

Wildlife of the Nidd Gorge

Contributors:

Foreword: Michael Clegg Introduction: Derrick Mellard Woodland and Plants: Til Mellard

Birds: Mike Brown Insects: June Atkinson Animals: Ernest Kemp

Photographs and map: Jim Counter Artwork and production: Ron Deaton

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Foreword

by Michael Clegg

The rivers of Yorkshire are a varied lot, from the industrialised waters of South and West Yorkshire to the relatively intact waters of the Esk and the Derwent in the north and east, they show how the hand of man has treated them over the last three centuries or so. As a naturalist it is quite often the effects that human activity have produced that interest me but, at the same time, I find the greatest pleasure in the places where wildlife has resisted or recovered from the effects of exploitation.

The Nidd is such a river; not too big, flowing through varied habitats, its upper courses gently treated by human industry along its banks, it has weathered the centuries well. Between Bilton and Knaresborough the gorge it has carved for itself, impressive I think compared to the size of the present day river, offers the best of at least two worlds — the river and its banks.

The Nidd Gorge is a pleasant place

— a beauty spot even, though that is not

a term I like, a place to wander about in, an area for a variety of refreshing walks at any time of year. But it is a lot more than that. It offers a subtle blend of habitat conditions, man made and natural, and a chance for the visitor to appreciate the marvellous mosaic of conditions and species of plants and animals which exists along the banks of the Nidd.

Take the river itself - still a trout water at this stage of its course. In it and by it you will find virtually all the species you might reasonably expect and perhaps a few more besides. Among the birds, the trout stream trio of Dipper, Grey Wagtail and Common Sandpiper, plus Kingfisher as a bonus. Among the invertebrates are all the stoneflies, caddises and mayflies that you might expect, plus the freshwater Crayfish. This little inland lobster-type crustacean was for me the gem of the Nidd Gorge because Crayfishes are the super indicator of unpolluted water and, sadly, are now gone from many

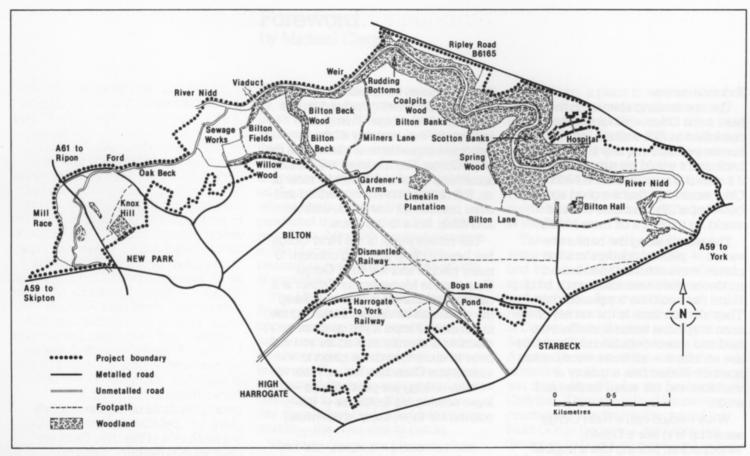
Yorkshire rivers.

The one missing element in the Nidd here is the Otter — it looks as though one killed in 1951 was the last. But, who knows, perhaps one day it may come back and it would be nice to think that if it ever did re-colonise the Nidd the Otter would still find it a good spot to be — hopefully next time round it would be treated a bit more kindly.

The woods along the banks are varied — planted conifers in some places, more natural broad-leaved mixtures elsewhere and even a bit of Hazel that could be coppiced again. They all contribute to the variety of the area in species terms and affect the bird and insect populations. The birds are excellent — all three woodpecker species, Nuthatches, a galaxy of warblers and tits, small finches and so on.

What I would call a Nidd Gorge sensation is to see a Green Woodpecker, looking like a tropical escapee bounding out of the woods to feed on ants on the ground in a fragment of ancient grassland on the shoulder of the gorge. That sort of sighting for me, contains all the important ingredients of places like the Nidd Gorge. The meadow itself is like something out of childhood for most of us, full of wild flowers, butterflies and other insects, not unvaried, uniform and drab, but a living place.

The conservation of the Nidd Gorge has been a deep and long concern to many people and the Nidd Gorge Countryside Management Project is a careful and caring response to keep the place and its visitors, including me, in harmony. I hope if you go there to discover and enjoy its wildlife you will bear in mind the advice given to visitors to a Canadian nature reserve—'take nothing but photographs—leave nothing but footprints—kill nothing but time'. Enjoy yourselves.



The Nidd Gorge Countryside Management Project area . . . principal features.

