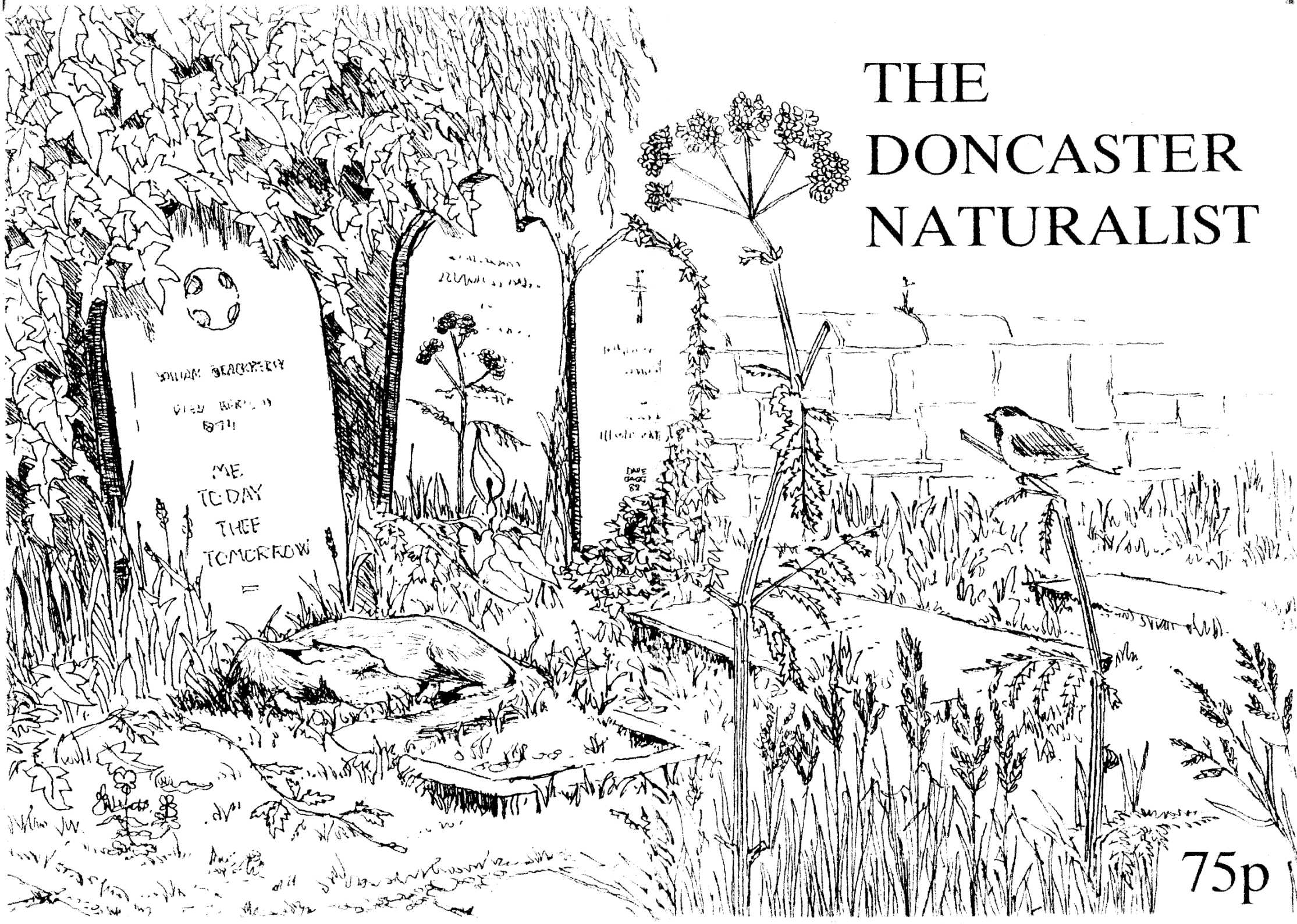

THE DONCASTER NATURALIST

75p

THE DONCASTER NATURALISTS' SOCIETY

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THE DONCASTER NATURALIST
Volume 1 No. 1

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A Message from the President

The Doncaster Naturalists' Society can trace its roots back a long way to the start of the Doncaster Scientific and Microscopical Society in 1880. During this time the Society Journals have only been published twice.
Now that we have celebrated the centenary of the Society (in 1980), the Committee thought that it would be appropriate to launch a new Natural History Journal so that professional and amateur naturalists in the area could contribute observations made in and around Doncaster.

At first sight Doncaster does not seem to have much to offer the naturalist and to an outsider like myself arriving in the 1950's it seemed nothing more than a flat plain dotted with coal tips, factories and railways. It was pointed out to me, however, that to the discerning naturalist Doncaster with its varied rock and soil types can and does support a rich and interesting flora and fauna. Treasures are still to be found, and the number of nature reserves in the area has been increased dramatically in the last fifteen years.

At the main article in this Journal shows, Doncaster has in the past been lucky to have men and women of insight and talent who made major contributions to the advancement of Science at local, national and even international levels. The work is still going on and we hope that this Journal may be of some help in being a vehicle for the communication of findings made and researched in the area.

Articles may be short or long, tentative or intense - do not hesitate to submit your observations. We already have an encouraging list of articles from our members and from which our temporary editor has assembled our first copy.

May I wish our new Journal every success.

D.BRAMLEY President 1982.

In celebration of the Centenary Year of the Doncaster Naturalists, two of our long-standing members, Mr Leslie Smith and Mr Peter Skidmore, prepared an extensive Biographical Directory of the Scientists who had been actively associated with Doncaster in times past. Unfortunately, difficulties were encountered when the cost of publication was realised so the project had to be temporarily shelved.

It seems a great shame that all this carefully collected information cannot be made available to the Members of the Society and, if possible, to a wider public. In view of this, we are publishing the foreword and the chapter on Historical Background in our Journal. We hope, as a Society, to publish the Directory itself as a separate entity at a later date.

The article which follows - 'A Naturalist Looks Back' - was written by Mr. G.E. Hyde, who was President of the Society in the Centenary Year (1980-81).

Dr. H.H.CORBETT M.R.C.S. F.L.S. F.E.S.(1856-1921)
First Honorary Curator, Doncaster Museum.

A Naturalist Looks Back

Reminiscences of G.E.Hyde, President of the Doncaster Naturalists' Society for the Centenary Year 1980.

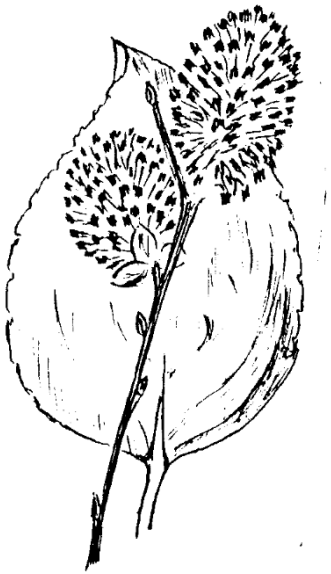
When Ernest Philips and E.R.H.Danby wrote "The Story of Doncaster" they covered a wide field of local history, but included few references to natural history and made no mention of Doncaster Scientific Society which was founded in 1880 and which has played a significant part in the town's affairs. The omission however is perhaps understandable for, although the society still exists, it changed its name to Doncaster Naturalists' Society some years ago.

I joined the Society in the later years of the First World War when, despite inevitable restrictions, meetings were held regularly in a room attached to Parkinson's Shop and Cafe in High Street. This was long before the days of the 35mm colour slide, but a very wide range of subjects was covered by lectures and discussions.

A leading member at the time of my joining was Dr H.H.Corbett, a well-known Doncaster medical practitioner, and a widely recognised authority on many branches of natural history. In common with me, however, he was primarily an Entomologist, and it was this mutual interest which, in spite of considerable difference in age, led to a close friendship which lasted until the doctor's untimely death in 1921.

