Wild Ennerdale

United Utilities

THE NATIONAL TRUST

Forestry Commission England

*Photograph Gillerthwaite, Ennerdale by P.Ullrich August 2008*

# Bird Monitoring 2008 – Valley Bottom Grazing

A report by
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Commissioned by
The Wild Ennerdale Partnership -
Forestry Commission, National Trust
& United Utilities
9th Sept 2008

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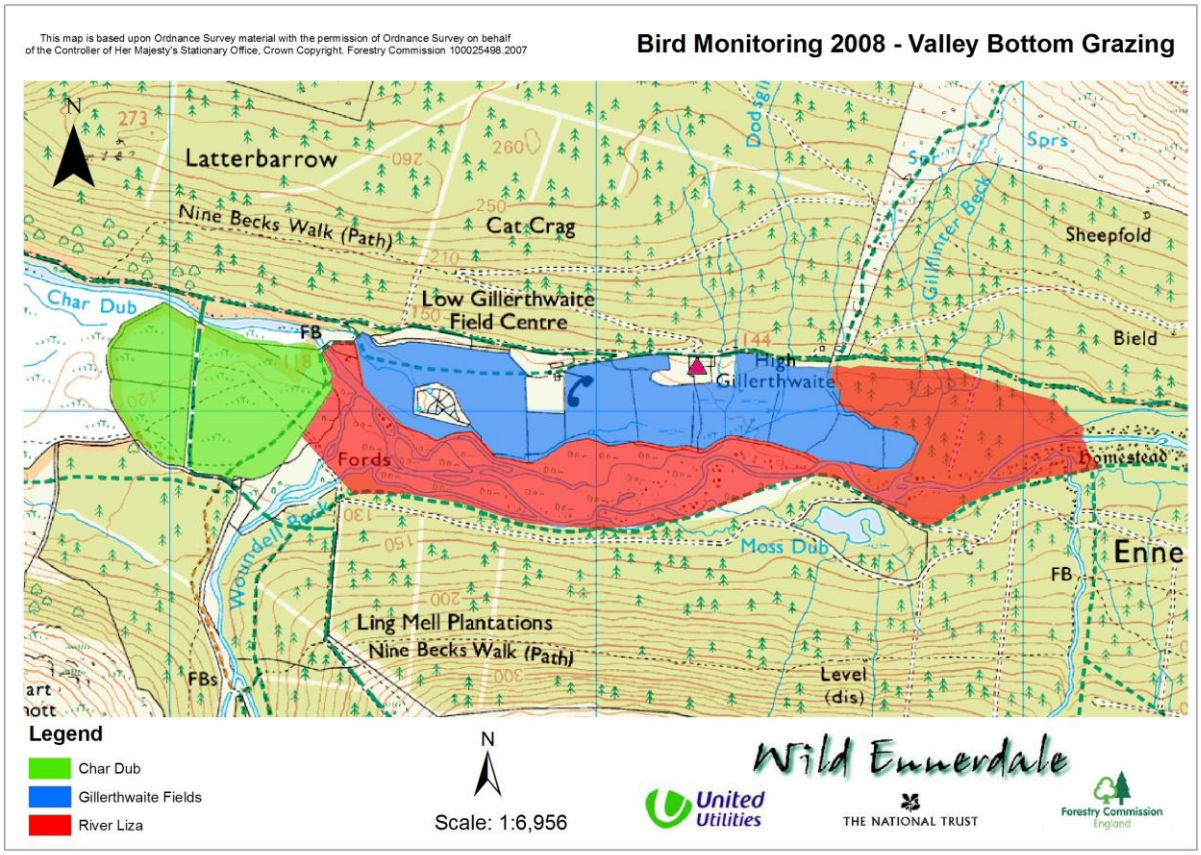
## Introduction and Objectives

