CLEVELAND NATURALISTS'

FIELD CLUB

RECORD OF PROCEEDINGS

Volume 13 Part 1 **Spring 2023**

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THE OFFICERS AND COMMITTEE 2021-2022

President	Mark Stokeld, 38 Ash Grove, Kirklevington, Yarm, TS15 9NQ
Vice-president	Jo Scott, Tethers End, Hartburn Village, Stockton, TS18 5DR
Secretary	Eric Gendle, 13 Mayfield Road, Nunthorpe, TS7 0ED
Treasurer	Hazel Stokeld, 38 Ash Grove, Kirklevington, Yarm, TS15 9NQ
Membership Secretary	Eric Gendle, 13 Mayfield Road, Nunthorpe, TS7 0ED
Programme Secretary	Neil Baker, 9 Glaisdale Court, Darlington, DL3 7AD
Immediate Past President	Jo Scott, Tethers End, Hartburn Village, Stockton, TS18 5DR
Ordinary Members	Daphne Aplin

Membership Details

The Club seeks to promote an interest in all branches of natural history and to assist members in finding out about the living things that they see in the countryside around them. The present membership includes those who have particular interests in birds, insects, slugs and snails, lichens, fungi, flowering plants, mosses and liverworts. Members with interests in other fields would be very welcome.

In spring and summer there are evening, half-day and whole-day visits to investigate the natural history of a particular area. During the winter months there is a series of meetings held in the Nunthorpe Methodist Church Hall, Connaught Road, Nunthorpe, Middlesbrough TS7 0BP. If you have any difficulty getting to this venue, please speak to any committee member and we will see if we can arrange a lift for you. A meeting usually takes the form of a talk given by a club member or visiting speaker. The annual subscription is £8.

Members are entitled to attend meetings of two affiliated organisations:
Yorkshire Naturalists' Union.
Tees Valley Wildlife Trust.

Details are available from Eric Gendle 01642 281235 and our website
http://clevelandnats.org.uk/

President's Address 2022 -2023

During the past year the club has gradually emerged from the remnants of the Covid pandemic. We now are successfully running our winter programme of talks but we have moved them to an afternoon slot so that we do not have to drive in the dark evenings.

At the AGM I took over from Jo Scott as the club's president and so I would like to, on your behalf, thank her for her hard work during her period of office. Hazel Stokeld has settled in as treasurer having taken over from Colin Chatto. We decided to introduce a £2 entry to the indoor meetings in order to help meet the increasing cost of hiring the meeting room. Eric Gendle, who has been our secretary for 32 years, will step down from his role at the forthcoming AGM. I, again on your behalf, would also like to thank him for his dedication and diligence in carrying out this task. We still have not filled the vacancies in the committee so I would appeal to the members to come forward and help us run the club.

Our first meeting in September (postponed till the 26th because of the Queen's Funeral) was on the Natural History of Clevelands's Millipedes and Centipedes, a subject which we found fascinating. The club helped with an exhibition at the Baltic Centre for Contemporary Art named 'Hinterlands'. This exhibition asked visitors to reflect on our relationship with the land and its ecosystems. The Foundation Press, an organisation that develops community-publishing used the club's archived Proceedings to produce a large collection of risograph prints which culminated with a four metre high 'wall' of our images at the entrance to the exhibition. The exhibition continues until 30th April. At the October meeting, the Tees Valley Wildlife Trust's Kate Bartram and Colin Gibson spoke on one of the Wildlife Trusts projects 'Bringing back the Barn Owl'. That was followed in December by a talk on the wildflowers and insects of the Vercors region of France. January's meeting was a talk on Butterfly Conservation in Northern England by David Wainwright.

The summer programme 2022 was again well attended and very varied, beginning with a visit to Mulgrave Woods followed by a woodland walk at Rievaulx Terrace, Helmsley. These were followed by visits to the Yorkshire Wildlife Trust reserve at Bolton-on-Swale, Hart to Haswell Walkway, Ashberry Hill and Billingham Beck Valley Country Park. We had two visits to the South Gare and walks to Bishop Middleham from Hardwick Hall and to Captain Cook's Monument. One of the highlights of the year was another visit to Cropton Forest Beaver project where we saw that the beavers are thriving. We combined this with another visit to Yatts Farm to see a variety of orchids and butterflies. The latter half of the season took us on visits to Fen Bog, Stokesley loop, Saltburn rockpools and Rosedale where we looked at the old ironstone industrial site. The outings were rounded off with a visit to Wykeham Lakes with the Yorkshire Dragonfly Society.

The club now has a Twitter account '@clevelandnats' where we post forthcoming events and also pictures and text about our outings. We have 104 followers. We need to convert some of these into members if we are to thrive as an organisation.
Finally I would like to thank the Officers and Committee and everyone who helps to make the club the success it is, especially Tony Wardhaugh who compiles the Proceedings and Dave Barlow who maintains our website.

Acknowledgements and Note to Contributors

The editor would like to thank all those who have contributed to the current issue of the Field Club Proceedings.

Contributions can include scientific articles, records, historical or biographical articles, poems, artwork, in fact anything which documents or celebrates natural history in Cleveland. These can be sent in at any time of year.

For the Spring issue in any year please send contributions by 1st March.

For electronic submissions please:

- use either MS Word or Pages, including for any tables (please do not submit tabulated information as a spreadsheet). Alternatively, send text in the body of an e-mail.
- avoid using any paragraph formatting and line spacing other than single.
- send any images as separate .jpg files with the caption as a separate Word or Pages file. These are always most welcome.
- when naming species provide the vernacular name, where a widely used one exists, followed by the appropriate scientific name in italics and bracketed. If no vernacular name exists please provide just the scientific name in italics.
- Send to tonyandmoirawardhaugh1@virginmedia.com

Where electronic submission is not possible:

Please post hand-written or typed articles to Dr A A Wardhaugh, 13 Captain Cook's Crescent, Marton, Middlesbrough TS7 8NN.

Highlights of 2022 Field Meetings

Wednesday 20th April 10:30 am. Mulgrave Woods (NZ862125).
Leader, Neil Baker.
This was the Club's first field trip on our summer programme and it couldn't have been a more perfect day. The weather was fine as well as very mild and altogether most suitable for a spring walk through some excellent woodland, both natural but also with plentiful evidence of landscaping and management applied by the Mulgrave estate over many years.

There were eleven of us on the walk, including two members of the Whitby Naturalists, whose local knowledge and botanical expertise were very welcome in helping improve our appreciation of the day.

We walked into the woods from the main entrance by the road bridge over East Row Beck in Sandsend and slowly meandered our way up to the old ruined Mulgrave Castle, with some excellent views of the surrounding estate from that high vantage point. Rather than retrace our steps back to the start, we went through the tunnel and over the bridge and followed Sandsend Beck to get back to our cars by a circular route. There were different things to see on both the way in and the way out, so this made our day out doubly worthwhile.