Doncaster then differed considerably from the ever-spreading township of today, with its teeming traffic. There were tram-cars and horse-drawn vehicles of many types, but motor-cars were so uncommon that one could cycle in comfort and safety into the countryside which started immediately beyond the houses. It is hard to picture today, but the built-up part of Thorne Road ended close to Avenue Road, and there was no Intake or Bessacarr as we know them today. It was inconceivable then that one day the wide fields and woodlands would become busy town suburbs.

One of the finest mixed woodlands, now alas gone forever, was situated close to Armthorpe Lane. It was shown on the Ordnance Survey Maps as Wheatley Low Wood, but was better known locally as Flint Wood because the keeper's house was ornamented with flint; the house, like the wood, has now gone! Considering its proximity to town, Wheatley Wood was surprisingly rich in wildlife, due to its wide variety of broad leaved and coniferous trees. The rich growth of rhododendrons was presumably planted originally to provide cover for the pheasants. In spring the carpet of bluebells amongst which were many white examples of these favourite spring flowers, was the finest in any wodd around Doncaster. The bird life included Sparrowhawks, Long-eared and Tawny Owls, the three British Woodpeckers and, in summer, the Nightjar and Nightingale, together with the usual summer visitors of the Warbler family. The moth population was also rich and it was because of this that Dr Corbett and I spent many enjoyable hours there in the different seasons.

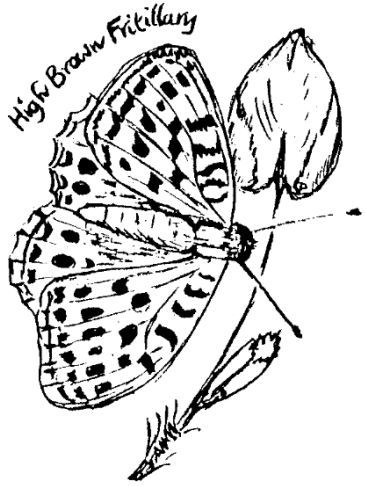


In early spring we went there "sallowing"; this entails shaking the pollen-laden catkins of "Pussy-willows" over a sheet laid on the ground below the bushes and collecting the moths falling on to the sheet, with the aid of a lamp.

Another favoured nocturnal sport was searching for the night-feeding caterpillars. Both pastimes, on mild spring nights, could provide numerous specimens of a wide variety of species.

A favourite hunting ground, a little further from Doncaster, was Martin Beck Wood near Bawtry. Now submerged in the conifer plantations of Bawtry Forest, this was at the time a more open wooded area than Wheatley Wood, containing a

considerable proportion of well-grown oak trees. In those days it was a strictly guarded game preserve, and we were only allowed entry on promising to respect the precious pheasants. For us a feature of special interest was a colony of Ringlet butterflies inhabiting the grassier parts.



On one memorable occasion we caught a High Brown Fritillary there - the only one we ever found anywhere near Doncaster. Even in those early days the Doncaster area was not as rich in butterflies as some more southerly parts of England, but its moth population was rich in both numbers and variety. The Rev.F.O.Morris, author of several popular Victorian books on ornithology and entomology lived in Doncaster for a time. He mentions several butterflies, such as the Wood White, Duke of Burgundy Fritillary, Marsh Fritillary, Small Blue, Marbled White and others, which he found locally, but these had all disappeared from the area before my time.

Amongst other notable lepidopterist friends I would mention L.G.F.Waddington, who came from Leeds, where his father was a doctor. An accountant by profession, he settled in Doncaster soon after Dr Corbett's death. He was a keen collector and breeder of butterflies and moths, and his fine collection is now in Doncaster Museum, along with his notebooks. He lived for a time at Rosehill Rise, near the Racecourse and there obtained a remarkable variety of night-flying moths in his garden, as his notebooks show. Another notable entomologist is Albert Wright of Woodlands near Doncaster, an expert breeder of Lepidoptera with a special love for the exotic giant silk moths.

The Society, of course, catered for all tastes. A particularly valuable contribution was made by W.W.Nicholas. A keen egg collector in his early days, when this was a popular and legal pastime, he later turned to bird photography. His work included some of the finest photographic studies ever taken of choughs, filmed in Western Ireland. Some of his photographs and his egg collection are now in Doncaster Museum.

The Museum also houses the splendid shell collection which was the life work of Mrs E.M.Morehouse. Mrs Morehouse was a widely known authority on Conchology, but she was well-versed in other subjects, as was her daughter, Kathleen, a very able botanist whose death, so soon after her retirement from the Technical College, was a great shock to many of her friends.

The name of Ben Burrell, another member of long standing, is widely known in connection with astronomy. A popular lecturer, he has given many interesting talks on this subject illustrated by numerous original photographs of the moon and the planets.

Finally, I would mention Eric Lee, who lived at Loversall for many years. A keen and careful observer of nature, he contributed many interesting and valuable records of unusual bird, mammals and plants. His observations on Water shrews near Doncaster were especially valuable as this shy animal is rarely noticed and is indeed unknown to the majority of people.

Mr Lee was also a keen gardener and his three greenhouses contained a rare assortment of exotic plants. It was, however, as an expert grower of Pelargoniums that he is particularly remembered.

Mention should be made of the other local society concerned with natural history, namely the Doncaster and District Ornithological Society. This organisation has done splendid work in encouraging an interest amongst young people and has assembled much valuable information through extensive bird ringing, general observation and detailed research. The Nature Reserve at Potteric Carr is managed by the members of that society.

For obvious reasons the length of this study must be limited but I hope that the Doncaster area will continue to produce naturalists and other observers who will carry on the useful work of recording, and where possible protecting for posterity, the more important rural features of our fascinating area.

THE DEVELOPMENT OF SCIENCE IN DONCASTER

by P.Skidmore and L.Smith

On reaching its centenary year in 1980 the Doncaster Naturalists' Society became one of the older associations of its kind in Yorkshire. Its life span has been much longer than that of any other learned society in Doncaster and it has, indeed, been the mother of several. Its contribution to the educational, industrial and social development of the district has been much more significant than is generally supposed and several of its former members have in later life achieved international prominence in their respective fields.

Yet, as we look back, we are aware that the Society's story forms only the latest chapter in the chronicle of scientific study and achievement in our district, and it is our intention to draw attention to some of the figures who have contributed to Doncaster's scientific story. In tracing the threads of our story we cast the net widely, considering not only pure and applied scientists, but also those involved in such related disciplines as cartography, topography, antiquarian studies etc. Indeed a century ago, a philosophical society such as that which existed here would cater for all these persuasions. In this study, then, we are concerned with those who helped in understanding the environment of Doncaster, those whose scientific knowledge brought about changes to it and those who, particularly up to the turn of the century, were leading lights in the scientific education of the population. The creative arts do not play a part in our story.

During this study we have become increasingly aware of the major role any members of our own and previous societies have played in Doncaster's affairs. Amongst these, the Inchbalds and John Riley Hawley did much for the scientific education of the townsfolk, Hawley also playing a major role in the formation of the Doncaster Free Library and, ultimately, through Councillor Samuel Edgar and fellow radical Dr.H.H.Corbett, (two leading figures in the Doncaster Scientific Society), in the establishment of he Doncaster Museum. Corbett was indeed the first curator.(Honorary).

We are also aware that as science has grown, specialisation has become inevitable, so that the present society is much less ambitious in the fields it claims to cover today. The Doncaster Camera Club was formed from the photographic wing of the society in 1894, followed in 1916 by the Doncaster Engineering Society, founder members of which included some of our own prominent members. In 1955 the Doncaster and District Ornithological Society was formed, and the subsequent years have seen many major changes in the pursuit of science in the town but this period has not been researched for this publication. The history of the first 25 years of the Doncaster Ornithological Society was published in 1980.