The guiding principles set out in the *"Wild Ennerdale"* stewardship plan provide an understanding of the ethos of the project and why monitoring of the bird population in the valley bottom was commissioned by the Ennerdale partners in 2008.
The vision statement allows *" the evolution of Ennerdale as a wild valley for the benefit of people, relying more on natural processes to shape its landscape and ecology".*
Within the eleven principles supporting this vision is that of monitoring and assessing change, in the knowledge that ***"****Reducing the intensity of our inputs in terms of forestry and farming activity will have direct impacts on nature conservation…"*
A breeding bird survey was commissioned to establish baseline data, prior to the implementation of significant changes to the conservation management in the study area (see map below):



## Conservation Management

The "Valley Bottom Grazing' Study Area is divided in to 3 distinct sub plots, each of which will be subject to different management techniques. They are to be referred to as:

1. Char Dub
2. Gillerthwaite Fields
3. River Liza

For detailed vegetation and habitat classifications of the study area refer to the National Vegetation Classification (NVC) surveys and maps by R. Jerram, available on the "Wild Ennerdale" website: www.wildennerdale.co.uk/managing

### 1. Char Dub

Mainly semi-improved grassland.
The grazing management of this area will remain relatively unchanged. It is an important area for lambing and sheep grazing.

### 2. Gillerthwaite Fields

In recent years this area - essentially semi-improved grassland with areas of wet meadow at the east end - has been an important area for lambing and sheep grazing. Sheep and lambs were present during the survey period in 2008 but grazing was removed by August 2008.
Extensive all year round cattle grazing will be phased in during 2009/10 following at least a year where no grazing will take place. This fallow period is aimed at allowing the vegetation to rough up and the grass sward to be come more dense. The cattle grazing the River Liza sector will be gradually given access to the Gillerthwaite Fields as and when the Wild Ennerdale Partners, Natural England and the farmer feel that it is appropriate.

### 3. River Liza

Until recently, the area to the east of "Gillerthwaite Fields" was a young spruce plantation. The final part of this was clear-felled in 2007, part of which is now regenerating with native broadleaf.
The remaining area, in the vicinity of the braided river system to the south of the "Gillerthwaite Field" system, is made up of a complex mosaic of habitats including impenetrable gorse scrub, dry heath, wet heath, herb-rich mire and a mix of deciduous and self-sown conifers.
The Liza is prone to large fluctuations in water levels and at this point in the valley is constantly shifting course. It is not surprising, in times of drought, that areas of river bed are exposed leaving gravel beds and shingle which can be exposed for several weeks and substantial areas remain free of vegetation. This riparian habitat is highly dynamic with new areas of deposition and erosion constantly in flux.
The "River Liza" is fenced off from the grazed Gillerthwaite fields and has never been stocked in living memory although adhoc discussions suggest that extensive cattle grazing across the valley including the young forest may have been a feature of the early 20$^{th}$ century just after the forest was planted. The only grazing recently has been by deer and occasional escaping sheep.

One of the defining strategies in terms of conservation management for the “Wild Ennerdale” project is to: *“ Introduce extensive year round naturalistic grazing by large herbivores (cattle) to create and maintain structural diversity and open areas within the valley.”*

In 2006 cattle were introduced to a trial plot in Silvercove. A second herd of these hardy black Galloway cattle was introduced to the “River Liza” study area in May 2008. The presence of cattle will modify the plant communities present in the study area. As a direct result, it is expected that the makeup of the bird species present in the study area will also be modified, though it is impossible to predict which species will benefit from this process. The establishment of baseline data at the inception of such innovative and long-term conservation techniques is not only essential in order to assess and quantify changes in the future, but is also totally reflective and supportive of the philosophy of the Wild Ennerdale project which recognizes the “*growing interest amongst farmers and conservation bodies of the role cattle can play in benefiting the local landscape and habitats. Cattle are less selective grazers than sheep and can favour certain vegetation special to this site.*

*The heavier weight of cattle can have a positive impact on bracken and low scrub, breaking up mats of dead litter and creating pathways through tall, dense vegetation. The cattle can also create more ground disturbance and benefit tree seedlings by 'burying' them into the ground. Cattle are considered to be a missing 'natural process' in Ennerdale.”*

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## Survey Proposals

### Aims and Objectives

To record and map all territorial bird species present in the Char Dub, Gillerthwaite Fields and River Liza study area. (See map *"Bird Monitoring 2008 – Valley Bottom grazing".)*

### Methodology

Use a shortened three visit version of the British Trust for Ornithology's (BTO) Common Bird Census (CBC) methodology, with a single visit each month in April, May and June. The original method can involve between eight and ten visits. However, to make this a cost-effective approach to gathering data, only three visits are used with at least three weeks between visits. (The three visit approach is commonly used by both Natural England (NE) and RSPB).