On the way up to the castle, one of our members stopped to pay close attention to a weevil. While doing so he somehow managed to lose the top off his water bottle. Unfortunately he didn't notice this at the time when he put his bottle into his jacket pocket. He certainly noticed when we paused at the castle and he found he had a soaking wet pocket. The good news is that we found his missing bottle top for him as we made our way back down from the castle, which helped prevent matters getting any worse.

There were many plants to appreciate on the walk and some particularly fine specimen trees. These included Lebanese Cedar, with some superbly attractive cones available to be collected from the base of the tree, and some very mature Magnolias in full brilliant colours. The mild weather also meant there were plenty of insects about too. There were many Bee Flies, which are always lovely to see, as well as a good selection of butterflies, both basking in the sun and on the wing.

A fairly comprehensive list of most of the observations made by Club members is shown below.

Alexanders	*Smyrnium olusatrum*
Barren Strawberry	*Potentilla sterilis*
Bee fly	*Bombylius major*
Beetle	*Poecilus cupreus.*
Blackcap	*Sylvia atricapilla*
Bluebell	*Hyacinthoides non-scripta*
Broad Buckler Fern	*Dryopteris dilatata*
Bugle	*Ajuga reptans*
Bumblebees (several different ones)	
Buzzard	*Buteo buteo*

Celandine	*Ficaria verna*
Chaffinch	*Fringilla coelebs*
Chiffchaff	*Phylloscopus collybita*
Coltsfoot	*Tussilago farfara*
Comma butterfly	*Polygonia c-album*
Common Dog Violet	*Viola riviniana*
Crosswort	*Cruciata laevipes*
Cuckoo Flower	*Cardamine pratensis*
Dandelion	*Taraxacum* sp.
Dogs Mercury (M&F)	*Mercurialis perennis*
Early Dog Violet	*Viola reichenbachiana*
Early Purple Orchid	*Orchis mascula*
Enchanter's Nightshade	*Circaea lutetiana*
Forget-me-not	*Myosotis* sp.
Fly	*Gymnocheta viridis.*
Giant Horsetail (just starting to show)	*Equisetum telmateia*
Great Woodrush	*Luzula sylvatica*
Greater Stitchwort	*Stellaria holostea*
Ground Ivy	*Glechoma hederacea*
Hairy St John's-wort	*Hypericum hirsutum*
Herb Robert	*Geranium robertianum*
Honeysuckle	*Lonicera periclymenum*
Hoverfly	*Eristalis pertinax* M & F
Ivy-leaved Toadflax	*Cymbalaria muralis*
Lebanon Cedar	*Cedrus libani*
Lesser Stitchwort	*Stellaria graminea*
Lichen	*Evernia prunastri*
Lichen	*Lepraria incana*
Lichen	*Ochrolechia parella*
Lichen	*Physcia adscendens*
Lichen	*Porpidia tuberculosa*
Lichen	*Ramalina farinacea*
Lichen	*Xanthoria parietina*
Magnolia trees (both pink and white)	*Magnolia* sp.
Meadow Foxtail grass	*Alopecurus pratensis*
Mining bees	
Opposite-leaved Golden Saxifrage	*Chrysosplenium oppositifolium*
Orange Tip butterfly	*Anthocharis cardamines*
Peacock butterfly	*Inachis io*
Pendulous Sedge	*Carex pendula*
Primrose	*Primula vulgaris*
Ramsons	*Allium ursinum*
Scaly Male Fern	*Dryopteris affinis*

Soft Shield Fern	*Polystichum setiferum*
Song Thrush	*Turdus philomelos*
Speckled Wood butterfly	*Pararge aegeria*
Sweet Cicely	*Myrrhis odorata*
Toothwort	*Lathraea squamaria*
Weevil	*Barynotus moerens.*
Wild Arum	*Arum maculatum*
Wild Strawberry	*Fragaria vesca*
Winter Heliotrope	*Petasites fragrans*
Wood Sedge	*Carex sylvatica*
Wood-sorrel	*Oxalis acetosella*

Early Purple Orchid (Mark Stokeld)

Toothwort (Mark Stokeld)

Saturday 30th April 10:30 am. Rievaulx Terrace (SE579851).
Leader, Tony Wardhaugh.

Twelve members attended this meeting on a mild and sunny day. We began by walking south through the area of woodland at the back (i.e. the east side) of the terrace to its southernmost end and then returned along the edge of the terrace bank which is managed as a meadow.

Flowering plants recorded in the woodland area

Wild Garlic	*Allium ursinum*
Dog's Mercury	*Mercurialis perennis*
Bluebell	*Hyacinthoides non-scripta*
Dandelion	*Taraxacum* sp.
Wild Gooseberry	*Ribes uva-crispa*
Woodruff	*Galium odoratum*
Wood Speedwell	*Veronica montana*
Common Dog Violet	*Viola riviniana*
Garlic Mustard	*Alliaria petiolata*
Wood Forget-me-not	*Myosotis sylvatica*
Primrose	*Primula vulgaris*
Early Purple Orchid	*Orchis mascula*
Solomon's Seal	*Polygonatum* sp.
Mountain Currant	*Ribes alpinum*
Green Hellebore	*Helleborus viridis*
Snowdrop	*Galanthus nivalis*
Wild Arum	*Arum maculatum*
Herb Bennet	*Geum urbanum*
Butcher's Broom	*Ruscus aculeatus*
Red Campion	*Silene dioica*
Herb Robert	*Geranium robertianum*
Goldilocks	*Ranunculus auricomus*
Celandine	*Ranunculus ficaria*

Flowering plants recorded on the terrace bank

Cowslip	*Primula veris*
Primrose	*Primula vulgaris*
False Oxlip	*Primula veris* x *vulgaris*
Dandelion	*Taraxacum* sp.
Wood Forget-me-not	*Myosotis sylvatica*
Daisy	*Bellis perennis*
Barren Strawberry	*Potentilla sterilis*
Bugle	*Ajuga reptans*
Dog's Mercury	*Mercurialis perennis*
Bluebell	*Hyacinthoides non-scripta*
Lady's Mantle	*Alchemilla vulgaris*
Lesser Celandine	*Ranunculus ficaria*
Crosswort	*Cruciata laevipes*
Early Purple Orchid	*Orchis mascula*
Ground Ivy	*Glechoma hederacea*
Common Dog Violet	*Viola riviniana*
Common Fleabane	*Pulicaria disenterica*
Common Field Speedwell	*Veronica persica*

Early Purple Orchid was extensive on the terrace bank; in the woodland just four plants were seen, these amid the roots of a large beech tree at SE57961.84870. Thanks to Ruth Waterton for many of the above records.