Historical Background

Already when the Romans arrived in this area, bringing with them their alien technologies of road building and town planning, they entered a landscape which countless earlier generations had rendered largely artificial. Little remained of the primeval forests which had formerly clothed much of lowland Britain, most of the land having been cleared of continuous woodland cover during the Bronze Age.

The traditional belief that Britain was populated by uncivilised savages when the Romans came has been finally destroyed by archaeologists. The inhabitants had in fact highly developed cultures and employed technologies and possessed insights of which we know little though postulate much. Scientific studies are probably as old as mankind and it would be foolish to assume that Bronze Age man was devoid of any scientific insights, indeed the evidence points the other way. We are, of course, aware of the wealth of data built up by many of the older civilisations (i.e.Romans, Greek, Egyptian,Chinese etc), but for the present study our story begins as recently as Tudor times, when the novelty of freedom of thought was sweeping the Christian world and the stifling effect which the Church had imposed since the collapse of Rome was finally crumbling.

There had of course been some notable British intellectuals, students of the natural sciences, like Alexander Neckam,(11571217),

Henry of Huntingson(1084-1155) and Giraldus Cambrensis(c.1146-1220) long before the Reformation. Even in Anglo-Saxon Yorkshire we recall the great Alcuin(735-804), through whom Charlemagne spread the light of education throughout his realms. But scholastic work in the monasteries was usually of a purely theological nature and after over one thousand years of rule by the religious houses the standard texts for aspiring natural scientists were still those of the Greek philosophers like Aristotle. Nevertheless estate management records of the monasteries provide a valuable insight into those elements of the local wildlife which were relevant to the smooth running of the community. Thus the monks of Roche Abbey tell of the valuable eel fisheries of the Don at Conisbrough, of Sparrow Hawk in King's Wood and of wolves near the Abbey in 1156. No doubt some interesting data would have been documented by the Doncaster House of the Carmelites but that institution, like Roche Abbey, was ransacked during the suppression of the monasteries under Thomas Cromwell in the 1530's when libraries were destroyed and scholar killed or dispersed.

The credit side of Cromwell's actions was that learning bloomed as never before. Whilst the two universities were invigorated and many new secular schools were formed, perhaps the greatest social change relevant to our story was the rise of the new gentry, manyof whom were leading merchants involved in the great growth of foreign trade, who bought up the lands of the dispossessed religious houses.

This was a period of enormous change and upheaval. Along with the rise of the new gentry came a staggering growth in the flow of knowledge through technological developments in printing and the sudden booming of international travel and trade. By means of the printed word and the political climate of the day, epitomised in the tale of Dick Whittington, that knowledge and a taste for learning were widely circulated through society. The new nobility competed in their superb mansions, their great gardens and their enthusiasm for culture and novelty and their houses soon became the centres of learned gatherings.

Doncaster found itself in a favoured position in Tudor times, lying on the Great North Road beside the phenomenal Hatfield Chace, a playground for kings. In 1541, Henry VIII extended the boundaries of the Chace westward, thus placing his stamp of approval on this area and doubtless encouraging several of the new rich to make their homes in the Doncaster district. It was during the 1520's that John Leland (1505-52) in his itinerary wrote of this area:

"From Bautre to Dancaster an vij Miles by a great Plaine and sandy ground caullid Blithelo, by the name of Blyth Ryver...But er I cam to Dancaster I passid over the Ford of a Brooke a 5 miles of, wher as I remembre, is Rosington Bridge....The hole toune of Dancaster is builded of Woode, and the Houses be slatid; yet is there Great Plenty of stone there about... The soile about Dancaster hath very good Medow,Corne and some Woode. From Dancaster by South West to Tikhill a 5 miles partly on low pasture grounde but fruteful of Corne...From Tikhil to Cunesborow a 4 miles by stoney way and enclosid grounds....From Cunesborow to Dancaster a 3 miles by fruteful Ground.. From Dancaster to Heathfield by champayne sandy Ground a 5 miles...The Quarters about Heathfield be forest Ground and though Wood be scars there yet is Great Plentie of red Deere, that haunt the Fennes and the great Moores there about as to Axholm worde and Thurne Village..the Ground al about Thurne is either Playn,More or Fenne..by water to a great lake caullid the Mere, almost a Mile over a Mile or more. This Mere is fulle of good Fische and Foule.. The Ground betwixt Dancaster and Pontefract in sum Places meately wooded and enclosid Ground; in al Places reasonably fruteful of Pasture and Corne".

In the natural sciences botany became very much in vogue thanks thanks to its practical application in horticulture and medicine (Physick). The ancient Greek and Arab texts had been researched and updated by such continental botanists as Dodoens(1517-85) and Caesalpinus(1519-1603) and applies to the British flora by two northerners, William Turner(1510-68) and John Gerarde(1545-1612). It was late in Elizabeth's reign that the latter placed Doncaster on the botanical mapof Britain when he stayed here en route from his London practice to the Craven Pennines.

To be continued.....

A Ramble through an Austrian Forest

by David Skidmore.

In the summer holidays we visited St.Johann in Tirol in Austria. One day as we were walking up to the forest edge we came to a small wooden bridge over a stream. In the stream there were some Brown Trout which we watched for some time. As we were walking away, Mummy spotted a Greenfinch feeding on the thistle seeds beside the stream. Later we passed a farm and were watching a Black Redstart on the eaves. Suddenly, we looked round and a large brown bird flew past and disappeared into the trees opposite. Fortunately we knew it was a bird of prey and was kestrel-like in appearance and size. Later, we saw it again, perching on a telegraph wire and we watched it for some time. Twice it swooped down into the field, obviously trying to catch prey. We could see clearly that it was a female Lesser Kestrel. Nearby, at the top of a small bush by the path, we saw a cock Redbacked Shrike, which only flew when we came very close to it and we could see all its beautiful colours and markings. From then on, into the forest we were looking at bush crickets and many other insects. In the forest, there was a trickle of water along the side of the track, and this reminded us to look for Alpine Salamanders. But, much to our surprise, we found a Fire-bellied Toad instead. As we came out of the trees, we picked up some large stones and under most we were lucky to find SlowWorms.

A Naturalist's View of the Don

by C.A.Howes

Who would believe that the river Don and its tributaries were at one time so sparkling clean that they supported no less than 38 species of fish - including sturgeon - and a thriving salmon fishery. Local anglers and fishmongers were not alone in benefiting from the Don's teeming fish, large populations of herons and kingfishers throve - otters abounded even where the Don and its offshoot, the Cheswold, passed through Doncaster - and seals and porpoises were attracted up from the sea to make raiding sorties on the migrating shoals of salmon and sea trout.