The CBC method is essentially a walkover survey with birds detected by listening, scanning by eye and with binoculars. A route is chosen to ensure that all parts of the study area are covered to within 100m. The same route is used for all three visits and is plotted onto the survey map as it is carried out. A GPS is used to record the route and also to plot bird records as accurately as possible. Standard BTO codes and recording conventions are used to map birds. All bird species are recorded, although birds flying/commuting over the site are not regarded as territorial, and accordingly these non-territorial birds are not transferred on to species maps. The surveys are carried out between 08:00 and 18:00hours, avoiding strong winds, heavy rain, fog and low cloud.

The CBC has been running since 1962 and was instigated to provide sound information on farmland bird populations in the face of rapid changes in agricultural practice. The same observers survey the same plots using the same methods year after year.

A territory-mapping approach is used to estimate the number and positions of territories of each species present on each survey plot during the breeding season. All contacts with birds, either by sight or sound, are plotted on large-scale maps. Codes are used to identify the birds' species, sex and age where possible, and also to record activity such as song or nest-building. The registrations are then transferred to species maps.

The pattern of registrations reveals the numbers of territories for each species. By applying rigorous rules while analysing the species maps, one can be sure that there is consistency between estimates from year to year. Comparison of territory totals with those for the same plots in previous years gives estimates of change between years. As the "Wild Ennerdale" project has detailed habitat maps and information for the study area, this makes it possible to match the distribution of bird territories with habitat features, providing the potential for detailed studies of bird-habitat relationships.

Records from the three survey visits are combined and presented on separate maps for each species. These species maps are analysed, identifying clusters or groups of registrations that represent one male and one female (or two adults). These clusters will be used to determine the number and location of breeding territories present within the study area. The breeding status is shown in Table 1. Attention will be paid to species of conservation concern, particularly red and amber Birds of Conservation Concern (BoCC) species.

Key to species maps:
Species recorded during visit 1 (April) are indicated by the letter “A”.
Species recorded during visit 2 (May) are indicated by the letter “B”.
Species recorded during visit 3 (June) are indicated by the letter “C”.
(The species maps can be located on the “Wild Ennerdale” website as a PDF.)

**Survey Details**

**Valley Bottom survey No1 22/04/08**
Duration of surveys - all times are BST:
Char Dub 09:00 – 10:00hrs
Gillerthwaite Fields 11:20 – 13:31hrs
River Liza 13:35 – 16:27hrs
Note: the survey was suspended from 12:28 to 12:54 to talk with YHA warden.
**Weather Conditions**
100% thin high cloud, hazy sun, visibility 10km, cool easterly force 3 to 5, ground is hard and dry. As the survey progresses it becomes warm with the cloud thinning to around 50% high cloud cover.
**River Liza – water levels**
Well below normal water levels, enabling the surveyor to criss-cross river bed in several places.

**Valley Bottom survey No2 17/05/08 & 18/05/08**
Duration of surveys, all times are BST:
Char Dub (18/05/08) 08:00 – 08:50hrs
Gillerthwaite Fields (18/05/08) 09:10 – 10:40hrs
River Liza (17/05/08) 09:40 – 12:18hrs
**Weather Conditions 17/05/08**
100% high cloud, hazy sun, visibility 20km+, cool, wind very light easterly force 1 to 2, ground is hard and dry after long dry spell.
**Weather Conditions 18/05/08**
No cloud, sunny, very good visibility 20km+, cool, wind very light north easterly force 1 to 2, ground is rock hard and dry after long dry spell.
**River Liza – water levels**
Very low water levels after prolonged dry spell, enabling the surveyor to criss-cross river bed in several places.

