



# Consultancy Services

## Ecological Survey with Management Recommendations

Prepared for Borough Green Parish Council. Sites at Harrison Road, Isles Quarry East and Crowhill

Prepared by Kent Wildlife Trust Consultancy Services



1<sup>st</sup> Draft for client comment

Neil Coombs CEnv, MCIEEM, Ecologist and Land Management Consultant, KWT Consultancy Services



Head Office: Kent Wildlife Trust, Tyland Barn, Sandling, Maidstone, Kent ME14 3BD  
Tel: 01622 662012  
info@kentwildlife.org.uk | kentwildlifetrust.org.uk

Registered Charity No. 239992. A company limited in England and Wales by guarantee 603098. Registered at the above address.



Protecting **Wildlife** for the Future

## Report Verification

|                               |  |
|-------------------------------|--|
| <b>Client</b>                 |  |
| <b>Site / job</b>             |  |
| <b>Central Grid Reference</b> |  |
| <b>Report Title</b>           |  |
| <b>Report Reference</b>       |  |

## Quality Assurance

| <b>Report Version</b> | <b>Date</b>              | <b>Prepared By</b>  | <b>Reviewed By</b> | <b>Approved By</b> |
|-----------------------|--------------------------|---|--------------------|--------------------|
| Draft                 |                          | Neil Coombs<br>Land Management<br>Advisor, KWT<br>Consultancy<br>Services |                    |                    |
| Final                 | Awaiting<br>Consultation |   |                    |                    |

## Contents

|   |    |
|---|----|
| Ecological Scoping Survey and Outline Management Recommendations..... | 4  |
| Scope and Requirements of Report.....                                 | 4  |
| Site Visit.....   | 4  |
| Site Description and Overview.....                                    | 4  |
| Management Objectives.....  | 4  |
| The Site in Context.....  | 5  |
| Habitats.....   | 5  |
| Designated Sites.....   | 5  |
| Historical Information.....   | 7  |
| Biological Records.....   | 7  |
| European Protected Species.....                                       | 7  |
| Site Survey.....  | 10 |

DRAFT

# Ecological Scoping Survey and Outline Management Recommendations

Kent Wildlife Trust Consultancy Services has been commissioned to provide an ecological scoping survey together with outline management recommendations for three sites within the ownership of Borough Green Parish Council.

## Scope and Requirements of Report

The requirement for this report is to provide a brief ecological scoping survey and overview of habitats, together with outline management recommendations for three sites within the ownership of Borough Green Parish Council.

## Site Visit

The site was visited by Neil Coombs CEnv, MCIEEM, Ecologist and Land Management Consultant, Kent Wildlife Trust Consultancy Services on 23<sup>rd</sup> September 2021. The site visit survey methodology consisted of a straightforward walkover survey of the site noting the habitats present.

## Site Description and Overview

The survey area consists of three sites within the ownership of Borough Green Parish Council.

### **Harrison Road**

This is an area of open amenity grassland to the front of the local medical centre. There are a number of mature trees including canopy groups of lime and Scots pine, together with groups of establishing oaks.

### **Isles Quarry East**

A former ragstone quarry, now with establishing and establishing woodland, scrub and open grassland habitats.

### **Crowhill**

An elevated open grass, bramble scrub, gorse and broom mosaic with scattered establishing oaks.

## Management Objectives

The initial objectives of Borough Green Parish Council are to manage the three sites for the benefit of the community improving and promoting access and to maintain and enhance habitats for the benefit of wildlife.

## The Site in Context

The Magic website was consulted on 24<sup>th</sup> December 2021

<https://magic.defra.gov.uk/MagicMap.aspx>

### National Character Area

Borough Green is situated in the National Character Area 120 Wealden Greensand.

## Habitats

The following habitats are shown on the Kent Landscape Information Service map:

Harrison Road is shown as neutral and improved grassland

Isles Quarry East is shown as neutral grassland and broadleaved mixed and yew woodland

Crowhill is shown as neutral grassland and broadleaved mixed and yew woodland

### Habitat Opportunity

Harrison Road habitat opportunity is shown on KLIS as neutral grassland

Isles Quarry East habitat opportunity is shown on KLIS as neutral grassland

Crowhill – no habitat opportunities shown on KLIS

## Designated Sites

### AONB

None

### Sites of Special Scientific Interest

Nearest is Bourne Alder Carr within 1.29 kilometres

Also Oldbury and Seal Chart within 2.5 kilometres

### Local Wildlife Sites

Isles Quarry East is included within the Bourne Valley Woods Local Wildlife Site

### Habitat Features as Shown on MAGIC

#### **Ancient semi-natural woodland, priority habitat inventory-Deciduous Woodland (England)**

Crowhill is shown on MAGIC as deciduous woodland towards the northern boundary and to the south west broadleaved woodland.