The river was clean enough to provide much of Doncaster's water supply, it supported pleasure boating enterprises at Hexthorpe and Conisbrough and annual swimming galas were held.
Today, a legacy of an industrial and commercial history has reduced the Don to being one of Britain's most polluted rivers, but don't be put off! The river still sparkles with interest. Here on the doorstep it provides a fascinating recreational and educational amenity - and things are improving, plant life, kingfishers and a few fish are slowly making a come-back.
One of the most interesting and enjoyable walks in the Doncaster area is along the north bank of the Don from St.Mary's Bridge, west to Newton and on to Sprotbrough Falls, the Don Gorge and Sprotbrough Flash. A pub and bus route are strategically positioned near both ends of the walk.
Many of the plants and animals which lived in the Don centuries ago can be seen flourishing in the series of ponds and ox-bow lakes - living museums - cut off from the Don's polluting effect by a history of canalisation and flood prevention schemes.
Aquatic plants like arrowhead and yellow waterlily occur together with diving beetles, water scorpions and a variety of dragon and damsel flies in such waters as Black Pond near the power station and Bell Pond on Sprotbrough Ings.
Unploughed wet pasture and marsh at Hexthorpe Ings and Sprotbrough Ings are also a haven for indigenous wildlife. Teal, lapwing and snipe feed amongst lush growths of reedgrass and watergrass, lady's smock and water violets, crowfoot and water plantain. In winter, short-eared owls from Scotland and Scandinavia join local kestrel to hunt for field voles and no doubt for the diminutive harvest mouse which weaves its ball-like nest in the tall marshland grasses. Opportunist starlings and slim, nimble yellow wagtails dart after insects disturbed by the feet of cattle which graze the embankments, riverside pastures and washland.
On the river itself, the rotund russet dabchick or little grebe, occasionally the elegant great crested grebe, and in winter the blacknecked grebe, dive energetically for three-spined sticklebacks and the larvae and adults of aquatic insects. Moorhens and the occasional mallard skulk and raise their young under

low branches and among the exposed root systems of riverside trees. Common sandpipers and pied wagtails feed on the mud spits on river bends and blackheaded gulls which breed locally at Potteric Carr and Thorne Moors maintain a constant aerial reconnaissance for food amongst the riverside flotsam.
One of the plants which does mind its feet in the Don is the iris-like sweet flag. A native of southern Asia, it was introduced into Britain via Europe during the 1600's and is now well established along slow flowing rivers, canals and in riverside ponds in the Doncaster area. Its leaves, when crushed, give off a strong lemon scent and were much used for strewing on the floors of churches to counter the smell of potentially malodorous congregations. The plant's presence in the Don Navigation may have some connection with old-time bargees using it to chew as a substitute for tobacco.
The embankments and towpaths support masses of wild plants which in their seasons produce a riot of colour, an abundance of food for nectar feeding insects and, in autumn, seemingly limitless supplies of seeds which attract such birds as goldfinches and linnets, redpolls and brambling.
Like some of the cargoes carried on the Don, many of the riverside plants are not of local origin. Tall jungles of Himalayan balsam with conspicuous pink or white helmet-like flowers have become triumphantly dominant on the Don banks at Sprotbrough Flash and Levitt Hagg. Introduced into Britain as a garden plant in the 1830's it was, by the 1890's, showing its paces as a vigorous colonist, though its invasion of local canal and river banks was not noticed until the 1950's and 60's.
Another oriental colonist in the Don Gorge is the large leaved thicket-forming Japanese knotweed. Brought to Britain in 1825, it first appeared in the Doncaster area in the 1950's - slightly before those cars from the same part of the world. It is now, like the cars, an obtrusive feature of Doncaster's car parks and urban areas.
The attractive bright yellow flowered Oxford ragwort - now so common in urban wasteland and which thrives along stretches of the Don towpath, particularly near the locks - originates on the pumice and ash slopes of Mount Etna in Sicily. It was introduced into the botanic gardens in Oxford (hence its name) in 1690, where it became established, not in the garden but

on the wall. The development of networks of railway systems throughout Britain during the 19th century gave rise to miles of railway embankment ballast, which naturally suited the Oxford ragwort - remember Mount Etna - and on to which it quickly spread. Oxford ragwort arrived, via the railways, in the Doncaster area at Denaby Crossings in 1935 and Doncaster station in 1936. It lost no time in colonising the Warmsworth, Balby and Hexthorpe areas, the present Don banks plants probably being escapees from the Plant Works!

Other Don-side species which 'got over the wall' are feverfew, tansy and wormwood. Feverfew, with its chrysanthemum-like leaves and daisy-like flowers was much used in pre-aspirin days by migraine sufferers. Today the plant has escaped from the herb garden and is doing its own thing, along with the aniseed-scented sweet cicely by the bridge at Sprotbrough Falls. The silver-foliaged wormwood, abundant along the Don banks, particularly in areas where canal dredgings have been used to raise the embankment, is another escapee from the old-time herb gardens where it was grown for uses as diverse as "worming" children and as a clothes moth repellent.

The pink flowered smooth leaved 'bouncing Betty', or soapwort, forms rampant canal-side beds, particularly at the Doncaster end of the walk. It was introduced for use before the days of washing powders as a washing agent, saponin, its "active ingredient" being an excellent dirt remover.

Tall pinkish purple spikes of rose-bay willow-herb are another familiar spectacle of urban ecology. At one time it was a great rarity in South Yorkshire but industrial and urban development have produced conditions the plant likes and today it is going like wildfire(one of its names if fire-weed!) and giving rise to a population explosion of elephant hawk moths which feed on its foliage.

Not all the Fen-side plants are aliens or have come as a result of industrialisation. Those magnificent riverside trees, the crack willows and alders together with field maple, ash, elm and hawthorn, provide, where out of reach of navigation or flood bank schemes, a superb scenic backcloth particularly at Hexthorpe and through the Don gorge. Like the crack willows

which grace the island at Sprotbrough Falls, another ancient Briton is the wild clematis, old man's beard or traveller's joy which festoons the bankside hawthorns at Levitt Hagg. The accessible riverbanks and waterway towpaths of the Doncaster area present a dramatic and sometimes startling variety of landscapes. All are steeped in interest, all are well worth exploring.

FIELD MEETINGS - SUMMER 1982

Members of Doncaster Naturalists' Society visited the following areas during the summer months:-

Cutthroat Bridge
Roche Abbey
Fairburn Ings
Thorne Moors
Thorne Waterside
Cresswell Crags
Sprotborough Flash and Pot Riaings Wood
Denaby Ings
Hexthorpe Ings
Idle Stop, Misson

Our secretary, Rob Taylor reports:

After the severe winter of 1981/2 it seemed that the following spring and summer would be poor in numbers and variety of species. In November the floods covered much agricultural ground, flushing out hibernating species and submerging many insects' eggs and chrysalids. From mid-December to the end of January snow covered the ground and, in some areas, the drifts were 10 feet deep.

Obviously the bad weather did take its toll of many birds and plants, but the spring and summer which followed this severe winter have been rich in blossoms and abundant in bird and butterfly sightings. The latter include:

Brimstone Butterfly (Gonepteryx rhamni) at Denaby Ings
White Letter Hairstreak (Strymonidia w-album) at Sprotborough Flash
Red Admiral (Vanessa atalanta) and
Peacock (Inachis io)
were both found in large numbers in many areas
Eyed Hawk Moth Caterpillars (Smerinthus ocallata L.) on weeping willows were reported from gardens
Humming Bird Hawk Moths (Macroglossum stellatarum) were reported from Sprotborough and Bolton upon Dearne

One of our most interesting Society outings was to Denaby Ings on July 19th, when 183 flowering plants were recorded. In spite of the poor weather, entomological sweeps throughout the day and evening brought some very interesting records:

2 larger midges -

Mallochohelea inermis) New Yorkshire
Sphaeromias fasciatus) Records

A leaf beetle on Crack Willow -

Plagodera versicolor a very local species usually found south of a line from Huntingdon to Worcester

Anopheles messeae (a mosquito which carries malaria in other parts of the world)was another interesting find.

Plant lists were made for each of the outings; some of the more unusual finds were -

Bidens tripartita (Bur Marigold) at Hexthorpe Ings
Samolus valerandi (Brookweed) at Idle Stop
Oenanthe crocata (Hemlock Water Dropwort) on Thorne Waterside
Neottia nidus-avis (Bird's nest Orchid) in Pot Riding Wood

When the Society visited Thorne Moors on July 17th many interesting plants were seen, despite the fact that the habitat was disturbed by fire during May. Mr Terry Wells conducted the party round the Reserve showing those rarities which were in bloom. Among those seen were Bladderwort, Marsh Cinquefoil, Marsh Andromeda and several orchids.
The common Sand Lizard was also seen, and an Adder scurrying across the path and into the heather.