**Valley Bottom survey No3 09/06/08**
Duration of surveys, all times are BST:
Char Dub 15:22 – 16:07hrs
Gillerthwaite Fields 12:55 – 14:45hrs
River Liza 10:15 – 12:55hrs
**Weather Conditions**
Warm and sunny, 60% thin high cloud, good visibility 20km, westerly force 3 to 4, ground is hard and dry.
**River Liza – water levels**
Exceptionally low water levels after prolonged drought, enabling the surveyor to criss-cross river bed in several places. In many places river could be crossed without getting wet!

## Survey Results
## Table 1

| **Table 1: Wild Ennerdale valley bottom grazing study 2008<br>Bird Species present or territorial in sub plots Char Dub, Gillerthwaite Fields and River Liza in the 2008 breeding season.** | | | | |
|---|---|---|---|---|
| Key to observed behaviour: P = Present or Foraging; T = Territorial;<br>A = Probable nest site adjacent to study area; | | | | |
| Species | Conservation Designation* | Char Dub | Gillerthwaite Fields | River Liza |
| Greylag Goose | [part of a naturalised population] | | P | P |
| Mallard | Green | | P | |
| Goosander | Green | | | P |
| Pheasant | Green | | | P |
| Grey Heron | Green | | | P |
| Common Sandpiper | Green | | | P |
| Wood Pigeon | Green | | P | P |
| Green Woodpecker | Amber | | T | T |
| Great Spotted Woodpecker | Green | | T | P |
| Meadow Pipit | Amber | T | T | T |
| Pied Wagtail | Green | T | T | |
| Wren | Green | | | T |
| Dunnock | Amber | | | P |
| Robin | Green | P;A | P;A | T |
| Whinchat | Green | | P | |
| Blackbird | Green | P;A | P | |
| Song Thrush | Red | | P | T |
| Mistle Thrush | Amber | P;A | A | A |
| Garden Warbler | Green | | A | T |
| Chiffchaff | Green | | A | A |
| Willow Warbler | Amber | | P;A | T |
| Goldcrest | Amber | | | P |
| Long-tailed Tit | Green | | | P |
| Coal Tit | Green | | | T |
| Blue Tit | Green | | T | |
| Great Tit | Green | | T | P |

| | | | | |
|---|---|---|---|---|
| Jay | Green | | | P |
| Magpie | Green | P | P | |
| Carrion Crow | Green | P | P | P |
| Chaffinch | Green | | T | T |
| Siskin | Green | | | P |
| TOTAL = 31 | Green = 23<br>Amber = 6<br>Red = 1 | Total = 7<br>Total P;T = 7<br>T = 2<br>P = 5<br>A = 3<br>P;A = 3 | Total = 19<br>Total P;T = 16<br>T = 7<br>P = 9<br>A = 5<br>P;A = 2 | Total = 25<br>Total P;T = 23<br>T = 9<br>P = 14<br>A = 2 |

**Key to table 1**

Birds recorded in the course of the survey are placed in to one of three categories:

**P = Present on site.**

The species are seen actively utilizing the site, such as foraging on the ground or in shrubs/trees, or perching or roosting on site. As well as the breeding residents/migrants, this can also include migrants moving through the site en-route to another breeding location as long as they are seen actively utilizing the site.

**T = Evidence of a breeding territory in the study area.**

This is the highest level of "presence". To qualify as a territory:

- the species has to be recorded in the same area on at least two of the visits. This can include a singing male recorded on at least one of the visits with another registration of the species in the same area on another visit, or a pair present in the same location on more than one occasion. These territories are identified as clusters surrounded by a red circle on the species maps.
- the species must be seen carrying food or its nest located, or recently fledged young located.

**A = Nest site probably adjacent to the study area**

The study area is surrounded by extensive mixed woodland. Several species forage in the study area and nest in the adjacent woodland. Others are not recorded on site but nest directly adjacent to the study area. Where there is evidence of breeding behaviour adjacent to the site such as a singing male recorded in the same location adjacent to the study area on more than one visit then the **A** status is used.