Birds noted included a Green Woodpecker (*Picus viridis*) heard calling from the car park, Treecreeper (*Cinclus cinclus*), Nuthatch (*Sitta europea*), Chaffinch (*Fringilla coelebs*), Blackbird (*Turdus merula*), Rook (*Corvus frugillegus*), Chiffchaff (*Phylloscopus collybita*), Blackcap (*Silvia atricapilla*), Wren (*Troglodytes troglodytes*) and Jackdaw (*Corvus monedula*). One, possibly two Red Kites (*Milvus milvus*) and a Sparrowhawk (*Accipiter nisus*) were seen flying over the Rievaulx abbey area. A Song Thrush (*Turdus philomelos*) anvil was found in the wood, where there were broken shells of the snails *Cepaea hortensis* and *Arianta arbustorum.* Shells of the minute snails *Vallonia costata* and *Cecilioides acicula* were found in rabbit scratchings along the upper edge of the terrace bank. For a list of other molluscs and also millipedes seen, see page 44 below.

In the wood, Alan Simkins pointed out an old piece of the bracket fungus *Ganoderma applanatum,* which was found on the ground, and he described to us how it can be identified to species level owing to the presence of galls on the undersurface. Other fungi, also found by Alan, included *Daldinia concentrica* and *Diatrype disciformis*.

Honeybees (*Apis mellifera*) were seen in considerable numbers entering and leaving a cavity in an Ash tree on the upper edge of Terrace Bank Wood (i.e. the area of woodland below the terrace itself), an evident nest site.

For the afternoon eight members remained in the area and we moved down to Rievaulx village. Here we walked along the footpath from the village to Bow Bridge, returning by the same route.

Flowering plants recorded

Red Dead-nettle	*Lamium purpureum*
Lesser Celandine	*Ranunculus ficaria*
Marsh Marigold	*Caltha palustris*
Greater Stitchwort	*Stellaria holostea*
Primrose	*Ranunculus vulgaris*
Bluebell	*Hyacinthoides non-scripta*

Daisy	*Bellis perennis*
Wood Anemone	*Anemone nemorosa*
Wood-sorrel	*Oxalis acetosella*
Goldilocks	*Ranunculus auricomus*
Ground Ivy	*Glechoma hederacea*
Common Dog Violet	*Viola riviniana*
Wild Garlic	*Allium ursinum*
Barren Strawberry	*Potentilla sterilis*
Water Avens	*Geum rivale*
Crab Apple	*Malus sylvestris*
Dog's Mercury	*Mercurialis perennis*
Opposite-leaved Golden Saxifrage	*Chrysosplenum oppositifolium*
Horse Chestnut	*Aesculus hippocastanum*

Two fungi were seen on this short walk; Turkey Tail (*Tramates versicolor*) on a long-fallen log and the slime mould *Enteridium lycoperdon*.

Enteridium lycoperdon

Birds noted included Goldfinch (*Fringilla fringilla*), Chaffinch (*Fringilla coelebs*), Willow Warbler (*Philoscopus trochilus*), Tree Sparrow (*Passer montanus*), Swallow (*Hirundo rustica*), Blackbird

(*Turdus merula*) and Song Thrush (*Turdus philpmelos*).

Of the molluscs found, by far the most interesting was a single live Lapidary Snail (*Helicigona lapicida*) found by Andy Ferguson in grass at the base of a mounting stone by the stables at SE57529.85092. This snail is very scarce in vice-county 62 with only one other currently known extant colony which was found on 15.05.2019 on a previous CNFC meeting in the Oldstead area. There are, however, two old records of *H. lapicida* having been found somewhere in the Rievaulx area (see CNFC Proceedings 2020, pages 66 - 69) and so it was very pleasing that Andy found this individual, showing that the species is still present in Rievaulx. As a post-script, on 18.05.2022 a brief search of the dry-stone wall by the roadside in front of the stables was made and a single empty shell of *H. lapicida* was found. This is not a small species of snail but it can be very elusive and further searching of dry-stone walls in this area would be well worthwhile, especially during or just after wet weather when these snails can sometimes be easier to locate.

Helicigona lapicida
Rievaulx Village
30.04.2022

Wednesday 4th May 10:30 am. Bolton-on Swale (SE249987)
Leaders, Mark and Hazel Stokeld.

Green-veined White
Pieris napi
Bolton-on Swale
04.05.2022
(Mark Stokeld)

Wednesday 11th May 10:30 am Hart to Haswell Walkway (NZ483363)
Leader, Daphne Aplin.

A group of eight met to explore a section of this popular disused Railway track which forms part of the Sustrans National Cycle Network (Route 14). A major highlight of the day was David Miller sweep-netting the larva of a Holly Blue Butterfly (*Celastrina argiolus*) from Ivy at lunch time. Needless to say all thoughts of lunch vanished as we gazed at and photographed this little beauty which I believe was a "first" sighting for all of us. I will list Dave's extra finds separately.

Holly Blue Butterfly larva

Lepidoptera: Butterflies: Orange Tip (*Anthocharis cardamines*), Speckled Wood (*Pararge aegeria*), Common Blue (*Polyommatus icarus*), Small White (*Pieris rapae*), Green-veined White (*Pieris nap*i). Moths: 2 x *Ancylis badiana.*

Hemiptera: *Cercopis vulnerata.*

Coleoptera: *Byturus* sp. on Dandelion, 7-spot Ladybird (*Coccinella septempunctata*) and 14-spot Ladybird (*Propylea quatuordecimpunctata*).

Miridae: 1 x *Calocoris alpestris* nymph on Stitchwort

***Calocoris alpestris* nymph**

Mollusca: Amber Snail (*Oxyloma elegans*), Juvenile Garden Snail (C*ornu aspersum*) and Copse Snail (*Arianta arbustorum*).

Flowers: Black medick (*Medicago lupulina*), Cowslip *Primula veris*), Bulbous Buttercup (*Ranunculus bulbosus*), Meadow Buttercup (*Ranunculus acris*), Beaked Hawksbeard (*Crepis vesicaria*), Marsh Marigold (*Caltha palustris*), Woodruff (*Galium odoratum*), Carline Thistle (*Carlina vulgaris*), Hemp Agrimony (*Eupatorium cannabinum*), Enchanter's Nightshade (*Circaea lutetiana*), Dog's Mercury (*Mercurialis perennis*), Wood Anemone (*Anemone nemorosa*), Red Campion (*Silene dioica*), Hedge Woundwort (*Stachys sylvatica*) and Lords and Ladies (*Arum maculatum*).

David Miller's List:

1 x Holly Blue larva (*Celastrina argiolus*), 3 x *Calocoris alpestris* Nymphs, 5 x *Cantharis decipiens*, 1 x Male *Dicyphus stachydis*, 2 x *Pentatoma rufipe*s Nymphs, *Stenodema laevigata*, *Phyllobius* sp. Drinker Moth larva (*Euthrix potatoria*), *Liocoris tripustulatus*, *Anthocoris nemorum*.