There are still records coming in from our Field Trips, but the following reports from two of our members should show the variety of wildlife which still exists in our area today, providing the enthusiastic beginner with the incentive to go out and observe, and the specialist to do even better next time!

Roche Abbey, 17th April, 1982

Starting at 2 p.m. we walked round the Norwoods. The day was warm and sunny, which seemed to being out more birds than usual. Passerines were very numerous with 15 Great Tits, 20 Blue Tits, 2 Robins, 1 Dunnock and 2 Wrens. During the afternoon 10 singing male Willow Warblers were seen, and a quiet Garden Warbler was observed for ten minutes.

Pheasants could be heard calling around us in the woods, and good views of 5 Jays sere claimed near the stream. On the stream itself were 3 Pied Wagtails, but surprisingly no Yellow or Grey Wagtails.
After tea a walk near the Abbey did not reveal anything special just birds such as Song Thrush, Mistle Thrush, a Redwing, Chiff-Chaff, 3 Coots on the lake and a male Kestrel. But undoubtedly the bird of the day was a female Sparrowhawk which was seen gliding near the Sewage Works. Unfortunately, we did not see any tree climbing birds, such as Tree Creepers or Woodpeckers - an explanation of this is that there has been recent disturbance due to felling of trees.

Jeff Thornton(one of our Junior Members) gives his impressions of some of the other meetings. Jeff's main interest, as you will gather, is Bird Watching.

Fairburn Ings 8th May, 1982

We arrived at the Ings at 2.30 and were met by the Warden. Unfortunately, he was unable to come round the reserve with us, but the members present enjoyed the walk, the day being hot and sunny.
Birds seen were mainly water birds, such as Tufted Duck, Pochard, Canada Geese, Mute Swan and Great Crested Grebe. Three species of Hirundine could be seen - Swift, House Martin and Swallow. From the double decker hide a Lesser Whitethroat was viewed.
The most surprising bird of the day was an immature Little Gull on the main body of the water.

Cresswell Crags 22nd May,1982

This field trip was a follow-up from the talk which was given to the Society in the winter months by the Warden of the Crags. We started the trip with a short film show in the Visitor Centre, and then we were taken on a tour of the caves by the warden.
Jeff records his impressions as follows:-
Cresswell Crags is situated in woodland and thus the birds seen were mostly woodland species. There is a small lake at

the Crags but all it had on it were a few coots. However, water birds could be seen flying over - these included 2 Mallard, 5 Canada Geese and a Grey Heron.
In the Crags themselves, Jackdaws were nesting along with Blue Tits. Woodland birds were seen just as you would expect, Chiff Chaff, Garden Warbler, Goldfinch, Blackcap and a Spotted Flycatcher near the Field Centre.

Sprotborough Flash 11th September 1982. 7.45 a.m.
On this occasion I didn't do much walking, I just watched from the Kingfisher and Second Hides. Throughout my stay, a Kingfisher occasionally flew past. In Sprotborough Plantation at about 8 a.m. a Great Spotted Woodpecker called for about half a minute. A few minutes later, a Grey Wagtail flew over the Flash calling.
At 8.20 a wader appeared on the mud near the reeds in front of the Kingfisher Hide - it was a Water Rail. It is a very shy bird and it soon darted into the reeds. A Snipe came out on to the mud at 8.30 and stayed until 9.15.
Birds on the water included 6 Mute Swans, 5 Great Crested Grebe (one in summer plumage) and a pair pre-displaying, 2 Little Grebe, 2 Pochard, 10 Tufted Duck, 9 Shovelers and and 11 Teal.

IGNOR HIM DEAR! WOT WE DO TO LIVE, HE CALLS SPORT!

Mountain Hare Walk/Survey, Sunday, March 21st 1982
Report by Derek Allan

On the morning of Sunday, March 21st, a group of about forty people met at Cutthroat Bridge, SK 213875, near Ladybower Reservoir, under the leadership of Mr Colin Marsden of the Sorby Society of Sheffield. Included in the group were Peter Bullock, Derek Allan and Jeff Thornton, representing the Doncaster Naturalists' Society. The weather was rather poor with low cloud and patches of snow on the tops, which boded ill for the survey.

We set off at 10.30 a.m. and walked up Whinstone Lee Tor, seeing our first hare sitting in the heather about ten yards from the path. From here we proceeded northwards along Derwent Edge via Wheelstones, White Tor and Salt Cellar, where we had lunch. While traversing the edge to Salt Cellar, a number of 'sweepers' were sent out below the edge to check on numbers and to act as beaters to flush out the hares for the main group. Most hares were below us, but a number were seen on top of the Edge around us. Despite it being fairly late in the season, the hares still retained their white coloration to a great extent, although they were beginning to revert to their normal colour.

After lunch, the remaining group of fifteen people continued along Derwent Edge via Dovestone Tor and Back Tor and on northwards across Howden Moss and Featherbed Moss to Bullstones. From here, we continued south-eastwards to Margery Hill. Along this stretch we saw another half dozen hares, although the visibility was very poor, being about 20 yards with the rain falling steadily. Near Stainery Clough, we heard four golden plovers calling overhead and also a number of grouse.

From Stainery Clough we walked eastwards across Middle Moss towards Hobson Moss where we joined the track which runs east to meet the road at Smallfield. A short-eared owl was seen at rest (at about SK 225947) 200 yards to the south of the track. It flew a short distance before coming to rest in the grass and heather.

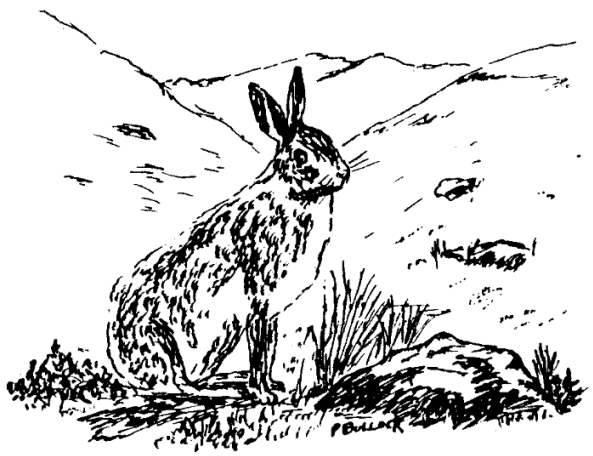
The walk continued until we reached the road, where we then proceeded to Mr Marsden's house at Low Bradfield for warming cups of tea, liberally laced with whisky, which was most welcome after a rather wet and cold day out.

The number of mountain hares counted during the day by the 'sweepers' and the main group was fifty-six.

56 Mountain Hares	-----	Lepus timidus
1 Short-eared Owl	-----	Asio flammens
4 Golden Plover	------	Pluvialis apricaria
Red Grouse	------	Lagopus lagopus scoticus L.

Plants noted:

Heather	-------	Calluna vulgaris
Cloudberry	-------	Rubus chamaemorus



The Freshwater Snails of the Doncaster District

by Martin Moss and Brian Eversham

Introduction

The pond snails form a small and readily identified group of animals with only about thirty species in the Doncaster area. Despite this, very little work has been done on them in recent years. There are many records dating from early this century and from the last, and though these create the impression that the district is well-worked, with few gaps on the published distribution maps (Kerney,1976), they are of no help in assessing the present status of Doncaster pond snails.

