENT PRINCIPLES AND PRACTICE**

## **An Introduction for Community Volunteers**

SESSION 2: Types of Woodland and Woodland Ecology

HANDOUT No. 8: **Woodland Ecosystems – Key Parameters**

### 1. SPECIES COMPOSITION AND DIVERSITY

- Tree species diversity
- Productivity, influence of climate and soils
- Disturbance
- Plant and animal biodiversity

### 2. STRUCTURE AND SCALE

- Vertical structure of forest (=stand structure) and number of canopy layers
- Horizontal structure of forest – tree cover %; forest patch and gap size
- Connectivity of forest patches and gaps

### 3. NATURAL REGENERATION

- Shade tolerance
- Gap size

### 4. SUCCESSIONAL PROCESSES

- Stages of succession:
  - a) pioneers
  - b) mid-succession
  - c) late-succession

Arrested Succession – the forest cannot complete a to c due to:

- climate or soils unsuitable for late succession species
- repeated natural disturbance e.g. fires
- lack of late successional species due to non-migration e.g. beech in northern UK
- human intervention favouring earlier successional species