Isles Quarry East is shown on MAGIC as part Ancient and Semi Natural Woodland (Long Wood) and as Priority Habitat Inventory-Deciduous Woodland



Isles Quarry East MAGIC map showing approximate site boundary and ancient semi-natural woodland (hatched)



Isles Quarry East MAGIC map showing approximate site boundary and Priority habitat inventory deciduous woodland shown in green

### Other Relevant Designations

None

### Historical Information

The Kent Heritage website was consulted on.

<http://webapps.kent.gov.uk/KCC.HeritageMaps.Web.Sites.Public/Default.aspx>

There is the following historic record;

## **Crowhill**

Crowhill HER number TQ65NW124 Site of Royal Observer Corp underground monitoring post.

The 1<sup>st</sup> Edition Ordnance Survey map shows:

### **Harrison Road**

1871-1890 edition and 1897-1900 shows no features

The 1907-1923 shows vegetation ordnance survey symbol rough pasture

The 1929-1952 shows the existence of an avenue of trees, tanks and quarries

### **Isles Quarry East**

The first edition ordnance survey maps show the development and loss of woodland particularly to Quarry Hill Road

Crowhill no relevant features shown except for development to the east and south on the 1929-1952 edition

## **Biological Records**

The Kent and Medway Biological Records Centre (KMBRC) has not been consulted during the preparation of this report. No biological records have been provided to assist with this report. Reference to the Local Wildlife Site citation, which includes Isle Quarry East, would be useful.

## **European Protected Species**

European Protected Species (such as bats, Great crested newts, otters and dormice) receive full protection under UK law by virtue of The Conservation of Species and Habitats Regulations 2010. These regulations have strengthened the protection provided to European Protected Species (EPS) by removing the defence of an incidental result and make it an absolute offence to:

- Deliberately capture, injure or kill any European Protected Species
- Deliberately disturb them
- Damage or destroy a breeding site or resting place.

In addition, the Wildlife and Countryside Act 1981 (as amended) makes it an offence to intentionally or recklessly disturb a European Protected Species while it is occupying a structure or place which it uses for shelter or protection, or to obstruct access to any structure or place the species uses for shelter or protection.

### **Great Crested Newt**

There is a recently created pond to just beyond the north west boundary of Isles Quarry East.

There is a further pond shown on OS map to 690 metres east of Isles Quarry East.

There is a further pond shown on OS map to 370 metres to south east which appears to be on stream connected to a river and is therefore likely to contain fish and be of low habitat suitability for Great crested newts.

A further pond is situated 500 metres to north of Crowhill over the other side of a railway line which is a barrier to Great crested newt movement.

Whilst garden ponds might exist the overall habitat suitability is probably low and conservation management works at the appropriate time of year and in accordance with best practice guidance would be considered a low risk.

### **Bats**

Bats use trees for roosting and foraging are likely to be present on all three sites. Prior to any works that affect trees we recommend the minimum survey requirement of a ground level bat roost potential survey to identify possible roost features.

Quarry workings where cave-like features and voids exist may support bats, particularly during the hibernation season and works to and within the vicinity of such features should consider the possibility of bats.

### **Otter**

The possibility of otter being present on site as there are riparian features to the southern boundary of Isles Quarry East needs to be considered, although it is low. Otters can travel considerable distances and may use features such as drains and culverts when moving through the landscape.

They may also use scrub habitat to rest up in.

### **European Dormouse**

This is an arboreal woodland species that favours hazel especially where it is maintained in good fruiting condition. The species is likely to be present at Isles Quarry East and possibly at Crowhill. Any conservation works should follow the best practice guidance as provided by the Forestry Commission and possibly with Ecological advice.