Studies in other parts of the country(Kerney and Stubbs,1980) suggested that our pond snail fauna may have declined markedly in the last fifty years. Many factors militate against fresh water animals. Small ponds often dry up, and this is fatal for many soft-bodied animals. Because most pondsnails are unable to walk far over land, even during rainy weather, a pond which dries up only once in twenty years will support only a few hardy snails. Some may be able to hitch a lift on the feet of passing ducks and waders, and very tiny molluscs, such as the pea-shell cockles Pisidium could attach to the legs of flying water-bugs and beetles, but this cannot be a very reliable mode of transport.

Even when a snail has reached a pond, and escaped death by drying, it is still not out of danger. Insecticides and industrial effluents still reach our ponds and rivers. More insidious than poisoning by pesticides is the gradual change brought about by artificial enrichment. When fertilisers are applied to farmland it is inevitable that some will be washed into ponds and rivers. High nutrient levels often lead to a weed-choked pond with slimy strands of filamentous algae set in a green soup of microscopic plants. The lack of diversity in the vegetation will be reflected in the snail fauna, and the death and decomposition of algae can cause oxygen deficiency, especially in hot weather. Very few species can tolerate such filthy conditions, but those which can(e.g.the Bladder Snails Phyas) may reach extremely high densities. When one species is very abundant, it may be detrimental to others. Though food does not seem to be in short supply, species may compete at those times of year when their eggs have just hatched and droves of young snails are grazing voraciously.

In view of the damage caused by infilling of ponds, dredging of ditches and rivers, and the pollution of freshwaters of all kinds, the time seems ripe for a reappraisal of Doncaster pondsnails, and a concerted effort to put on record the

distribution of each species. Thanks to the mining industry, subsidence is producing new ponds in parts of the district, giving us the opportunity to monitor the sequence of colonisation and succession in many groups of plants and animals. Pondsnails are easy to collect and study, and we hope this paper will stimulate others to take a look in their local ponds and take an interest in a neglected but fascinating group of animals.
This paper summarizes the past records of Doncaster pondsnails, outlines the present state of knowledge, and indicates the gaps and the apparent changes which have occurred over the years. An attempt has also been made to set Doncaster pondsnails in a national context and to give an indication of the ecology of each species.

Existing Records

The nomenclature followed is that of Kerney(1976), but earlier names likely to be met with are given in parenthesis. For uncommon species, all known records are listed. Inother cases, the number of records is given, with a note on probable abundance. Ecological information is adapted from Boycott(1936), and national distribution from Kerney(1976).
Although scientific names have several advantages, and are the ones usually used by conchologists, English names are included for those who prefer them; these are taken from Janus(1965).
Most records were extracted from the files of Doncaster Museum, and some refer to specimens in the collections. Although details of dates and collectors are scanty, most records between 1920 and 1960 are the work of Mrs.EM and Miss K Morehouse, those from 1960 to the late 1970's are the work of Doncaster Museum staff(unless otherwise stated) and those since 1970 are from our own collecting.

Theodoxus(Neritina) fluviatilia(Linn) 'Freshwater Nerite'
Specimens in the museum collections are labelled 'Almholme' (no date). Since the species is usually found in fast flowing stretches of very calcareous rivers, this is an unlikely record, although it was found in the River Don above Sheffield in 1973 (Riley in Zasada & Smith 1981).

Viviparus viviparus (Linn.) 'River Snail'
Four early records: Askern 1842, Thorne 1907, Mattersey 1929 Wheatley Pond(n.d.) The species seems to have declined in recent years, and there is reason to believe that the only two modern records - Torne Bridge 1969 and Black Pond, Sprotbrough -

may be referable to the next species. The species is usually found in large ponds and slow-flowing rivers with hard waters, common in the south it reaches its northern limit in Yorkshire,

Vivaparus contectus (fasciatus) (Millet) 'Lister's River Snail
With ten records, this seems always to have been commoner than V.viviparus around Doncaster, contrary to the national trend. There are modern records from Blaxton 1969 Old Don, Stainforth,1977, R.Torne,Wroot - only 2 km. from Torne Bridge-1979(M. Lynes), and Black Pond 1981. It occurs in similar habitats to V.Vivip arus but is more often found in still water. (which may explain its survival in the area)

Valvata cristata Muller 'Flat Valve Snail'
Five records: Hatfield Chace 1888, Thorne Moors 1892, Shirley Pool 1893, Cusworth 1902, and R Torne 1902. Although it has not been seen in the district for eighty years, it may still be present, as it is small(under 4 mm) and resembles some of the Ramshorn snails so could easily be overlooked. A further problem is that the standard identification guide(Macan,1977) does not figure it correctly (see literature section below). V.Cristata prefers well-oxygenated water(muddy), so should be looked for among thick weeds in rivers, ditches and large ponds. It is quite common throughout eastern England, including the rest of lowland Yorkshire.

Valvata piscinalis (Müller) 'Common Valve Snail'
Of the sixteen records, only three are post 1920: Barrow Hills 1962, North edge of Hatfield Moor 1980, and Old Don,Stainforth, 1982. This seems to suggest that it has declined,it is usually found in slow-flowing water(e.g. large drainage ditches), which are more susceptible to pollution than closed ponds.

Potamopyrgus(Hydrobia Paludestrina)jenkinsi(Smith)'Jenkins'Spire Snail
Nine records: only one(Brocadale 1916) is pre-1960 and six are 1980-82. It could have been overlooked because of its small size, but it may well have increased in recent years: until 1883 it was confined to brackish waters, since when it has colonised fresh water successfully.

Bithynia tentaculata (Linn.) 'Common Bithynia'
Nineteen records in total, including several recent ones. Quite common, both locally and nationally, though rare in small ponds. Large ponds and slow-flowing ditches are its strongholds round Doncaster, and it is often abundant in such sites.

Bithynia leachii (Sheppard) 'Leach's Bithynia'
Eleven records: almost as widespread as B.tentaculata, but never very abundant and often only two or three among dozens of its larger relative.

Aplexa (Aplecta, Physa) hypnorum (Linn) 'Moss Bladder Snail'
Eigheen records: quite common, often in sites which dry up in summer. It is also tolerant of soft water, and has been found in small, foul-smelling cattle ponds where few other species can survive.

Physa fontinalis (Linn) 'Bladder Snail'
Thirty records. Though supposedly preferring clean running water, in this area it is commonest in weedy ponds and ditches. It occurs abundantly throughout Britain.

Physa cf. heterostropha Say 'Wide-mouthed Bladder Snail'
Two undated gatherings in the museum collections are labelled 'Black Pond' and 'a ditch near Doncaster gasworks'. The taxon has not been found in recent years. An introduction from North America, there is some doubt about its correct name. It is widespread, but uncommon, most often found in artificially heated sites, e.g. the outflows from power stations (and maybe gasworks?).

Physa cf. acuta Draparnaud 'Sharp Bladder Snail'
This species is abundant in the Don at Sprotbrough, being found during the recent Doncaster Naturalists' - Yorkshire Conchological Society foray. This is the only Doncaster record, and about the third county record of a Mediterranean introduction which is now widespread and becoming frequent in England. Again there is some doubt about its true identity. Both acuta and heterostropha are tolerant of pollution, and flourish in foul waters.

Lymnaea truncatula (Muller) 'Dwarf Pond Snail'
Fairly common, with thirteen records. Found in damp pastures, and at the edge of permanent water - not truly aquatic.

Lymnaea glabra (Muller) 'Mud Snail'
Seven records, but only two(Southfield Reservoir edges 1976 (BCE) and Fowlsyke pond Sprotbrough 1981) since 1920. Nationally uncommon (though South Yorkshire appears to be a stronghold according to the Atlas(Kerney 1976) and usually in marshes and temporary pools.

Lymnaea palustris (Muller) 'Marsh Snail'
Nineteen records. Common, and found in large ponds and in small ditches which dry up in summer.