Of the millipedes noted (see page 44 below) *Cylindroiulus londinensis* is of interest, being locally distributed in Britain and scarce in the north. It has been known for some time to occur nearby in Crimdon Dene (see page 76 below) and its occurrence on the Hart to Haswell Walkway represents an extension to its known range at what is one of only two sites where it has been located in VC66, the other being Castle Eden Dene. It is unknown in VC62.

Speckled Wood, Hart to Haswell Walkway (Mark Stokeld)

Wednesday 18th May 10:30 am. Ashberry Hill (SE571844)
Leader, Eric Gendle.
Of the many flowering plants seen, Toothwort (*Lathraea squamaria*) was found growing beneath Hazel in the wood (SE57292.84947) and Lily-of-the-Valley (*Canvallaria majalis*) in an extensive bed among much Wild Garlic (*Allium ursinum*) by the roadside from SE56720.85370 to SE56733.85356. The subjective impression is that this bed has increased in size in recent years.

It was pleasing to find a live Round-mouthed Snail (*Pomatias elegans*) in leaf litter by the edge of the road on Ashberry Hill at SE56578.85610 and an empty shell nearby. This is a known site for this species, here at the northern limit of its range in Britain. Its only other known extant colony in VC62 is in Forge Valley (near Scarborough) at the almost identical latitude.

A small ladybird, the Pointed-keeled Rhyzobius (*Rhyzobius litura*) was found near Ashberry Farm at SE5706.8441.

Wednesday 25th May 10:30 am. Billingham Beck Valley Country Park (NZ454228)
Leader, David Laing

Spindle Ermine caterpillars
Yponomeuta cagnagella
Billingham Beck
(Mark Stokeld)

Northern Marsh Orchid
Dactylorhiza purpurella
Billingham Beck
(Mark Stokeld)

A single shell of the Hairy Snail (*Trochulus hispidus*) was found in grass at the base of a rocky area at NZ4533.2283. The shell conformed to the appearance of *T. sericeus* which, for a long time, was considered to be a separate species but now thought to be merely a variety of *T. hispidus.*

Wednesday 1st June 6:30 pm. Portrack Marsh (NZ462193)
Leader Neil Baker.
The Club had a pleasant evening walk around Portrack Marsh. This area adjacent to the river Tees is a very good site for nature, sandwiched as it is between busy parts of Stockton and Middlesbrough. Surprisingly, even though it is so very close to urban areas, it does not appear to suffer from anti-social behaviour and it is often possible to enjoy a quiet and peaceful stroll along the footpaths and appreciate what nature has to offer.

There were 13 of us present, which was a good turnout for a short 2 hour evening walk.

One of the highlights of this walk are the Bee Orchids just down from the Talpore Hotel on the path to the river, even before getting onto the more wild marsh proper. It is pleasing to see them still there each year as there is always the fear that they may be lost through some over-zealous landscaping of the area.

Another interesting sight was the presence of some Common Terns nesting on one of the small islands in the middle of one of the ponds. Adults were observed returning with beaks full of small fish to feed their young. Presumably these were probably caught just down river from the Barrage, which is only a relatively short distance away as the Tern flies.

A list of what was observed is provided below, as noted during an anticlockwise circuit of the reserve.

Bee Orchids
Specked Wood butterfly
Robin in Elderflower
Swans (2)
Flag Iris
Reed Bunting
Water Crowfoot
Common Tern
Whitebeam
Mayweed
Wood Pigeons
Early Purple Orchids
Coots with young (3)
Magpies (3)
Mallard with young (8)
Common Terns nesting on island
Kestrel

Bee Orchid
Ophrys apifera
Portrack Marsh
(Mark Stokeld)

Wednesday 8th June 10.30 am. Hardwick Country Park, Sedgefield (NZ344287)
Leader, Jo Scott.
The weather for this outing was not good so only four members turned up on the day. The same four had recced the outing the week before so we decided to go to Bishop Middleham Quarry instead.

Species recorded included: Northern Brown Argus Butterfly (*Aricia artaxerxes*), Common Blue Butterflies *Polyommatus icarus*), Blue-tailed Damselfly (*Ischnura elegans*), Twayblades (*Neottia ovata*) and various insects including: Red and Black Froghopper (*Cercopis vulnerata*), Hairy Shieldbug (*Dolycoris baccarum),* Longhorn Beetle (*Agapanthia vilosoviridescens*), moth (*Grapholita compositella)*, moth (*Neocochylis dubitana*) and a Puss Moth/Sallow Kitten- the First instars are very striking but similar.

Puss Moth/Sallow Kitten first instar caterpillar

Dingy Skipper Bishop Middleham (Mark Stokeld)

Northern Brown Argus
Bishop Middleham
(Mark Stokeld)

Wednesday 15th June 10:30 am. South Gare (NZ556277)
Leader, Jo Scott.
A small group of members met to have a look in the pools at South Gare which never disappoints.

Among the species of seaweed recorded were Sea Beech (*Delessaria sanguinea*), Sugar Kelp (*Laminaria saccharina*), Oarweed (*Laminaria digitata*), Pincer Weed (*Ceramium rubrum*), Bladder Wrack (*Fucus vesiculosus*), and Serrated Wrack (*Fucus serratus*). Two common Sea Mats were found growing on the wracks *Membranipora membranacea* and *Electra pilosa*. The sand by the water's edge is always crowded with Sand Mason Worms (*Lanice conchilega*). The invasive solitary Sea Squirt (*Corella eumyota*) was found on the rocks along with numerous Tubeworms (*Pomatoceros triqueter*). The Sea Hare (*Aplysia punctata*) and Butterfish (*Pholis gunellus*) were spotted in the rock-pools.

After lunch we explored the blast furnace slag behind the dunes. Plants included Meadow Rue (*Thalictrum flavum*), Blue Fleabane (*Erigeron acer*), Northern Marsh Orchid (*Dactylorhiza purpurella*), Pyramidal Orchid (*Anacamptis pyramidalis*), Purple Milk Vetch (*Astragalus danicus*) and the rare Childing Pink (*Petrorhagia nanteulii)*. Butterflies were scarce but we recorded Common Blue (*Polyommatus icarus*), Small Heath (*Coenonympha pamphilus*) and Dark Green Fritillary (*Speyeria aglaja*).