### **Other Protected Species**

#### **Water Vole**

Water voles are fully protected under the Wildlife and Countryside Act 1981 (as amended)

Water voles occur mainly along well vegetated banks of slow flowing rivers, ditches, dykes or lakes. The habitats of all three sites are therefore unlikely to support water voles, although they may be present within the vicinity of the River Bourne.

## **Hedgehog**

Hedgehogs are listed on schedule 6 of the Wildlife and Countryside Act 1981, which makes it illegal to kill or capture wild hedgehogs. They are also a species of 'principle importance' under the NERC Act which may confer a 'duty of responsibility' to public bodies.

The British hedgehog is now officially classified as vulnerable to extinction.

## **Badger**

No field signs of badgers were observed during the surveys. There are no signs of recent activity such as recent excavation, spoil heaps, bedding, hairs or scrapings from claws.

Under the Protection of Badgers Act 1992 it is an offence to:

- Wilfully kill, injure or take a badger (or attempt to do so)
- Cruelly ill-treat a badger
- Dig for a badger
- Intentionally or recklessly damage or destroy a badger sett, or obstruct access to it
- Cause a dog to enter a badger sett
- Disturb a badger when it is occupying a sett

## **Birds**

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981. In particular this protection extends to the bird nesting season 1<sup>st</sup> March to 31<sup>st</sup> August.

No records of birds have been provided for this report, however both Isles Quarry East and Crowhill may provide habitat for birds that favour woodland and scrub habitats, including migratory species such as warblers.

Mature trees to Isles Quarry East and Harrison Road may provide suitable habitat for birds that favour woodland canopy, such as tree creepers and nuthatch, together with wood peckers and possibly provide roosting features for species such as tawny owl.

Habitat works such as rotational scrub management, would maintain suitable habitat for a number of species.

## **Invasive and Alien Species**

In particular these may include Himalayan balsam and Japanese knotweed.

Cherry laurel and rhododendron may also be problematic and certain weeds such as common ragwort, spear and creeping thistle and curled and broadleaved dock may be required to be controlled under the Weeds Act 1959.

## Site Survey

The survey methodology was to field walk the site and record habitats and features. Notes were made of significant features and species if possible. The description and notes may be an amalgamation of more than one survey visit.

### Harrison Road



Harrison Road general view looking approximately east and showing neutral grassland, planted or self-sown sapling trees, mature trees to avenue with feature planting and mature Scots pine. Invasive cherry laurel to the right

This area has three habitat features:

- Mature trees
- Establishing trees, saplings and scrub potentially natural regeneration
- Neutral grassland



A group of maturing oaks is present to the south west corner with a well-established footpath. Ground vegetation is sparse in this area.



Feature oak to site with unbalanced crown

## Description

This is an open area of neutral grassland with mature and establishing trees.

### Mature Trees

There is a group of maturing lime with an interlocking canopy, possibly part of an original planted avenue. An avenue of trees is shown in this position on the 1st Edition Ordnance Survey map 1929 – 1952. There is a canopy group of maturing Scots pine, mostly to the north together with oak and a small group of common oak, establishing to maturity.

### Establishing trees, saplings and scrub potentially natural regeneration

Species include:

|          |                |
|----------|----------------|
| Birch    | Rowan          |
| Hawthorn | Scots pine     |
| Oak      | Sweet chestnut |
| Rowan    |                |

### Neutral Grassland

The site is of neutral grassland which appears to be management with regular amenity cutting.

Species include:

|                     |                             |
|---------------------|-----------------------------|
| Common knapweed     | Rose seedling               |
| Bramble             | Oxeye daisy                 |
| Creeping cinquefoil | Red clover                  |
| Plantain            | Bird's-foot trefoil         |
| A hawkweed          | Daisy                       |
| Cow parsley         | Dandelion                   |
| Yarrow              | Dove's-foot crane's-bill    |
| Cock's-foot         | Field mushrooms – two types |
| Cyclamen            | Wild carrot                 |
| A fescue            |                             |

### Recommendations

- Retain existing tree canopy with arboricultural advice
- Consider some works to encourage open field oaks

- Consider some works to established, maturing and sapling oaks to encourage feature field oaks such as pollards
- Consider some works to provide and improve tree features for bats
- Consider grassland sward enhancement to increase species diversity by over-sowing with native wildflower mixes
- Consider some beds of cornfield annual mixes to enhance opportunities for pollinators.