Introduction

The Nidd Gorge Countryside
Management Project was initiated in
1982 by Harrogate Borough Council
with the encouragement and support
of the Countryside Commission.
A consultancy study of the northern
fringe of Harrogate, defined as Nidd
Gorge and Bilton Fields and stretching
from Skipton Road to Bond End,
Knaresborough, was commissioned
and subsequently presented for
public appraisal.

The original concepts behind the Project were:-

- (a) To conserve and enhance the landscape and wildlife of the area;
- (b) to protect productive land use; and
- (c) to provide recreational facilities appropriate to the landscape and surrounding area.

The consultant's report assessed the area as a 'landscape of exceptional beauty': a combination of the broad river with its rapids, the cliffs and bluffs, the varied woodland and the occasional open areas.

Harrogate is built on an upland area of moderate geological relief, varying in elevation between 75 and 140 metres above ordnance datum. This upland. over which are generally thin superficial geological deposits, is transected by the Nidd which has cut a gorge more than 45 metres deep just west of Knaresborough. In geological terms the middle stretch of the gorge is described as 'landslip'. The Oak Beck. which rises at the top of Haverah Park, comes down by Beckwithshaw and Birk Crag and enters the Nidd a little to the north of Bilton. There are outliers of formations derived from Permian rocks: red-brown, calcareous or silty mudstone, and magnesian limestone to the west of Knaresborough. Between the river and Willow Wood is an area of sandstone and gritstone derived from carboniferous rocks, with geological drifts of clays and sandy clays with pebbles and boulders. On the south side of the river there are river terrace deposits of sands.

Because the Nidd Gorge is not only attractive scenically, but also offers much of wildlife interest, the direction of the Project is very much on ensuring that those who benefit from the improved opportunities for outdoor recreation and public access are aware of the needs of nature conservation in the area.

Members of Harrogate and District Naturalists' Society have written this booklet as a contribution to increasing public awareness and concern for the natural environment of the Nidd Gorge and Bilton Fields area.

The natural environment varies in its ability to withstand visitor pressures: trampling feet can destroy vegetation cover, leaving barren and unsightly expanses of hard-packed earth or mud; many attractive flowers and plants cannot stand repeated picking or trampling underfoot; birds are easily disturbed during the breeding season. Most activities that are damaging to wildlife are unintentional

and one aim of this booklet is to draw attention to the need for, as Michael Clegg puts it: 'a *careful* and *caring* response to keep the place and its visitors . . . in harmony'. The future of the Nidd Gorge and its wildlife depends on all of us.

The following chapters will not tell you precisely where to see a particular plant or creature. Rather they are written to encourage the interested, caring observer to appreciate the diversity of wildlife known to be around, to look for the variety of ecological niches into which wildlife adapts itself and to connect the wildlife with the landscape and land use. Knowing what to look for, which season of appearance, which associations between plants and creatures, contributes so much to the enjoyment of walking in the countryside, as well as to the identification of species.

A habitat is the natural home of a plant or animal and most of the notes

which follow in the booklet recognise the variety of habitats which have formed in the Nidd Gorge countryside. There is arable land with those wild flowers and grasses which survive crop management, usually along headrows and field edges. Most of the meadow or pasture land is permanent grass, and the flora varies with the grass management: grazed or hay, drained or not, fertilised or not. Hedges form the boundaries of woodland or enclose fields and, with copses, are about the only sites for woody species on highly farmed land. They carry a range of wild plants on the accompanying grass verge or hedge bottom and provide support for climbing species. The berries, fruits, and nuts of hedgerow Hawthorn, Hazel, Blackthorn and Blackberry are a food source for many birds and animals.

The woodlands of the Gorge present another range of habitats, changing according to the predominance of broad-leaved or coniferous trees which determines the degree of shade and the kind of leaf litter and thereby influences the shrub and ground cover layers. Other habitats forming part of the whole ecological make-up of the Gorge district include what some may see as waste ground: often characterised by coarse grasses and Rosebay Willow-herb, plants favoured by some moths and butterflies for part of their life-cycle. The old railway track, now a much-used footpath and bare down the centre of the slagballast, has a great diversity of plant life alongside. Gardens bordering the area also provide sites for foraging wild creatures and old walls carry plants, lichens and harbourage for such as spiders and woodlice.

All of these broadly-described habitats support some community of wildlife in association with the particular combination of food sources, shelter and environmental conditions which favours the various species

forming the community.

Walkers, anglers and nature lovers will all benefit from the improved opportunities for outdoor recreation and public access created by the Nidd Gorge Countryside Project. Continued enjoyment of the countryside requires understanding of its wildlife and work.