Solitary Sea Squirt
Corella eumyota

Rockpools and sea edge	
Bladder Wrack	*Fucus vesiculosus*
Butterfish	*Pholis gunellus*
Chiton	
Lava bread	*Porphyra sp (a)*
Oarweed	*Laminaria digitata*
Pincer weed	*Ceramium rubrum*
Sand Mason Worm	*Lanice conchilega*
Sea beech	*Delesseria sanguinea*
Sea Hare	*Aplysia punctata*
Sea Lettuce	*Ulva lactuca*
Sea Mat	*Membranipora membranacea*
Sea Mat	*Electra pilosa*
Serrated Wrack	*Fucus serratus*
Solitary Sea Squirt	*Corella eumyota*
Sugar Kelp	*Laminaria saccharina*
Tube Worm	*Pomatoceros triqueter*

Blast Furnace Slag	
Toadflax	
Alexanders	*Smyrnium olusatrum*
Bird's-foot Trefoil	*Lotus corniculatus*
Biting Stonecrop	*Sedum acre*
Buckshorn Plantain	*Plantago coronopus*
Bulbous Buttercup	*Ranunculus bulbosus*
Carline thistle	*Carlina vulgaris*
Catsear	*Hypochaeris radicata*
Childing Pink	*Petrorhagia nanteulii*
Common Storksbill	*Erodium cicutarium*
Meadow Rue	*Thalictrum flavum*
Mignonette	*Reseda lutea*
Milk Vetch	*Astralagus danicus*
Mouse- Ear Chickweed	*Cerastium fontanum*
Northern Marsh Orchid	*Dactylorhiza purpurella*
Red Valerian	*Centranthus ruber*
Sea Milkwort	*Glaux maritima*
Wood Sage	*Teucrium scorodonia*
Yarrow	*Achillea millefolium*
Yellow Rattle	*Rhinanthus minor*
Common Blue	*Polyommatus icarus*
Green-veined white	*Pieris napi*
Small Copper	*Lycaena phlaeas*
Small Heath	*Coenonympha pamphilus*

Yellow-tail Caterpillar *Euproctis similis*
South Gare (Mark Stokeld)

Starling
South Gare (Mark Stokeld)

The following article by Deborah Bower first appeared in the summer 2022 edition of Mimazina, the online magazine produced by MIMA. For further details see https://mima.art/wp-content/uploads/2021/08/MIMAZINA-29-Summer.pdf

FIELD TRIP

Debbie and Mat have a day out with one of the oldest clubs in Teesside - Cleveland Naturalist Field Club.

Words: Deborah Bower/ Images: Deborah Bower / Joyce Scott

Joyce Scott, our leader for the outing showing us different types of seaweed

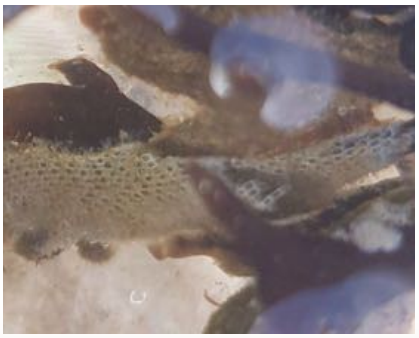
It could not have been a finer day when we arrived at South Gare to meet the Cleveland Naturalist Field Club. We were typically running a bit late and it was the first time we had been to South Gare. We parked up amongst the caravans, with their owners sat in fold out chairs outside them. We looked around and noticed a small group of people on the sand by the water huddled over a bucket looking at something intently. We decided that must be them and headed towards them carrying our shoes with warm sand underfoot.

We were warmly welcomed and introduced to everyone. Straight away they started showing us what their finds were so far; sea hare, green leaf worm egg sac, hermit crab, various types of sea weeds with Electa pilosa (sea mat) on it and some flat periwinkle eggs. We listened and photographed things and I wrote down some notes in my phone thinking how will I ever remember all of this?! I made notes to try and help. 'Donut

looking things = flat periwinkle eggs', 'Wormy piles = sea hare eggs' and so on. The collective knowledge of the group – and any individual – is amazing. Lots of them had their own specific interests or specialities. Daphne told us how hers was true bugs. 'Are they beetles?' I asked, no she told me, they are the ones who don't have pincers or bite, they pierce or suck things. A shield bug is a true bug for example. She told us about how she is currently learning about hover flies and points one out later on the walk which I would have otherwise mistaken for a bee.

Photo: Joyce Scott / Sea hare: A marine snail that actually has a soft internal shell. Joyce's picture really captures the rhinophores that look like tall ears, giving it its name.

Mat and I walked around in the water noticing things that kept bumping into our feet making us jump and well, basically shriek a lot. The others, all in wellies, point to some tiny flat fish and we began to see them all over the sand bed so well camouflaged. So still and then a cloud of sand as they dash off. The conversation turned to the worrying absence of crabs. They discussed what might be killing wildlife in the water and the fishermen's troubles in Whitby; is it the dredging? Is it old industrial chemicals being dredged up? Many of them have been in the club for decades. It is so spectacular to think of these people, watchers of nature, looking out and keeping an eye for things, recording what is there, noticing what isn't.



Look carefully at this piece of seaweed and you can see it has this patterned growth on it called Electa pilosa. Each little pocket houses a tiny a creature called a zooid.

We sat for lunch and a passerby pointed out the dolphins; someone lent me their binoculars and I got to see them. I'm not sure I've seen a dolphin before. Surely, I would remember if I had. Joyce, the leader of the trip, told us that we had a mission for the afternoon – to find a tiny pink flower called a Childing Pink. She knew where it should be, a very specific spot where they were sighted the year before. We set off past the fisherman's huts, across the sandy grass between the water and the blast furnace. The sound of the birds was amazing, there were skylarks constantly in the air who are nesting in the grass. Though peaceful there, I felt worried for them with the dog ownership boom. The next few hours were dedicated to flora and insects. Some that I recognised but most that I did not know. We came

These donut like rings actually contain lots of little Flat Periwinkle eggs and were found on some seaweed.

Bee Orchid / photo: Joyce Scott

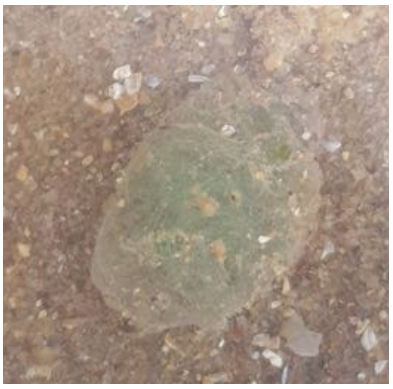

5 spot burnet moth


Cocoon with its pupa inside

across lots of pyramidal orchids, very sweet bee orchids and later in another patch we found many northern marsh orchids. They are all so fancy looking! Then there was the beautiful biting stonecrop - such a brilliant yellow, they radiated sunshine. They pointed out the yellow rattle and told me how it was parasitic to grass, perfect for a wild meadow where you don't want grass to take over.