Cornfield Mix at Cambridge Botanical Gardens

## Isles Quarry East

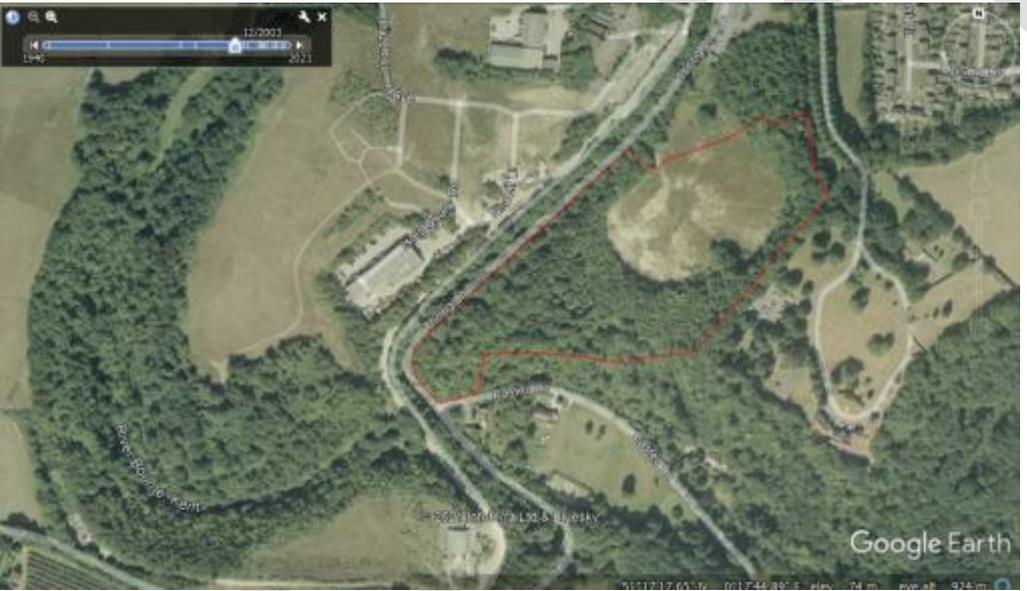
This is the site of a former ragstone quarry. Ragstone is a type of limestone widely used as a building material. Quarring stopped a number of years ago and the site is reverting to semi-natural habitat. During the survey four broad habitat areas were noted as follows:

- Woodland edge habitat
- Woodland
- Open grassland
- Mature woodland

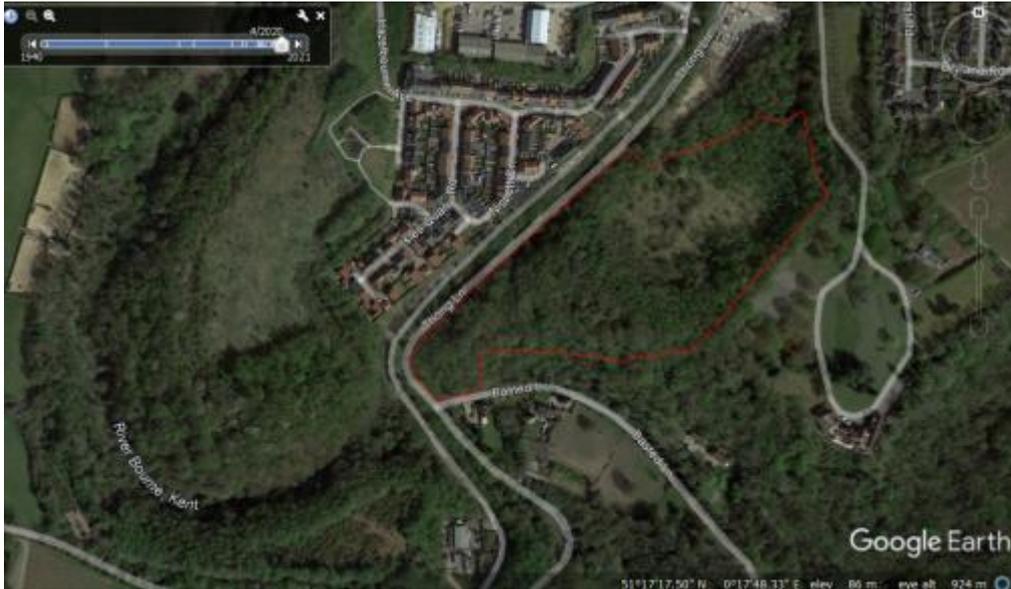
The following aerial photographs show the development of these habitats from 1990 to today.