PLEASE: keep to the footpaths, gates, stiles and footbridges provided; keep dogs under control; have a care for the plants and all creatures great and small, and *please* leave no litter.

The Harrogate Naturalists' Society has records for the Nidd Gorge area of over 250 species of wild plants, 250 species of moth, 15 of butterflies, 127 species of birds, 91 species of fungi and 34 of mammals, amphibian and reptile species. Records are set out in the Annual Reports of the Society, available for reference in the Public Library.

Without doubt there are many other species in all Orders yet to be seen

and identified, and there is endless scope for the interested observer in the future, monitoring the changes which will follow as the Project area is managed in the interests of the landscape, wildlife and visitor. The Society is always pleased to hear about possible additions to the records or changes which affect the diversity of wildlife.

Woodland

'Some 60% of the woodlands are broad-leaved and 40% coniferous. Effective commercial management is limited as a result of the small size of individual holdings and the difficulties of access to, and working within the Gorge.'

Resource Consultants Survey Report
— March 1983

Large scale tree planting developed in the British Isles in the 18th and 19th centuries. Much of this, and subsequent planting, especially by the Forestry Commission, was directed towards economic resources, and much of our woodland is as artificial as a field of wheat in terms of wildlife.

A woodland is a manifestation of matter and energy. It survives on cycling matter powered by the energy of sunlight. This translates by considering the woodland as a basic source of food through its plant life. Plant roots and storage organs will feed Water Voles, bark and wood will feed deer, wood-boring insects and

Rabbits. The soft green matter of leaves and stems is food to a host of caterpillars and rodents.

Through the adaptions over time, the native trees and plants have come to support a much greater number of type of creature. The Sycamore. introduced in the Middle Ages. frequently has leaves marked with Tar-Spot fungus and Grev Squirrels are known to feed on its bark, yet it supports nothing like the total amount of living organisms of an English Oak. The nectar and pollen of the flowering parts support many of our butterflies and moths as well as bees, solitary and communal. The berries, nuts and seeds of the mature plant are vital to the well-being of squirrels, mice, birds and insects of various kinds, if no longer to mankind. Fallen leaves. branches and twigs, dead grasses and herbs provide nesting material and shelter for many animals, especially through the winter months, when survival is critical. They also constitute

the food source of the fungi, whose living mycelia, or threads, digest and thereby rot away this material, and from that nourishment produce the colourful and often eye-catching fruiting bodies we generally call toadstools.

The cycle is completed in the soil, its vastly complex structure derived from the rock by a multitude of surface agencies. Here another world of microorganisms exercise their complicated chemistry on the rotting vegetation to reduce it to humus, which, along with mineral salts ultimately derived from the rocks, and with water, ultimately derived from rainfall, constitute the food source of germinating seeds, underground stems, bulbs, corms and root systems.

The complexity of soil formation leads to variation not only between different woods, but within a single woodland, given sufficient age. Acid sandy soil is associated with birch and pine; wet soils with alder and willow;



Broad-leaved woodland . . . canopy of summer shade.

the Pedunculate Oak with neutral loams; Sessile Oak with thin somewhat acid soils over hard rock. Beech and Oak are associated with, but not confined to, alkaline soils. These associations do not always hold good in man-made woods.

In a natural or semi-natural woodland, we may expect to recognise three layers of vegetation. The dominant mature trees constitute the upper layer, over a shrub layer, shading the ground layer of herbs. The shrub layer is an important constituent for wildlife, as it includes the Hazel with its nut crop; the Hawthorn, Wild and Bird Cherries, Blackthorn/Sloe, Elder and Guelder Rose with their berries, and the fruit supply of the roses and Brambles. Bramble and Elderberries are favoured foods of Wood Mice.

The ground flora must be adapted to shade and able to utilise what light they get efficiently, a response imposed by the need for sunlight as the source of the cycling energy. The woodland habitat with its canopy of deep summer shade has evolved some of our most appreciated flowers. These bloom early to avoid the deep shade: they develop rich coloured or bright white flowers to lure the early insects such as bumblebees. Sadly we have seen over the last 30 years great losses of our woodland, so we had better cherish the Bluebells of the Gorge.

Bilton Beck and Rudding Bottoms
Woods include English Oak, Beech,
Common Ash, Wych Elm, Common
Alder, Rowan, Silver Birch, Downy
Birch, Sycamore, Scots Pine, European
Larch, Norway Spruce and Wild
Cherry. In the shrub layer are
Common Hazel, Hawthorn, Elder,
Holly, Ivy, Dog Rose, Blackberry, Goat
and Grey Willows.

Coalpits and Spring Wood appear to be long established woodlands with a varied flora related to the boundary between magnesian limestone and millstone grit.