Joyce held up a burnet moth to me, red spots set against an iridescent black. Someone else showed me a cocoon with a caterpillar changing inside. A few steps on we found an empty one, its occupant already gone. Mat found a very beautiful caterpillar sat on some sea buckthorn, such vibrant orange against black. Whilst we were looking we heard an excited cry further ahead. We figured they had found the Childing Pink and hurried along. Indeed they had, a very tiny pink flower, a collection of them just in this one spot. I would never have thought anything of it if I had walked past by myself. The group carrying notepads wrote it down to add to their list of things they have seen that day. I found out that they always do this and you can in fact look through the lists of all the things they have found over the years on their website - all the way back to 1881. I'm definitely joining them again, they meet most weeks and have a really excellent schedule of walks and meetings on their website. I'm used to getting excited about the natural world with my kids, but it was a rare treat to get to share this with some grown ups.

Special thanks to Cleveland Naturalist Field Club.
Find out more about the club here:
http://clevelandnats.org.uk/



Clockwise from above:

GREEN LEAF WORM EGGS

PYRAMIDAL ORCHID

YELLOW RATTLE

YELLOW TAIL CATERPILLAR

CHILDING PINK

CRAB SHELL

IRISH MOSS

FLAT FISH
(WELL CAMOUFLAGED!)

SEA HARE EGGS

BITING STONECROP

Wednesday 22nd June 1:30 and 6.30 pm. Cropton Forest (SE783894)
Leader, Neil Baker.

The Club enjoyed our first visit to the Cropton Forest Beaver Project in 2021 so much that another visit was organised in 2022. This gave several members the chance for a repeat visit and also provided the opportunity for others to attend who missed out the previous year owing to the restriction on numbers.

Last year there was both a morning and afternoon session organised to explore the surrounding areas in addition to the evening visit to see the beavers. However, it was found to be too much of a long day and so this year just an afternoon and evening session were planned.

There were twelve members expected to attend the event. Unfortunately, owing to illness and mobility issues four members had to drop out, so only eight of us made the long trip down to Cropton Forest

Once again it was a lovely fine day and it looked as though we were all in for a treat.

For the afternoon session we decided on a visit to Yatts Farm again, the same as we did last year. This is a privately owned site and the wooded area behind the farm is generally good for both plants and butterflies. It is not hard to spot where some of the rarer plants are because visits from other naturalists and photographers result in easy to see trodden grass leading up to them. There was not such a lot to see this year as we found last year, but the following sightings were made.

Cat's Ear
Speckled Wood butterfly
Yellow Shell moth
Small Heath butterfly
Meadow Brown butterfly
Pyramidal Orchid
Chimney Sweep moth
Common Blue butterfly
Thyme
Greater Plantain
Silverweed
Elderflower
Red Campion
Ground Elder
Twayblade
Greater Butterfly Orchid
Milkwort
Dark Green Fritillary butterfly
Small Tortoiseshell butterfly
Small Scabious
Lady's Bedstraw
Fragrant Orchid
Small Skipper butterfly
Fly Orchid

There were also some insects noted at the farm by Daphne Aplin:
Hummingbird Hawkmoth *Macroglossum stellatarum*
Ferruginous Bee-grabber *Sicus ferrugineus* M&F
A fly *Urophora stylata*
and two hemipterous bugs at the car park:
Grypocoris stysi Nymph
Calocoris alpestris Adult

Unfortunately, one of our members suffered a car breakdown and missed the visit to see the beavers while waiting for the RAC to turn up.

Those who did make it to see the beavers were accompanied once again by Cath Bashforth, the ecologist for the project. She advised that the area of activity for the beavers had changed since last year so it was best to restrict the walking round within the enclosure to limit disturbance. This meant that it was not possible to get such a close up look at the dam as last year, which was a shame as it was truly a magnificent display of beaver engineering.

However, the beavers put in a fine performance. Our Club members had very good views of two of the beavers feeding and grooming throughout almost all the time they were watching.

The only other thing to report is that the RAC had still not turned up by 01:00 in the morning. Giving them up as a bad job, the car was nursed back as far as Helmsley (fortunately it was on the level or downhill most of the way, which compensated for the loss of power) and left there in the car park overnight to arrange for the RAC to call again the next day. There was no way the car could have made it uphill out of Helmsley.

Four club members (in two cars) waited in Cropton Forest until 01:00. We were the only ones there and that in itself was an interesting experience with all the spooky sounds of a deserted forest in the middle of the night. It was a pity we didn't have our moth traps with us to help pass the time!

For information, the Cropton Forest beavers also feature in series 2 of the excellent Channel 5 documentary 'Secret Life of the Forest'. This is showing live in four episodes from 15/02/2023 to 08/03/2023, but also available afterwards on the internet until 12/08/2027.

Beaver
Cropton Forest
(Mark Stokeld)

Greater Butterfly Orchid
Platanthera chlorantha
Yatts Farm
(Mark Stokeld)

Saturday 25th June 10:30 am. Captain Cook's Monument and Percy Cross (NZ592110)
Leader, Andy Astbury.
This walk was cancelled at short notice owing to very poor weather, with as many members as possible informed by email. As it was not possible to be sure that every member who might turn up had been notified, the leader went along to the venue anyway. This was fortunate as one member did brave the conditions to get there. The weather by then had brightened up a little anyway and it was much better than the forecast, so the two of them enjoyed a short walk to make the most of the morning.

Wednesday 29th June 10:30 am. Brockadale (SE514173)
Leader, Eric Gendle.

Wednesday 13th July 10:30 am. South Gare (NZ556277)
Leader, Daphne Aplin.
A beautiful day found eight members looking for butterflies at this interesting site. (Unfortunately David Miller couldn't find us and his account follows.) There was evidence of the heatwave we have been experiencing as the grasses and flowers looked very parched. We were very fortunate to have a delightful breeze to take the heat off us. A few orchids were hanging on which were lovely to see. Large patches of very tall Harebells (*Campanula rotundifolia*) were also bright splashes of colour. We were lucky to see a few of our target species which were Dark Green Fritillary and Grayling as well as some others which are listed below:-

Butterflies: Meadow Brown (M*aniola jurtina*), Large White (*Pieris brassicae*), Small Tortoiseshell (*Aglais urticae*), Small Heath (*Coenonympha pamphilus*), Small Skipper (*Thymelicus sylvestris*), Ringlet (*Aphantopus hyperantus*), Grayling (*Hipparchia semele*), Dark Green Fritillary (*Argynnis aglaja*)

Moths: Six-spot Burnet (*Zygaena filipendulae*), Drinker moth (*Euthrix potatoria*) - unfortunately a dead larva on the track.

Birds: Linnet (*Linaria cannabina*). A Stonechat (*Saxicola rubicola*) carrying food posed nicely for photographic opportunities.

Flowers: Carline Thistle (*Carlina vulgaris*). Yellow-wort (*Blackstonia perfoliata*). Hare's-foot clover (*Trifolium arvense*). Sea milkwort (*Glaux maritima*).