1990



2003



2020

The aerial photographs show extensive workings during the 1940's with small areas of existing woodland mostly to the periphery. Further aerial photographs show the development of secondary woodland and grassland and scrub around the open area feature.

The Kent Landscape Information System habitat survey map broadly agrees and shows broadleaved, mixed and yew woodland with an open area of neutral grassland.

The habitats found on survey are as follows:

- Woodland edge habitat
- Woodland
- Open grassland
- Mature woodland

## Woodland Edge habitat



General view of approach to site from area to the north with new pond. Establishing mixed broadleaved woodland with maintained semi-improved grassland

Establishing pioneering woodland of willow and birch over buddleia, with some field maple, dogwood, hawthorn, rose, bramble, occasional sycamore, wild clematis, hazel. Sallow to perimeter.



Main clearing area with open grassland and encroaching scrub habitat



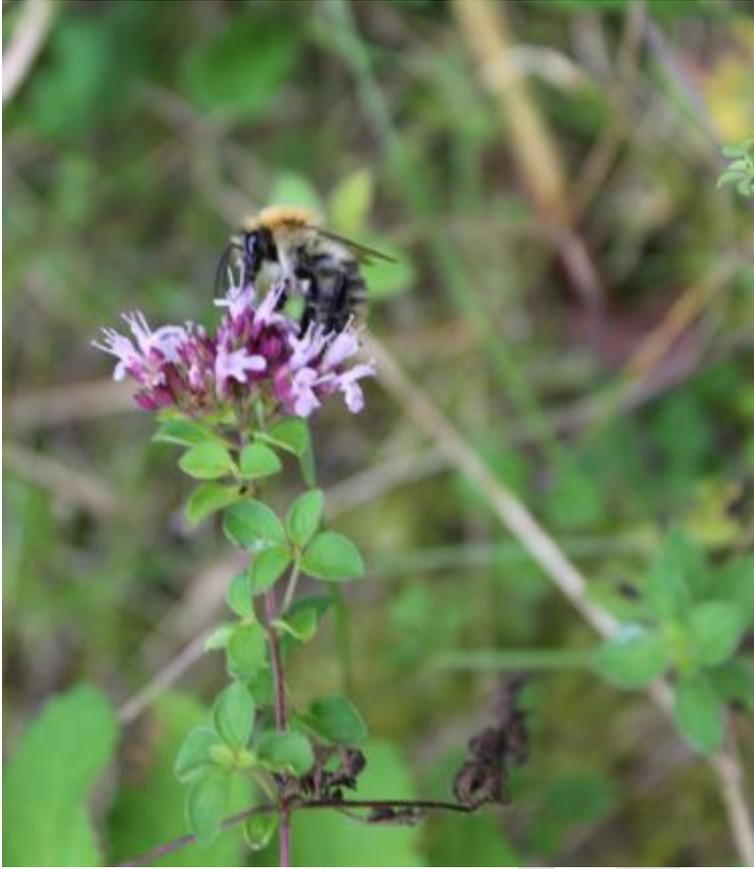
Scrub establishing to open grassland area and grading to woodland edge habitat



Open grassland habitat of central clearing grading to woodland and woodland edge habitat



Invasive scrub encroaching over open grassland habitat



Bumblebee feeding on marjoram



In places woodland is establishing to sloped area, which are possibly former quarry workings



Features such as shown here may have the potential to support roosting bats

## Discussion

Overall the site is typical of reversion of open habitats to woodland with a number of successional stages represented. The open grass glades show a good range of species and there are calcareous habitat indicators present.

Scrub is present and provides important habitat and structural diversity, especially where it extends the more mature woodland. In places it is establishing over the open grassland and this is not as desirable. Towards the southern section of the site the scrub is more of willows and provides another important habitat.

The mature woodland adds another important feature to the site and in a small section retains ancient semi-natural woodland. Without management intervention it will succeed to high forest. Some small scale management intervention such as coppicing will help to maintain diversity.