Plants

The varied woodland and occasional open areas of the Nidd Gorge combine with the river, the cliffs and bluffs, to form a landscape of great beauty. Wide views from the upper slopes take in the many shades of green of the indigenous and the planted stands of trees.

The wild plants which have become adapted to a habitat formed by a combination of various degrees of shade, the exposure of rock outcrops, and the changes in soil type, form an association which is essentially different from that found in open fields or along roadside hedges.

So, in the very shaded and damp places, we find ferns, wood-rushes, liverworts and a range of mosses forming the principal vegetation. The flushes of water down the slopes give rise to boggy areas lower down and here we find Marsh-marigold, Golden Saxifrage, Soft Rush and water cresses. These wet patches tend to develop where the river bank is steep and

high, but where it opens out onto gentler, more rounded slopes and the trees are more widely spread and likely to be broad-leaved, then the ground covering is more grassy, with Bramble, Bracken and Bluebells in abundance. In this habitat with broken shade we can find Sanicle, Wood Speedwell, Enchanter's Nightshade, Wood Sorrel and Wood Stitchwort.

Plant populations, as with human ones, tend to benefit in the long run from the introduction of 'aliens and adventives' which can adapt themselves to being at home in the new environment. Here in the Gorge, most closely associated with the river bank itself, you will be aware of three pink-flowered plants, finding their way to success or failure: the starry-flowered Pink Purslane, the handsome Rosebay Willow-herb and the showy Indian Balsam. These, along with the Dame's-violet found with them, are all initially



Indian Balsam . . . naturalised 'foreigner'.



garden escapes. Already indigenous insects have been observed visiting the balsam, introduced from the western Himalaya in 1839, and escaping to stream banks by 1855. Push amongst it at seeding time and you come 'under fire' from the snapping capsules. A colloquial name thus acquired is 'Jumping Jack'; its flower shape has given rise to names like 'Nuns' and 'Policeman's Helmet'.

On the water edge we find the Unbranched Bur-reed, Marsh Willowherb, Yellow Loosestrife, Water Forget-me-not, Monkeyflower and the Alder trees with their purple buds and fascinating cones.

Where the river has formed a sandy 'bay', the vegetation resembles a heath, with a sward of bent and fescue grasses dotted with Hawkweeds, Hawkbits, Tormentil, Harebell and Smooth Cat's-ear, and Gorse on the

rising ground. The presence of Pepper Saxifrage in the turf indicates a change to limestone outcrop, and on the alkaline sand of the river bank can be found the Small-leaved Lime, a relatively rare native tree thought to be common in the original 'Wildwood' of the lowlands in our Island after the last glacial period.

Throughout this is the enjoyment of seasonal variation, from discovering the spring pleasures of the Lesser Celandine, the Wood Anemone and the Barren Strawberry, to the shapes and colours of the many fungi found in Autumn, such as the Brown Roll-rim, the Candle-snuff Fungus, the Lawyer's Wig and the little Snowy Wax Cap in the grass.

The hinterland to the Gorge proper is an area of farmed land in various productive uses, in some cases bounded by interesting hedges and old walls. The hedges of Milners Lane make for an interesting exercise of a research finding which postulates that

Harebells . . . dry, grassy places, July to September.

every hedge species in 30 metres length of the hedge represents a century in the lifetime of such a hedge.

For looking into the mosses and the lichens of the old walls a hand lens is essential, though sadly these gritstones do not carry the same rich variety of lichens as is found on the limestone of the Dales.

Moving inland again brings us to the disused railway track. Running north-eastwards from Starbeck and almost bounding the Gorge Countryside area on its southern side. Here more plant diversity and associations can extend botanical interest. Here can be found Campions, Herb-Robert, trefoils, vetches and clovers, St. John's-wort, Goat's-beard and Giant Bellflower amongst some 150 species so far recorded.

A primary aim of management for wildlife is to encourage diversity.



A diversity of tree species in a wood tends to reflect in a diversity of species on the woodland floor. Broad-leaved or foliose trees tend to yield a neutral humus layer, coniferous trees an acid one. Bramble. Bracken and Bluebells with an acid woodland soil was probably the earliest ecological association to be recognised. Here in the Gorge woodlands we shall be able to observe the effects of a change from stands of Oak with Larch, to mixed woodland. Norman-French gives us coppice or copse as a 'name of a small wood with coppice management'; the old English equivalent is 'spring', so the stretch of the Gorge wood with that name may have very early origins. The ancient art of coppicing supplied our forbears with poles and baskets and created an open, diverse copse useful to many forms of wildlife, birds. flowers and small mammals amongst them.