Dave Miller's Account: I had a great day when I tried to join up with Daphne's visit to South Gare for the group on 13th July. It's a long time since I've been here and I was late. I'm sure the group were there somewhere but I managed to miss them! However, with sweep net in hand and camera around shoulder I plunged in to the sparse habitats that were on offer. It started off rather quiet and disappointing but on a beautiful summer's day with the sea close by it was very pleasant (and hot). My main interest was in looking for bugs (think shieldbugs and allies), many of which don't yet have English names. This doesn't make them boring however. If you've never considered real bug hunting, you'd be surprised by the diversity of form and colour in the group, though you do have to get used to looking at small things - anything over 5mm is medium-sized!

After a slow start I had a great day with the bugs and also got to admire several Grayling butterflies amongst other things. My only shieldbug was the Sloe Bug or Hairy Shieldbug and nymphs (*Dolycoris baccarum*). I hadn't seen *Myrmus miriformis* this year and to catch several, both male and female, was quite exciting (yes, it is annoying when a single species looks different according to sex). I also caught several *Trigonotylus ruficornis,* a small red grass bug with red antennae, and one *Pithanus maerkeli*, to my mind a super-smart little bug. Towards the end of my hunting I caught a couple of the Squashbug *Coriomerus denticulatus*, my first in north-east England. But the real excitement (when I got home, in the field I thought it was an obscure nymph, to be pored over later after I'd looked at the interesting things) was finding a female *Mecomma dispar*, something completely new to me and probably new to Teesside. All in all the bugs suggested to me what a remarkable place the South Gare is, and in sunny weather, it really is a treat.

Adelphocoris lineatus, *Closterotomus norwegicus* (just one, paler than usual but I doubt if it was anything else), *Coriomerus denticulatus* (2), *Dicyphus annulatus, Dolycoris baccarum*, *Leptopterna ferrugata*, *Macrophylus paykulli*, *Mecomma dispar* (1), *Myrmus miriformis*, *Nabis flavomarginatus, Pithanus maerkelii*, *Plagiognathus chrysanthemi*, *Trigonotylus ruficornis, Philaenus spumarius*, *Neophilaenus lineatus,* Seven-spot Ladybird (*Coccinella septempunctata*), Twentytwo-spot Ladybird (*Psyllobora 22-punctata*) and Six-spot Burnet (*Zygaena filipendulae*).

Grayling

Myrmus miriformis

Mecomma dispar

Wednesday 20th July 10:30 am. Fen Bog (SE857982)
Leaders, Mark and Hazel Stokeld.

Keeled Skimmer *Orthetrum coerulescens*
Fen Bog (Mark Stokeld)

Kestrel
Fen Bog (Mark Stokeld)

Sunday 24th July 10:30 am. Sandsend (NZ863126)
Leader, Andrew Ferguson.
The intended leader was unfortunately unable to attend owing to shift work commitments that could not be changed.

However, the three members who did turn up for the walk were familiar with the planned route so were happy to do it themselves as it was such a nice summer's day.

We left Sandsend car park and took the path up to the old railway station which now looks very fine, having been extremely well restored as a private residence, and followed the Cleveland Way heading north. For much of the way this is a very good level path as it follows the old railway bed, but when it reaches the tunnel that is now blocked off then the only option is to climb the steep steps leading up to the cliff path instead. This proved a real test of our ageing legs but, as we were in no hurry, we made our slow and steady way up.

We walked as far as the sign post to Lythe where we stopped for lunch. We decided to return via Lythe to make a circular walk of it instead of just returning the way we had come. In doing so, we came across a permissive path that went down through the woods, presumably returning to the railway path once more. We took this route as it seemed a better option than going via Lythe. This turned out to be the best option, even though the descent was very steep with some very high cut steps.

We all got back in one piece and throughly enjoyed the day's walk, despite all the ups and downs.

A note of what we observed on the walk is listed below.

Hemp Agrimony
Lords and Ladies
Tufted Vetch
Fleabane
Cross-leaved Heath
Ling
Harebell
Horsetail
Meadow Cranesbill
Perennial Peas
Hart's Tongue Fern
Weld
White Melilot
Meadowsweet
Wood Sage
Yarrow

Artichoke galls, Colanut galls and Spangle galls, all on young Oak trees

Comma butterfly
Meadow Brown butterfly
Red Admiral butterfly

Ringlet butterfly
Peacock butterfly
Small Heath butterfly
Painted Lady butterfly

With thanks to Daphne Aplin for her insect records from the walk:

Coccinella septempunctata Seven-spot Ladybird x 2
Closterotomus norwegicus Miridae
Plagiognathus arbustorum Miridae
Epistrophe grossulariae Male Hoverfly
Eristalis pertinax Male Hoverfly
Episyrphus balteatus Hoverfly

Epistrophe grossulariae

Wednesday 27th July 6:30 pm. Stokesley (NZ526087)
Leader, Eric Gendle.

Saturday 30th July 10:30 am. Saltburn Rockpools (NZ668216)
Leader, Jo Scott.

This was a joint event with Darlington and Teesdale Naturalists' Club. Many of the usual species were recorded but conspicuous by their absence were Shore and Velvet Swimming Crabs. This was due to the crisis that had befallen many crustacean species along the NE coast over the winter. No one cause has been associated with the deaths to date, but industrial toxins and/or an algal bloom are thought to be the cause.

Saltburn, 30 July 2022	
Barnacle	*Balanus balanus*
Beadlet Anemone	*Actinia equina*
Bishops Wig	*Desmarestia aculeata*
Bladder Wrack	*Fucus vesiculosus*
Boot Lace Worm	*Lineus longissimus*
Butterfish	*Pholis gunnellus*
Chiton (Coat-of-mail Shell)	
Cockscomb Weed	*Plocamium cartilaginium*
Common Brittlestar	*Ophiothrix fragilis*
Common Razor Shell	*Enis enis*
Common Whelk	*Buccinum undatum*
Copepod	*Idotea* sp.
Coral Weed	*Corallina officinalis*
Crab- Hermit	*Pagurus bernhardus*
Dead Man's Fingers	*Alcyonium digitatum*
Dog Whelk	*Nucella lapillus*
Dulse	*Palmaria palmata*
Dwarf Brittle Star	*Amphipholis squamata*
Gaper Shell	
Green Sea Urchin	*Psammechinus miliaris*
Gutweed	*Ulva intestinalis*
Hornwrack	*Flustra folicaea*
Laver Bread	*Porphyra* sp.
Limpets	*Patella* sp.
Oar Wrack	*Laminaria digitata*

Paddle Worm	*Phyllodoce sp.*
Piddock Shell	*Pholas dactylus*
Pincer Weed	*Ceramium rubra*
Pod Razor shells	*Enis siliqua*
Red sea-weed	*Phycodrys rubens*
Saddle Oysters	*Anomia ephippium*
Scale worm	
Scallop Shell fossils	
Sea Beech	*Delessaris sanguinea*
Sea Hare and eggs	*Aplysia punctata*
Sea Lemon and eggs	*Archidoris pseudoargus*
Sea Lettuce	*Ulva lactuca*
Sea Mat	*Electra pilosa*
Sea Mat	*Membranipora membranacea*
Sea Potato test	*Echinocardium cordatum*
Sea Slater	*Ligia oceanica*
Sea squirt	*Ciona intestinalis*
Serrated Wrack	*Fucus serratus*
Solitary sea-squirt	*Corella eumyota*
Starfish	*Asterias rubens*
Sugar Kelp	*Saccharina latissima*
Tellin shell	Tellinidae
Tube worms	*Potamaceros triqueter*
Velvet Swimming Crab (dead)	*Necora puber*
Winkles	*Littorina littoria*

Wednesday 10th August 10:30 am. Slitt Wood and West Rigg Geotrail (NY906380)
Leader, Neil Baker.
It was a nice fine sunny day to start with in Weardale and seven of us made the long trip up to Westgate for this walk.