If the species is recorded utilizing the site and there is sufficient evidence to infer a nesting territory adjacent to the site then the **P** status is supplemented with the **A** status.

**Table 2**

| **Table 2: Wild Ennerdale valley bottom grazing study 2008 Additional species seen flying over sub plots Char Dub, Gillerthwaite Fields and River Liza in the 2008 breeding season.** | | | | |
|---|---|---|---|---|
| Species | Conservation Designation* | Char Dub | Gillerthwaite Fields | River Liza |
| Sparrowhawk | Green | | F | F |
| Lesser Black-backed Gull | Amber | | F | |
| Swallow | Amber | F | F | F |
| Grey Wagtail | Green | F | | |
| Total = 4 | Green = 2<br>Amber = 2 | F = 2 | F = 3 | F = 2 |

**F = Additional species seen flying over the site.**

These are additional species to those recorded in the **P, T or A** categories. These species are not seen to land or take off from the study area. Included are "aerial" foragers hawking for insects or pursuing avian prey or birds merely commuting over the site. Flight activity over the site does not infer any behaviour relating to a nesting territory in the study area. To avoid confusion these birds are not mapped on to the species maps. They are recorded in Table 2 so as to give a complete species list of all the bird species recorded in or over the survey envelope during the course of the survey.

**Summary**

Results shown from Tables 1 and 2 for the whole study area (all 3 sub-plots)

A. A total of 35 species were recorded during the survey

i. 13 species exhibited "territorial" behaviour on site (breeding status T) - green woodpecker, great spotted woodpecker, meadow pipit, pied wagtail, wren, robin, song thrush, garden warbler, willow warbler, coal tit, blue tit, great tit and chaffinch.

The species listed above have the following BoCC designations:

- Red list – song thrush.
- Amber list – green woodpecker, meadow pipit, and willow warbler.
- Green list – great spotted woodpecker, pied wagtail, wren, robin, garden warbler, coal tit, blue tit, great tit, and chaffinch.

ii. 17 species were "present" on site (breeding status P) – greylag goose, mallard, goosander, pheasant, grey heron, common sandpiper, wood pigeon, dunnock, whinchat, blackbird, mistle thrush, goldcrest, long-tailed tit, jay magpie, carrion crow and siskin.

The species listed above have the following BoCC designations:

- Amber list – dunnock, mistle thrush and goldcrest.
- Green list – greylag goose, mallard, goosander, pheasant, grey heron, common sandpiper, wood pigeon, whinchat, blackbird, long-tailed tit, jay magpie, carrion crow and siskin.

iii. 1 species had a probable "nest site adjacent" to the site (breeding status A) but was not recorded using the site – chiffchaff.

The species listed above has the following BoCC designation:

- Green list – chiffchaff.

Note – several of the species recorded in categories P & T are also likely to have breeding territories adjacent to the study area. Some of these adjacent territories were located from within the study area by pinpointing singing birds. (See Table 1 for territories located adjacent to the three sub-plots.)

iv. 4 species were recorded "flying over" the site (breeding status F) – sparrowhawk, lesser black-backed gull, swallow and grey wagtail.

The species listed above have the following BoCC designations:

- Amber list – lesser black-backed gull and swallow.
- Green list – sparrowhawk and grey wagtail.

Note – it is known that several pairs of swallow nest just outside the study area in the barn at Low Gillerthwaite Field Centre.

B. Analysis of data for sub-plots 1. Char Dub, 2. Gillerthwaite Fields, 3. River Liza.

The survey of the valley bottom grazing 2008 was carried out as three stand alone sub surveys, thus allowing future surveys to relate changes in habitat to changes in species distribution and densities.

1. Char Dub - A total of 7 species were recorded during the survey (birds over flying the plot in "status F" are not included in the analysis) – meadow pipit, pied wagtail, robin, blackbird, mistle thrush, magpie and carrion crow

i. 2 species exhibited "territorial" behaviour on site (breeding status T) - meadow pipit and pied wagtail.

The species listed above have the following BoCC designations:

- Amber list – meadow pipit.
- Green list – pied wagtail.

ii. 5 species were "present" on site (breeding status P) – robin, blackbird, mistle thrush, magpie and carrion crow.