Diversity includes the slow-growing, non-flowering plants, and in the Gorge there are ferns — still not recovered from Victorian collecting mania — mosses, liverworts and lichens. There are also the less showy, often wind-pollinated flowering plants — the grasses, sedges and rushes peculiar to woodlands.

These notes give a brief indication of the kinds of habitat where the various plant associations may be expected when walking through the Nidd Gorge. Most wild creatures don't wait to be looked at, but plants remain, and echoing Michael Clegg's advice in the Foreword, we should remember that the habitats of some plants are very fragile and could easily be destroyed by trampling feet.



Bluebells . . . blue carpet for woodland floor.

Birds

The birds of the Nidd Gorge can be appreciated at any time of the year but it seems practical and sensible to give an account of those species most likely to be encountered in spring and early summer, and those in the autumn and winter period. The following information is primarily intended to help the less experienced birdwatcher, and no attempt has been made to present a comprehensive list of birds occurring in the area.

Enjoyment of any birdwatching outing can be improved by a little research and pre-planning. Habitat, time of year, and geographical location are three important factors in any branch of natural history. We therefore take into consideration the type of woodland, whether we are visiting during the breeding season or winter months, and finally in which part of the country the area under study is located. The Nidd Gorge can be



Robin . . . singer in all seasons.



visualised as a river valley, steep in parts and heavily wooded for the most part. Broad-leaved and coniferous trees are to be found occurring together in various plantations distributed along the river course. The variety of species of birds to be found in the woodland and surrounding agricultural land will be described in the following two sections.

Spring and Summer

Many of our woodland birds are summer migrants visiting Northern Europe to breed, and spending the winter in Africa. Birds start to arrive in late March; by mid April Willow Warblers are in song, and towards the end of May Chiffchaff, Wood Warbler and Redstart can be heard in the deciduous woods. Resident birds, for example Blackbird, Wren and Robin, add to the profusion of sounds to be

Young Song Thrush . . . woodland bird, garden visitor.

appreciated, especially in the early morning.

A suitable route through the Gorge during spring would be to take the old railway line path from Bilton Lane (see map on page 6) for about a quarter of a mile, and bear right at the edge of Bilton Beck as it drops down in to Bilton Beck Wood. The river bank is then followed towards Knaresborough, through Rudding Bottoms as far as the edge of Coalpits Wood. It would then be advisable to retrace one's steps back as far as the bottom of Milners Lane to return to Bilton Lane near the Gardener's Arms public house.

Whilst walking the old railway track, watch for Swallows flying backwards and forwards a few yards ahead of your progress. These birds can be easily distinguished from the closely related House Martin by the deeply forked tail with streamers and absence of a white patch on the rump. In the adjoining bushes and rough pasture one should hear the scratchy song of

one or two Whitethroats as they perform their brief display flight.

On reaching the edge of Bilton Beck. leave the line of the old railway and follow the path, having the wood on your right and the open field on your left. The woods here are deciduous mixed with mature conifers. Bird song is usually very obvious here, and an early morning walk can be very rewarding. The thin, delicate song of Goldcrest can be heard along with the various calls of Great Tit and occasional Coal Tit. Chaffinch is common here and Skylarks will be heard singing over the fields to your left. Nearer the river the wood becomes more predominantly deciduous and here can be heard Blackbird and Song Thrush, as well as Robin, and of course. Wren.

One of the most familiar sounds of British woodland during summer is the rather sad song of the Willow Warbler, a string of plaintive descending notes. This bird will be more obvious in the areas supporting Oak, Birch and Alder. The closely related Chiffchaff is by no means as common as the Willow Warbler in northern England but you should certainly hear its monotonous 'chiff-chaff-chaff-chiff' song during any average walk. The third member of this family of small, greenish warblers is the Wood Warbler. Its distinctive song is difficult to describe but it is easily heard and carried over considerable distances.

It is possible to follow the river bank continuously for most of the footpath as far as Coalpits Wood, and this offers an excellent opportunity to keep an eye out for two birds dependent on rivers and streams. The Kingfisher frequents the Nidd and the best chance of seeing this spectacular species is to watch for it flying low and straight from one vantage point to another. It is also worth stopping and checking where the water is fast running and shallow, as hopefully the occasional Dipper will

be seen. This remarkable bird searches for the larvae of aquatic insects by swimming over the rocks in fast flowing stretches of the river.

To reach the boundary of Coalpits Wood one has to cross an open area of old pasture, and from here there is the best chance of seeing Nuthatch, Treecreeper and Great Spotted Woodpecker. This flowery meadowland is also partly covered with Gorse and is therefore a suitable location to check for Yellowhammer and Dunnock.