Species recorded on survey:

|                            |                       |
|----------------------------|-----------------------|
| Yorkshire fog              | Rye grass             |
| Cow parsley                | A vetch cultivar      |
| Meadow foxtail             | A barley/hordeum spp. |
| Hop trefoil or black medic | Wood avens            |

|                              |                        |
|------------------------------|------------------------|
| Ash saplings                 | Common knapweed        |
| Cotoneaster (could invade)   | False wood brome       |
| Beech seedlings (occasional) | Hawthorn               |
| Hawthorn saplings            | Oak saplings           |
| Spindle                      | Silver birch           |
| Sweet chestnut               | Larch                  |
| Wild basil                   | Red bartsia?           |
| Hazel saplings               | Dogwood                |
| Willowherb                   | Ash saplings           |
| Yarrow                       | Marjoram               |
| Bird's-foot trefoil          | Wild carrot            |
| Agrimony                     | Ribwort plantain       |
| Red clover                   | Field maple            |
| Mature ash                   | Pendulous sedge        |
| Bramble                      | Ivy                    |
| Hart's tongue fern           | Holly (vey occasional) |
| Upright hemp nettle          | Hedge parsley          |
| Nettle-leaved bell flower    | Crack willow           |
| Goat willow                  |                        |

## Recommendations

- A series of open grassy glades should be maintained by regular cutting with the arisings removed or composted on site. In these areas scrub should make up no more than 5% of the habitat
- Surrounding these areas scrub habitat should be maintained to no more than 5 metres in height on a regular rotational basis
- The scrub should be maintained, particularly towards the established woodland to provide woodland edge habitat
- Where coppicing of woodland has previously taken place, it should be reinstated
- The woodland should be encouraged to have a diverse vegetation structure, with no one particular species achieving dominance
- Standing dead wood and fallen dead wood should remain in situ where this is possible with regard to public safety
- A ground flora survey, particularly of the ancient woodland area and former quarry workings, is recommended
- The potential of the woodland to support bats, particularly in voids and cervices, should be considered

## Crowhill

This is a small elevated site of mostly slightly acidic semi-improved grassland with low scrub of bramble and gorse. There are a number of open grown field oaks which are developing value habitat features. The scrub, whilst a valuable component of the habitat mosaic, should be managed so that a balance is maintained with the open grass glades. Mature woodland should be retained with some limited management intervention so that habitat value does not decline.





Within the site are a number of small field oaks with a good balanced crown structure and forming small woodland areas



In places and to the footpath denser and more established woodland is present with oaks maturing to canopy with a good structure of understorey shrubs, although cherry laurel is invasive to places. Within

this section of the woodland coppiced hazel is present and provides the potential for dormouse habitat. In places and at the bottom of a quite steeply sloping path is a small area of oak and hazel combination over a bramble understorey



Some of the oaks are self-pollarded or perhaps damaged and the low pollard form suggests that they go on to exhibit veteran tree features which would increase their biodiversity value.



There is a good distribution of fallen dead wood of a good size and this is providing valuable additional habitat for fungi and potentially for invertebrates which depend on deadwood habit. These features suggest that the open grown field oaks are a valuable habitat feature.



The habitat mosaic of grassland and maturing oak trees should be maintained and enhanced



The scrub on site is a valuable habitat but needs to be maintained on a rotational basis

Species recorded:

|                          |  |
|--------------------------|--|
| Agrostis                 | Ribwort plantain                         |
| Creeping buttercup       | Common sorrel                            |
| Nettles                  | Silver birch (occasional)                |
| St John's-wort           | Yarrow                                   |
| A bell-flower            | Holly                                    |
| Cherry laurel (invasive) | Norway maple                             |
| Hazel (occasional)       | Hazel coppice ( 10r 2 old hazel coppice) |
| Rowan saplings           | A prunus                                 |
| Honeysuckle              |  |

## Recommendations

- Retain open grassland and if possible cut every two years removing the arisings or composting them on site
- Retain field oaks and retain fallen dead wood in situ
- Consider veteranisation features if possible and be aware of the potential for bat roost habitat
- Retain scrub and reduce by 5-10% if possible

- Implement scrub management on a rotational basis cutting back and allow to regrow so that it does not exceed 5 metres in height
- Consider some “light” woodland management to retain shrub layer where possible and reinstate coppicing so that that woodland does not go to high forest closed canopy woodland that lacks a good shrub layer.

DRAFT