The species listed above have the following BoCC designations:

- Amber list – mistle thrush.
- Green list – robin, blackbird, magpie and carrion crow

Three of the above species as well as being "present" on site probably had nest sites adjacent to the Char Dub study plot (breeding status A) – mistle thrush, robin, blackbird.

2. Gillerthwaite Fields - A total of 19 species were recorded during the survey (birds over flying the plot in "status F" are not included in the analysis) – greylag goose, mallard, wood pigeon, green woodpecker, great spotted woodpecker, meadow pipit, pied wagtail, robin, whinchat, blackbird, song thrush, mistle thrush, garden warbler, chiffchaff, blue tit, great tit, magpie, carrion crow and chaffinch.

i. 7 species exhibited "territorial" behaviour on site (breeding status T) - green woodpecker, great spotted woodpecker, meadow pipit, pied wagtail, blue tit, great tit and chaffinch.

The species listed above have the following BoCC designations:

- Amber list – green woodpecker and meadow pipit.
- Green list – great spotted woodpecker, pied wagtail, blue tit, great tit and chaffinch.

ii. 9 species were "present" on site (breeding status P) – greylag goose, mallard, wood pigeon, robin, whinchat, blackbird, song thrush, magpie and carrion crow.

The species listed above have the following BoCC designations:

- Red list – song thrush.
- Green list – greylag goose (naturalized population), mallard, wood pigeon, robin, whinchat, blackbird, magpie and carrion crow.

One of the above species as well as being "present" on site probably has a nest site adjacent to the Gillerthwaite study plot (breeding status A) – robin.

Although not recorded on site the following species probably had nest sites adjacent to the Gillerthwaite Fields study plot (breeding status A) – mistle thrush, garden warbler, and chiffchaff.

3. River Liza - A total of 25 species were recorded during the survey (birds over flying the plot in “status F” are not included in the analysis) – greylag goose, goosander, pheasant, grey heron, common sandpiper, wood pigeon, green woodpecker, great spotted woodpecker, meadow pipit, wren, dunnock, robin, song thrush, mistle thrush, garden warbler, chiffchaff, willow warbler, goldcrest, long-tailed tit, coal tit, great tit, jay, carrion crow, chaffinch and siskin.

i. 9 species exhibited “territorial” behaviour on site (breeding status T) - green woodpecker, meadow pipit, wren, robin, song thrush, garden warbler, willow warbler, coal tit and chaffinch.

The species listed above have the following BoCC designations:

- Red list – song thrush
- Amber list – green woodpecker, meadow pipit and willow warbler.
- Green list – wren, robin, garden warbler, coal tit and chaffinch.

ii. 14 species were “present” on site (breeding status P) – greylag goose, goosander, pheasant, grey heron, common sandpiper, wood pigeon, great spotted woodpecker, dunnock, goldcrest, long-tailed tit, great tit, jay, carrion crow and siskin.

The species listed above have the following BoCC designations:

- Amber list – dunnock and goldcrest.
- Green list – greylag goose (naturalized population), goosander, pheasant, grey heron, common sandpiper, wood pigeon, great spotted woodpecker, long-tailed tit, great tit, jay, carrion crow and siskin.

Although not recorded on site the following species probably had nest sites adjacent to the Gillerthwaite Fields study plot (breeding status A) – mistle thrush and chiffchaff.

## Territories
## Table 3.

| **Table 3: Wild Ennerdale valley bottom grazing study 2008<br>Species identified as holding territories in sub plots Char Dub, Gillerthwaite Fields and River Liza in the 2008 breeding season.** | | | | |
|---|---|---|---|---|
| Key to observed behaviour: T = Territorial | | | | |
| Species | Conservation Designation* | Char Dub | Gillerthwaite Fields | River Liza |
| Green Woodpecker | Amber | | T | T |
| Great Spotted Woodpecker | Green | | T | |
| Meadow Pipit | Amber | T | T | T |
| Pied Wagtail | Green | T | T | |
| Wren | Green | | | T |
| Robin | Green | | | T |
| Song Thrush | Red | | | T |
| Garden Warbler | Green | | | T |
| Willow Warbler | Amber | | | T |
| Coal Tit | Green | | | T |
| Blue Tit | Green | | T | |
| Great Tit | Green | | T | |
| Chaffinch | Green | | T | T |
| TOTAL = 13 | Green = 9<br>Amber = 3<br>Red = 1 | Total = 2 | Total = 7 | Total = 9 |