The return walk along Milners Lane is an opportunity to watch for several hedgerow species but is probably more worthy of attention during the winter months, and the remaining notes offer suggestions for observations on a walk later in the year.

Autumn and Winter

During October, birds from northern Europe and Scandinavia flow into the British Isles and this influx continues throughout the winter, often dramatically increased by severe weather on the Continent. Our woods and fields become feeding grounds for thrushes, finches, tits and buntings. Needless to say winter walks become usually very rewarding for the birdwatcher.

Join Milners Lane near the Gardener's Arms (see map on page 6) and follow the path which eventually reaches the river bank at the site of the old ford. It is very much a matter of personal preference whether one follows the river path eastwards towards Knaresborough, or walks upstream, but conditions underfoot may well influence the decision.

Winter birds tend to be found in small roving parties or loose flocks. On the way along Milners Lane watch for Redwing and Fieldfare in the fields, Chaffinches and tits in the hedges. Often woodland can seem very quiet at this time of year, but patience will be rewarded by seeing occasional parties of hungry birds searching for seeds and insects. Finch flocks are usually made up of Chaffinch and Redpolls, but in some years Bramblings arrive in substantial numbers from Scandinavia. Siskins are also fairly regularly seen at this time of the year.

Long-tailed Tits move through woodland in parties and Great. Blue and Coal Tits can all be seen and heard throughout the winter months. Robin and Wren continue to sing outside of the breeding season and the gentle song of the Robin is regularly heard, even on a miserable day. Great Spotted and Lesser Spotted Woodpeckers are resident birds, as is the Nuthatch and these species are often easier to locate in the winter. Returning along Milners Lane, further attention should be paid to the farmland on either side, for many species use the open fields and Rook, Crow, Magpie and Starling are all very likely to be seen here.

The woodland on the north bank of the Nidd can be reached via a car park just west of Scotton Banks Hospital. The area is well worth visiting both in summer and winter. Although the expected species will be very much as already identified above, there is always the chance of sighting something not previously encountered on visits to the Bilton side of the valley.



Great Tit . . . black shirt front, yellow waistcoat.

Insects

The closure of many railway lines has created a habitat for butterflies, moths and other insect Orders, as the plants essential for their survival have been allowed to flourish.

Butterflies

This is a relatively new habitat, but the disused railway tracks are as good an area as anywhere in the vicinity of the Nidd Gorge to see butterflies. Fifteen species have been recorded here in recent years.

On mild, sunny days in March and April, Peacock and Small Tortoiseshell, emerging from hibernation, may be tempted to fly. They can be found feeding on Goat — locally called 'Pussy' — Willow blossom, to be found along the old track from Starbeck to Bilton.

During May, Orange Tip, Greenveined White, Small White and Large White all occur and, by the last week of the month, a few first brood Wall, which as the name suggests, basks on walls and pathways, never sitting for very long.

Small Heath, Small Copper, Common Blue and Large Skipper put in an appearance in June and should be present in sufficient numbers to be readily located. Always remembering that there can be 'early' or 'late' seasons, which can cause some variation in the emergence dates.

The high summer brings Meadow Brown and Small Skipper, together with the conspicuous Small Tortoiseshell and Peacock, followed by a second brood of Wall. The latter occur in greater numbers than the first brood and the species is on the increase in the area.

In favourable seasons the Red Admiral and Painted Lady, both of which are migrants, may reach here, occurring in considerable numbers.

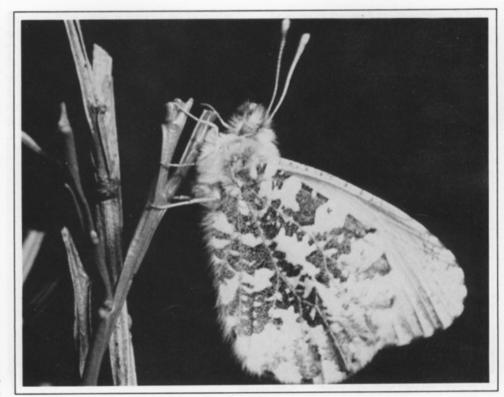
In order to maintain the habitat for butterflies, it is essential that scrub should not be allowed to develop to such an extent that it crowds or shades out the food plants and nectar-bearing flowers which are so necessary for the butterfly population. This is beginning to happen in parts of the Gorge area and the butterflies are less numerous. But walk along Milners Lane and there will be the Wall, sitting ahead of you on the path, then flying on and resting again. Here, with the old hedges and farmed land on either side, you will find the Whites, Peacock and Small Tortoiseshell. The last two have hairy black caterpillars that feed on Common Nettle, a woodland plant that succeeds on ground made more fertile by previous farm or woodman activities.