Lymnaea stagnalis (Linn) 'Great Pond Snail'
Twenty-six records, one of our commonest and most conspicuous snails, thriving both in still and flowing water, in large lakes and in small ditches. Has always been well recorded in this area, and was one of the species noted by Dr Martin Lister at Potteric Carr in 1670!

Lymnaea auricularis (Linn) 'Ear Pond Snail'
Seven records: Campsall 1886, Askern 1888, Bishops Dyke 1899, Cusworth 1902, Bawtry 1916, R.Torne near Wroot 1980 and Fowlsyke, Sprotbrough 1981. With only two recent records, one of which was an empty shell and could have been washed down river from outside the district, this seems to have declined. It usually prefers large bodies of hard water.

Lymnaea peregra (pereger) Müller 'Wandering Pond Snail'
By far the commonest pondsnail, with forty-six local records. Found in all forms of permanent water, including the smallest farm ponds, and one of the first to reach new ponds and flashes.

Planorbis planorbis (complanatus)(Linn) 'Common Ram's Horn Snail'
Nineteen records. Quite common, especially in small and weedy ponds and ditches. Only two of the records are pre-1930, so the species may be commoner than formerly.

Planorbis carinatus (Linn) 'Keeled Ram's-horn Snail'
Fourteen records, five of them pre-1930. This is now a little less common than P. planorbis, and may have declined. It apparently prefers larger bodies of water, and when the two species coexist, carinatus is the less numerous.

Anisus (Planorbis) leucostoma (spirorbis) Millet
'White lipped Ram's-Horn Snail'
Fifteen records. Commonest in marshy vegetation at the edge of ponds but sometimes abundant in large ponds.

Anisus (Planorbis) vortex (Linn) 'Whirlpool Ram's-Horn Snail'
Twenty-four records. Common in weedy ditches and large ponds. Seems rather more tolerant of shade than most snails, thriving on fallen leaves as well as on pondweeds.

Bathyomphalus (Planorbis) contortus (Linn) 'Twisted Ram's-Horn Snail
Twelve records. Common in weedy ponds and ditches of all sizes.

Gyraulus (Planorbis) albus (Müller)
Twenty records. Another small ram'shorn tolerant of soft water and pollution.

Gyraulus (Planorbis) laevis (glabra) (Alder) 'Smooth Ram's Horn Snail'
The only record is of a sub-fossil shell found near Campsall in 1929, and mentioned in the minutes of the Doncaster Scientific Society (forerunner of the D.N.S.) A very uncommon species, with only four modern Yorkshire records, which it would be exciting to re-discover in the district.

Armiger (Planorbis) crista (nautileus) (Linn) Nautilus Ram's-horn Snail'
Only five records: Sandall Brick-pits (no date), Burghwallis 1896, Cusworth 1902, Roche Abbey 1942, and a pond near Melton College, 1982. Nationally, it is common in still waters of all kinds, but is easily overlooked, being only 3 mm across and choosing thick weeds to live in: the Melton College snails were clustered among Duckweed (Lemna Minor) on the surface of an otherwise barren pool.

Hippeutis (Planorbis) complanata (fontanus) (Linn) 'Flat Ram'shorn Snail'
Nine records, only three since 1920: Roche Abbey 1941, Belle Pond 1981, Old Dearne, Denaby, 1982. The last two were of single empty shells, not indicative of healthy populations. The species may have declined locally, but is still common in stagnant, calcareous waters throughout England, especially the south.

Segmentina (Planorbis) nitida (Müller) 'Shining Ram's-horn Snail'
Three records: Askern 1918, Mattersey c. 1910, Campsall (sub-fossil) 1929. Formerly widespread in ponds and ditches this is extremely sensitive to pollution, and has not been seen outside Norfolk, Kent and Hampshire since 1950. It is almost certainly extinct in the Doncaster district, though it is unlikely to be present at high densities and would need careful searching even if present.

Planobarius (Planorbis) corneus (Linn) 'Great Ram's-Horn Snail'
Sixteen records. The largest and most conspicuous Ram's-Horn found throughout the district but mostly in the larger ponds.

Ancylus (Ancylastrum) fluviatilis (Müller) 'River Limpet'
Four records: drain near R.Torne 1902, Wheatley Pond 1942, R.Ryton, 1946 and R.Don Sprotbrough 1982. Most common in rivers and on wave-lapped lake shores, but able to survive wherever there are bare rocks or logs on which it can graze. Allegedly intolerant of pollution (Riley in Zasada & Smith 1981) so its occurrence in the Don, alongside Phys. cf.acuta is surprising - the site was just downstream of a weir, which may help.

Acroloxus (Ancylus, Velletia) lacustris (Linn) 'Lake Limpet'
Five records: Shirley Pool 1893, Campsall (sub-fossil) 1929, Roche Abbey 1971, Thorne Delves 1976 (BCE), Belle Pond 1981. This tiny limpet is often found on the underside of lily-pads and floating pondweeds. It is very abundant in Belle Pond, and may be overlooked elsewhere.

The following species are often associated with freshwater, though they are usually classed as terrestrial:

Succinea putris (Linn) 'Amber Snail'
Seventeen records. Common in marshes and wet grassland

especially numerous on stems and leaves of Glyceria.

Oxyloma pfeifferi (Rossmässler) (Succines elegans) 'Pfeiffer's Amber Snail'
Eleven records. Smaller than, but very similar to, Succinea putris this is quite common and occurs in similar situations.

Zonitoides nitidus (Müller) 'Shiny Glass Snail'
Twelve records. A small brown-shelled relative of the Garlic Snails usually found at ground level, among the roots of reeds and grasses. It can occur in much drier sites than the Amber Snails, but often is washed down into the water, so may turn up in a pond net.

Deroceras (Agriolimax) laeve (Müller) 'Marsh Slug'
Fifteen records. A small, usually dark-brown, slug (i.e. it has no shell) which is confined to damp areas, and is especially abundant in pond margins. At times, it may forage under water, and browse on pondweeds.

To summarise the changing fortunes of Doncaster district pondsnails, one can classify them according to whether they appear to have declined, increased or remained unchanged during the last century or so, for which we have adequate records.

Extinct	Theodoxus fluviatilis, Physa heterostropha, Gyraulus leavis, Segmentina nitida, Valvata cristata
Declining	Viviparus viviparus, Valvata piscinalis, Lymnaea glabra, Lymnaea auricularia, Planorbis carinatus, Hippeutis complanata
No Change	Viviparus contectus, Bithynis tentaculata, Bithynis leschii, Aplexa hypnorum, Physa fontinalis, Lymnaea truncatula, L. palustria, L. stagnalia, L. peregra, Anisus leucostoma, A. vortex, Bathyomphalus, contortus, Gyraulus albus, Armiger crista, Planorbarius corneus, Ancylus fluviatilis.
Increasing	Potamopyrgus jenkinsi, Planorbis planorbis, Acroloxus lacustris
Recent Arrival	Physa acuta

Thus of thirty-one species recorded, we have lost five, have six in decline, three increasing, one newly arrived and sixteen showing no perceptible change over the last one hundred years. Doncaster is, therefore, still a rich area for pondsnails and it may well become richer if pollution control continues to be successful: the only extinctions which are clearly part of a national pattern are S. nitida and G. laevis, and the latter should conceivably reappear. V. cristata is probably only temporarily over-looked, P. heterostropha is spreading in other parts of the country, and could well reach us again. Theodoxus is a curious record, unlikely to be repeated until the River Don is a great deal cleaner.

Of more concern are the declining species and the constantly rare ones, and for these it is important that monitoring is kept up.