**Table 4.**

| **Table 4: Wild Ennerdale valley bottom grazing study 2008<br>Total number of territories for each species as identified by species maps in sub plots Char Dub, Gillerthwaite Fields and River Liza in the 2008 breeding season.** | | | | |
|---|---|---|---|---|
| Key to observed behaviour: T = Territorial | | | | |
| Species | Conservation Designation* | Char Dub | Gillerthwaite Fields | River Liza |
| Green Woodpecker | Amber | | 1 | 1 |
| Great Spotted Woodpecker | Green | | 1 | |
| Meadow Pipit | Amber | 3 | 1 | 1 |
| Pied Wagtail | Green | 2 | 3 | |
| Wren | Green | | | 8 |
| Robin | Green | | | 4 |
| Song Thrush | Red | | | 1 |
| Garden Warbler | Green | | | 2 |
| Willow Warbler | Amber | | | 15 |
| Coal Tit | Green | | | 1 |
| Blue Tit | Green | | 2 | |
| Great Tit | Green | | 1 | |
| Chaffinch | Green | | 1 | 5 |
| TOTAL = 13 | Green = 9<br>Amber = 3<br>Red = 1 | Total for all territories = 5 | Total for all territories = 10 | Total for all territories = 38 |

**Key Findings**

- 13 species were identified as holding territories in the study area (table 4).
- Song thrush was the only red list BoCC species identified as holding a territory in the study area.
- There were 3 amber list BoCC species identified as holding territories in the study area – green woodpecker, meadow pipit and willow warbler.
- There were 7 green list BoCC species identified as holding territories in the study area - great spotted woodpecker, pied wagtail, wren, robin, garden warbler, coal tit, blue tit, great tit and chaffinch
- Char Dub held 2 different territorial species with a combined total of 5 territories.
- Gillerthwaite Fields has 7 different territorial species with a combined total of 10 territories.
- River Liza is the largest of the study plots with a mosaic of habitat types, 9 different territorial species with a combined total of 38 territories were recorded making it the sub plot with the most species diversity and containing more than twice as many pairs of birds than the other two plots put together.
- Meadow pipit was the only species which held breeding territories across all 3 sub plots.
- Willow warbler was the most abundant species with 15 territories identified in the River Liza sub-plot.

**Green woodpecker study case.**

Of the 4 red/amber list species holding territories in the study area, the amber listed green woodpecker is worthy of special mention as it is by far the most important species breeding and foraging in the study area, its presence here is primarily due to the healthy ant population in the River Liza sub-plot.

During the early 19th century Northumberland was the northern limit for this species, with the first nest in Lakeland not discovered until 1945. Large scale colonization of suitable valley bottoms took place in Lakeland through the 1950's and 1960's.

The first mention of green woodpecker I could find in Ennerdale comes from *The Birds Of The Lake Counties* (Stokoe, 1962) *"The upper Ennerdale valley was occupied in spring 1961 when a pair nested at Gillerthwaite (P.A. Banks)".*

A Cumbria Bird Club survey in 1994-95 showed a decline of this species in the north and east of the county. "*Commercial afforestation was thought to have been partly to blame with some suitable habitat having been lost to conifers which are of little value to the green woodpecker. Although a few birds were still present in commercial forestry in areas such as Ennerdale and Whinlatter, they are thought to be nesting in nearby deciduous stands* (Atkins & Callion 1997).

*The Breeding Birds of Cumbria - A tetrad atlas 1997-2002* (Stott et al) recorded no green woodpecker at all in the Gillerthwaite 10km sq (NY11). This was somewhat surprising given forty years of occupancy in the valley. This decline was evident in other parts of its western range in Cumbria and particularly marked in the north east of the county. The atlas tentatively suggests an estimate of 250-300 pairs in the county.