North of the river, the open rides at Scotton Banks support a reasonable range of species including Small Skipper, Wall, Meadow Brown, Peacock and Small Tortoiseshell, together with the common Whites, in August. In 1979, after an absence from the area of 25 years, White-letter

Hairstreak was recorded here and continues to thrive, though the demise of the Elms in the area may lead to its local extinction. The wooded parts of the Gorge are not generally rich in diversity of butterflies, as the paths are narrow and there are few clearings or sunlit glades. But it is not impossible that a colony of Purple Hairstreaks or the Holly Blue could be lurking in the topmost canopy of the Oak trees. Ringlet too is another species which may turn up, having increased its range locally over the last few years.

Moths

Although the number of species occurring in the area is more than for butterflies, they are less evident because the majority are nocturnal. For recording purposes, two moth traps have been operated in the vicinity of the Nidd Gorge for several



Orange Tip Butterfly . . . early visitor to lanes, damp meadows, wood outskirts.



years and approximately 250 species have been identified over that period. These include six species of Hawk Moth — Poplar, Eyed, Large Elephant, Small Elephant, Lime (first recorded in 1985) and the larva of the Humming-bird Hawk Moth. The larvae of the Large Elephant Hawk can be found on the willow-herbs in July and August.

These many moth species are encouraged by the variety of habitats, from the rank grasses to the mature deciduous trees. The coniferous tree stands are generally less diverse but do hold a few specific moths. The Pine Beauty, the larvae of which can cause considerable defoliation, may be seen in spring, resting on the bark of pine trees. Bordered White can sometimes be disturbed from low vegetation in May and June.

Mature Hawthorns provide food for the larvae of several species and the

Elephant Hawk Moth . . . night flying frequenter of Rosebay Willow-herb.

black, red and white caterpillars of the Gold-tail Moth can be very numerous in May and June. The caterpillars of the Garden Tiger Moth, often called 'woolly bear', can be seen during the summer in low vegetation or crossing the footpaths. The day-flying Latticed Heath can be observed in the viaduct area in July and August and, also along the old railway track, the conspicuous black and red Burnet Moth may be found feeding on Knapweed in July. The paper-like pupa cases from which these moths have emerged are to be found on the stems of the tall grasses. Woodland ground dwellers offer scope for the interested observer, and of these. beetles - 'sheath-winged' insects are perhaps the most readily seen. The commonest seen is the Violet Ground-beetle, fast moving, flightless, night hunters. Soldier beetles can be seen in early summer, feeding on softbodied insects found on the large flower heads of Ragwort and Cow

Parsley. The orange-brown wing cases and black rear-end signal 'uneatable' to birds. Other beetle species will be found in their daytime resting places under decaying logs on the ground, sharing this place with snails, slugs, centipedes, woodlice and small worms.

Leaf galls caused by insects will be seen on several plants in the Gorge. On Blackthorn!/Sloe hedge bushes in summer — caused by a mite; and on Oak, as the reddish spangle gall, caused by a gall wasp which causes a second type of gall on Oak catkins in spring as part of its life-cycle.



'Woolly Bear' . . . caterpillar of the Garden Tiger Moth.

Animals

Most people — including those with an interest in natural history — express considerable surprise when they learn that over 30 species of wild animal currently reside in or near the Nidd Gorge.

But mammals, amphibians and reptiles are notoriously elusive, and visitors to the Gorge should not be too disappointed if many of these shy and secretive creatures remain unseen.

The two largest mammalian residents are both relative newcomers to the area. Fallow Deer first arrived in the Gorge over 30 years ago and today's small herd are descendants of animals which escaped from the grounds of nearby Ripley castle. The somewhat smaller Roe Deer has more recently extended its range throughout the north of England and colonised suitable woodland in the Harrogate district during the late '60s and early '70s. Although both species are particularly adept at keeping out of sight they cannot avoid leaving

telltale signs of their presence and characteristic footprints — known as 'slots' — can often be found on soft ground and along muddy tracks.

The nocturnal Badger is the largest of five carnivorous mammals present in the Gorge but unfortunately all the setts where they live have suffered recent interference and the population has steadily declined during the last decade. Chance sightings of Badgers. and indeed most nocturnal mammals. are unlikely but observant visitors can reasonably expect to see the unmistakable five-toed prints of the Badger almost anywhere south of the Nidd. In contrast to the inoffensive Badger two rather less welcome predators are the Fox and alien American Mink. Since the 1939-45 war, Mink, which either escaped or were released from fur farms, have colonised virtually all our local waterways including the Nidd. This undesirable 'gatecrasher' is a vicious killer and its spread has been at the

expense of many of our indigenous birds and animals. Stoats and Weasels are seen from time to time and their status is unlikely to alter significantly providing the population of prey species — mainly small mammals and Rabbits — remains unchanged.