Methods of Recording and Sampling Techniques

The national distribution of pondsnails is already quite well known. What is still lacking is information on local distributions, and on the ecology - the likes and dislikes - of individual species. Local naturalists can make useful discoveries simply by listing the species present in a stretch of freshwater - marsh, pond, ditch or river - which they visit. If one also notes the relative abundance of each snail species, even very roughly, and the type of pond etc. one can soon reach tentative conclusions about the habitat preferences of each species. Many of the potted ecologies in this paper may turn out to be quite wrong for this area - much of the information is derived from observations elsewhere in the country many years ago. (The standard paper on pondsnail ecology, by Boycott, was written in 1936!)

To begin, first find your pond (ditch, river). No wet habitat should be ignored, since interesting or rare snails can appear anywhere. Also, negative information is just as useful as positive e.g. 'no snails in pond X despite ten hours searching' may be depressing but can tell us a lot about the limits beyond which snails cannot survive.

Freshwater snails are mostly confined to shallow water, and feed either on plants of on bottom detritus. Most can be found by searching by hand, but a small net helps in searching deeper water. A grapnel of stout wire on a length of thin rope or nylon cord is useful for bringing samples of weed back to the bank for examination: large snails are usually dislodged in the process, so only the smaller species can be expected by this technique. A metal kitchen sieve is necessary for straining mud, which often reveals large numbers of empty shells, as well as many live bivalves (pea-shell cockles etc.). Unfortunately the latter are difficult to identify, so are best returned to the pond.

Though most snails can be found among submerged weeds, a few are specialists. The roots of tall marginal plants such as bur-reeds and grasses (Phalaris, Glyceria and Phragmites) are the places to look for Anisus leucostoma, Lymnaea truncatula, L.glabra and L.palustris. On the plants themselves one may find Oxyloma and Succinea, and a little further from the water, Zonitoides nitidus should occur.

Submerged logs etc. should not be neglected, as they serve as grazing areas for many snails. The undersides of lilypads and floating pondweed leaves (Potamogeton spp.) can be very rich: in addition to the usual species, the limpet, Acroloxus is often found, and it is a favoured microsite of Physa fontinalis.

Before leaving the pond, it is helpful to note the following, which make any records all the more valuable:
Name and location of pond, ditch/river investigated, with a map reference if possible.
Size of pond, or length of ditch/river investigated.
Date, number of observers, and time spent collecting.
(This gives an idea of how thoroughly a site has been sampled).
Shading (approximate percentage of tree cover) and vegetation ('reed-fringed, with water-lilies and duckweed, very little weed on muddy bottom' etc. Details of plant species would be interesting but are not essential).

Description (used by animals, stocked with fish, with inflow from ditches, just below a weir, flocks of ducks and anything else which seems relevant.
Any available information on the age of a pond, or its origins (brick-pit, railway excavation, subsidence flash, ornamental lake etc.) is also valuable in explaining the pondsnail fauna.

Anyone who would like to participate in a survey of local freshwater snails should send their records to either author, or leave them with Doncaster Museum. It is hoped that naturalists will be able to identify their catch themselves, but we would be glad to assist either with difficult species, or with whole gathering: empty, dried shells are most pleasant to handle, but material still alive, or dead, in a jar of water is quite adequate to identify (if a little messy to deal with).

Acknowledgements

We wish to thank Mr P Skidmore for allowing access to the collections of Doncaster museum, and for allowing us to use unpublished records from the museum files. Chris Robinson was also a great help in extracting records from the files and collections and also made useful contributions to field work.

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Young Specialist Series, Burke, London

Kerney M.P.ed(1976) Atlas of the non-Marine Mollusca of the British Isles.
Inst.Terr.Ecol. Cambridge.

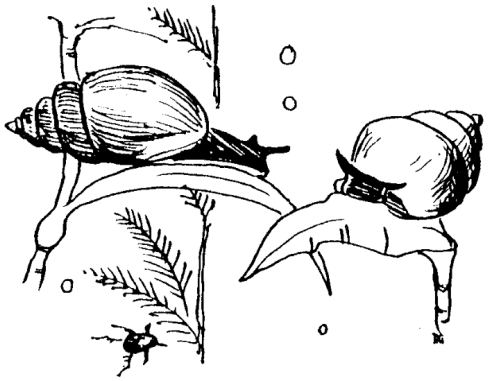
Kerney M.P.&Stubbs (1980) Conservation of Snails, Slugs and Freshwater Mussels
Nature Conservancy Council, London.

Macan T.T (1977) A Key to the British fresh- and brackish-water Gastropods
Freshwater Biological Association
Sci.Publ. 13, Kendal

This is the most convenient and certainly the cheapest (currently 60 pence) guide to freshwater snails. Well illustrated and usually very effective in identifying inland

species(a few brackish-water species are omitted). The only serious error relevant to Doncaster district is:- Fig.3 labelled Valvata cristata is,in fact, an unridged Armiger crista. V.cristata is not figured and the description given in the key is inaccurate: identify it by the presence of a lid(operculum) in the mouth of the shell. And do not expect all A.crista to look like Fig.11 c.(var.nautileus).
Bearing this point in mind one should have no difficulty in using the key.

Riley T.H.(1981) Molluscs in Zasada K.A. & Smith eds. Freshwater Invertebrates of the Sheffield District
Sorby Record Special Series No.4.



TUMMY UPSET ! WELL I TOLD YOU TO KEEP OFF THAT OLD RUSTY BIKE. ITS THE RUBBER YOU KNOW !

DONCASTER NATURALISTS' SOCIETY EVENTS 1982-1983

(Unless otherwise stated all indoor meetings are held at D.M.I.H.E. Waterdale, 7.15 - 9.00 p.m.)

1982		1983	
Oct.12th	R.S.P.B.Big Night Out Films,Chat-Show etc. Civic Theatre 7.30 p.m. Tickets £1 Adults, 60p children, available from Doncaster Museum	Jan 5th	Cave Elephants and other mysteries. Dr Ian Redmond of T.V.and Radio fame.
		Jan 19th	Flowers from the Mediterranean Jim Griffith
Oct 20th	Life in a Cow Pat! The ecology of a fertile habitat. Peter Skidmore,M.A. M.Phil.	Feb 2nd	Birds of the Western Isles An Ornithological Trip to the Western Irish Islands John Hartley M.B.O.U.
Oct 30th	What the Cat Brought In. Mammal projects for Young Naturalists (of all ages!) Joint Meeting with the Mammal Society at Doncaster Museum, Chequer Road, 1.30 - 4.30 p.m.	Feb 16th	Short Papers by Members
		March 2nd	Blacktoft Revisited Andrew Grieve R.S.P.B. Warden at Blacktoft Sands Nature Reserve
		Mar 6th	Mountain Hare Walk Details later
Nov 3rd	Natural History Photographic Exhibition and Slide Show.	Mar 16th	Presidential Address 'Exploits among the Mountain Tops' Don Bramley
Nov 17th	On the Trail of Scottish Pine Martens. Stuart Collier of the Yorkshire Mammal Group.	Mar 30th	A.G.M. and Spring Exhibition.
Dec 1st	Natural History Lecture Peter Seccombe,Y.N.T. Chief Warden for South Yorkshire.		
Dec 15th	Quiz and Conversazione		

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For further details of meetings contact: C.A.Howes, Museum and Art Gallery, Chequer Road, Doncaster. Telephone: 62095

EDITORIAL

This first edition of'The Doncaster Naturalist' has been produced as a joint effort of the Committee of the Society. Thanks are due to members who have contributed articles and sketches - and to David Gagg for the cover design, 'funnies' and help with the layout: also to Colin Howes for acting as receiver of contributions at the museum.

We hope to produce our second publication in the spring. Some articles are already accepted for this next magazine. Any further contributions to me, or Colin Howes, at the museum before JANUARY 31st 1983, please.

D.M.BRAMLEY

Editor.