Green woodpecker is unique amongst British woodpeckers in that it feeds mainly on the ground specializing in adult and pupal ants. It is known to be, “Largely a ground feeder, sensitive to changes in close grazing resulting from increases or reductions in stocks of sheep and in rabbit populations, affecting extent of turf short enough to gain greater exposure to sun and consequently support larger and more varied ant populations. New afforestation can have similar effects (Sharrock1976). Shows consistent avoidance of close stands of conifers, although sometimes tolerates larches and open pinewood where there is leafy understorey and abundance of ants; occurs also in mixed woodlands.” (‘Handbook of the Birds of Europe the Middle East and North Africa – The Birds of the Western Palearctic’ Chief Editor Stanley Cramp – Oxford University Press 1985)

The strong link between green woodpeckers and ants may be a factor in their decline within the county. There has been a significant loss – 65% between 1940 and 1970 (NCC 1987) -- of unimproved lowland grassland, the main habitat of the Yellow Meadow Ant which forms a substantial part of the bird’s diet.

Presently green woodpecker has a patchy distribution in western Lakeland with the species scarce in many valleys. Its main stronghold is in the south of the county. In recent years the author has noted a particularly healthy green woodpecker population in the vicinity of Gillerthwaite with several territories converging on the valley bottom.

During the course of this survey important “open glade” feeding areas containing substantial concentrations of ant hills were located in amongst the dense scrub in the River Liza sub-plot. This area was previously ungrazed and is now grazed by the small herd of Galloway cattle. Only careful monitoring will determine whether these beasts will prove beneficial or detrimental for foraging green woodpecker. Whether or not cattle grazing results in opening up and breaking down the scrub and thus letting in more sun to create optimal conditions for further colonization by ant species is balanced out by the impact of the trampling cattle and destruction of these delicate structures remains to be seen.

## Recommendations

### Recommendation 1
**Repeat the bird survey every 3 to 5 years.**
Repeat survey will show changes in breeding bird usage of the survey area. This can be correlated with the management of the area and changes in vegetation composition and structure during the past survey period.

### Recommendation 2
**Consider adopting the 8-10 visit survey once during a 15 year period.**
The 8 to 10 visit approach as used in the original BTO Common Bird Census (CBC) is spread over a longer time period (end of March to mid July) and is likely to identify more “territorial clusters” than the “amended” 3 visit version used in the Wild Ennerdale survey, which has fewer visits and is spread over a shorter time period (end April to mid June). However the three visit survey does provide an indice of abundance for the

territorial species. Providing the same methodology is used on a regular basis (every 3 to 5 years) it should provide a cost effective and readily repeatable system to monitor population trends in this part of the valley.

It is therefore recommended that the 8-10 visit approach is adopted once in a 15 year recording period. This would provide a full baseline and allow direct comparison between the full and shortened methodology

**Recommendation 3**
**Conduct further research on anthills in the valley bottom area**
The presence of green woodpeckers and their food source (ants) is identified in this report of being of local significance. It is therefore proposed to identify and plot anthills in the study area (Liza and Gillerthwaite subplots) and monitor the condition of these "open glade" colonies. Additionally select some dense scrubby gorse areas as plots, and monitor them to see whether cattle grazing creates optimal conditions for colonization by anthills. It is possible that a university student might take on this work.

**Bibliography and further reading:**

Atkins and Callion – Cumbria Bird Club - Woodpecker and Nuthatch Survey 1994-95

Cramp (Chief Editor) – Oxford University Press 1985 - Handbook of the Birds of Europe the Middle East and North Africa – The Birds of the Western Palearctic

Stokoe – Carlisle Natural History Society 1962 - The Birds Of The Lake Counties

Stott et al (Eds.) – Cumbria Bird Club 2002 – The Breeding Birds of Cumbria – A tetrad atlas 1997-2001

"The Population Status of Birds in the UK – Birds of conservation concern: 2002-2007"
www.bto.org

"Common birds Census" (CBC)
www.bto.org