Each of the five insectivorous mammals resident in mainland Britain occur in the area. Most familiar of these is the Hedgehog but even it is more likely to be encountered at dusk enjoying a bowl of bread and milk in a Bilton garden than in the Gorge. Few householders would offer similar hospitality to the Mole! Because of its subterranean lifestyle the Mole is seldom seen but molehills are a familiar feature of the invertebraterich soils of deciduous woodland as in Coalpits and Spring Wood. Probably the most attractive insectivore is the semi-aquatic Water Shrew and specimens have been seen at Scotton Banks and on the south bank of the Nidd near the viaduct. The

diminutive Pygmy Shrew — Britain's smallest mammal — and the slightly larger and aptly named Common Shrew frequent areas of unkempt grassland and scrub, and both are known to occur along the cuttings and embankments of the dismantled railway at Bilton.

Rodents are also well represented and the two largest - the Grey Squirrel and Water Vole - are seen guite regularly. The North American Grey Squirrel was introduced into Britain as a pet during the last century and, inevitably, a few animals escaped, found conditions to their liking and soon established breeding colonies in the wild. Although Water Voles are fewer than in the past, fishermen and visitors do occasionally see them swimming in the Nidd. Care should be taken not to confuse them with the Common Rat which was introduced into this country several





Wood Mouse . . . abundant along hedges and woodland edge.

centuries ago and has successfully colonised a wide variety of urban and rural habitat. The superb ancient hedgerows at Bilton, for example along Milners Lane, provide ideal habitat for several species of small mammal including the Wood Mouse and Bank Vole. Both are plentiful and are probably the two most abundant mammals in the area. Field Voles are predominantly herbivorous and a careful search in rough grassland is likely to reveal their surface runs and tunnels. The remains of chewed grass stems and piles of faeces should also be found if the system is in use. Rather surprisingly one of the least recorded mammals in the area is the House Mouse and their strongholds appear to be around farms and associated outbuildings.

One of the most frequently seen mammals in the British countryside is the Rabbit and although they suffered a dramatic population 'crash' in the 1950s following the spread of myxomatosis, they have now recovered to somewhere near their former numbers. The Rabbit and its country cousin, the Brown Hare, can occasionally be seen in the fields adjacent to Milners Lane.

At least six of the fifteen species of British bat occur in the Nidd Gorge. During the day these fascinating mammals roost in hollow trees, caves and buildings but can be seen at dusk on warm, summer evenings hunting for insects over the Nidd. The Pipistrelle is by far the most numerous species and several large nursery colonies roost during the summer in houses at Bilton and Scotton Banks. The considerably larger Noctule prefers to roost in hollow trees and a small colony was discovered in 1985 occupying an old woodpecker hole in an Ash tree on the north bank of the Nidd. A colony of Brown Long-eared Bats occupy the loft of a house near Scotton Banks and solitary Whiskered and Natterer's Bat have been found

hibernating nearby. Brandt's Bat, first recognised in Britain at Smelthouses in Nidderdale as recently as 1973, became the twenty-seventh species on the current check list of wild Nidd Gorge mammals when a colony was found at Scotton Banks in 1985.

Many years have passed since the last authenticated sighting of a Grass Snake at Bilton, but the south-facing slopes at Scotton Banks still provide suitable habitat for two other reptiles—the Common Lizard and Slow Worm. Both species can sometimes be found basking in sheltered sites on warm, sunny days.

Another local 'casualty' appears to be the Great Crested Newt and several ponds at Bilton where they formerly bred were filled in and built on during the '50s and '60s. Loss of breeding habitat has been a major factor in the general decline of amphibian populations, and two of their current strongholds are a large pond and the drainage ditches alongside the

dismantled railway near Bogs Lane where the Common Frog, Common Toad, Palmate Newt and Smooth Newt breed each spring.

The presence of such a rich and varied fauna in the Nidd Gorge and Bilton Fields area is largely due to the quality and diversity of habitat together with the fact that there has been so little disturbance or detrimental human activity. Long may this marvellous asset continue to provide a home for so many delightful animals.



Common Frog . . . solitary habits, gregarious when breeding.

We hope you enjoy your walks in this exceptionally beautiful piece of countryside.

It is a vitally important habitat for a great many forms of wildlife, from Badgers to Bryophytes.

Its conservation is imperative!