It was too late in the season for most of the flowers, but it was a pleasant walk nonetheless, with most of the interest on the geology and lead mining past of this site.

We did not follow the full circular walk but instead walked to the head of the wooded valley and then returned the same way. We almost made it back to the cars, but we were just a bit too late and caught the start of some rain, the weather being notoriously subject to quick change in this area.

No particular notes were taken during the walk, but there were Dippers to be seen at intervals along the stream, which was short of water with it having been such a dry summer. There were also trout in some of the deeper pools along the way. With the water being very clear we were able to spot them, despite their camouflage being so effective most of the time.

With thanks also to Daphne Aplin for her usual excellent records of insects she had spotted, although there were not many to be seen.

Hemiptera:
Dicyphus stachydis Adult and Nymph
Pentatoma rufipes Adult
Anthocoris nemorum Adult
Cicadella viridis Adult Female

Diptera:
Leucozona glaucia Adult Female

Arachnida:
Leiobunum rotundum Adult Female and Male

Plecoptera:
Stonefly sp.

Wednesday 17th August 11:00 am. Rosedale (SE684990)
Leader, Alan Simkins.

Rosedale (Mark Stokeld)

Saturday 20th August 10:30 am. Byland Abbey and Cockerdale (SE549790)
Leader, Andy Astbury.
Six Club members were on the walk. It was a cool day with a light breeze. There was only a little sun, with plenty of cloud about.

A few notes were made of some of what we saw on the walk:

Sweet Chestnut
White Willow
Some fine Beech trees

Lords and Ladies
Harebell
Tormentil
Yarrow
Cat's Ear
Bird's-foot Trefoil (Eggs and Bacon)
Herb Robert
Figwort
Eyebright

Dryad's Saddle

Speckled Wood butterfly
Painted Lady butterfly

Buzzard
Treecreeper

Daphne Aplin provided the following insect records:

Beetles
1x *Phosphuga atrata*, a snail eating beetle seen at Mount Snever Observatory
1x *Coccinella septempunctata* Seven-spot Ladybird

Bugs
1x *Palomena prasina* Green Shieldbug nymph
1x *Lygocoris pabulinus*
1x *Aphrophora alni*

Moths
1x *Rivula sericealis* Straw Dot
1x *Blastobasis adustella*
1x *Spilosoma lubricipeda* White Ermine larva

Diptera
1x *Tachina fera*
1x *Eristalis pertinax* F

1x *Tipula paludosa* F

On the way back to the cars, Maureen Gendle went over to a gate to look into a farmer's field. As she did so, she said to anybody that was listening that she was going to check if it was indeed a trampoline that she had seen in there from afar. The farmer himself, who was parked up in his car close by, must have overheard her and, being a bit of a wag, he shouted out that yes, it was, and he put it in there to keep the sheep entertained! He then went on to explain that it was in fact broken but it was put to good use as the sheep liked to get in the shade underneath it to keep out of the sun, as it had been a very hot summer. So that was the reason for a sight that you don't see out in the middle of the countryside very often!

Phosphuga atrata

Wednesday 14th September 10:30 am. Wykeham Lakes (SE985829)
Leader, Neil Baker.
The Club met up with Keith Gittens of the Yorkshire Dragonfly Group for our annual joint meeting with an emphasis on dragonflies. We also usually manage to meet up at these events with Bill Hall, one of our former members who now lives down in York but unfortunately he was not able to make it.

It was a splendid day and the particular target species, the Willow Emerald Damselfly *Chalcolestes viridis*, was observed.

Keith said that Willow Emerald are now turning up at many new sites, some even as far north as Cleveland, so he advised Club members to keep an eye out for them in our local patch.

Sunday 2nd October 10:30 am. Guisborough Woods (NZ603136)
Leader, Alan Simkins.

Some Invertebrates Recorded During Field Meetings 2022

A A Wardhaugh

Key:
1 = Hardwick Hall (NZ345287) 27.02.2022
2 = Rievaulx Terrace (SE579851) 30.04.2022
3 = Rievaulx area (SE575851) 30.04.2022
4 = Hart to Haswell (NZ483363) 11.05.2022
5 = Ashberry Hill (SE571844) 18.05.2022
6 = Billingham Beck (NZ454228) 25.05.2022
7 = Portrack Marsh (NZ462193) 01.06.2022
8 = South Gare (NZ556277) 15.06.2022
9 = Yatts Farm (SE887801) 22.06 2022
10 = Stokesley (NZ526087) 27.07.2025

* = Further comments on these species can be found in the relevant filed meeting report above.

Taxon	Scientific name	1	2	3	4	5	6	7	8	9	10
Molluscs	*Aegopinella nitidula*	/			/		/				
	Anodonta cygnea	/									
	Arianta arbustorum		/*		/	/	/				
	Arion ater agg.				/		/	/			
	Arion ater seg.					/					
	Arion c. circumscriptus		/		/						
	Arion distinctus				/		/				
	Arion subfuscus		/	/	/				/		
	Cecilioides acicula		/*								
	Cepaea hortensis		/*			/					
	Cepaea nemoralis				/		/		/		
	Cernuella virgata								/		
	Clausilia bidentata		/								
	Cochlodina laminata					/					
	Cornu aspersum				/	/		/	/		
	Deroceras laeve				/						
	Derocaeras invadens			/							

	Deroceras reticulatum	/		/			/		/		
	Helicigona lapicida			/*							
	Lehmannia marginata				/						
	Lymnaea stagnalis						/				
	Merdigera obscura		/								
	Monacha cantina			/			/				/
	Oxychilus alliarius								/		
	Oxyloma elegans				/			/			
	Pomatias elegans					/*					
	Succinea putris						/				
	Trochulus hispidus						/*				/
	Trochulus striolatus			/	/	/					
	Vallonia costata		/*								
Beetles	*Adalia 10-punctata*					/	/				
	Agonum marginatum								/		
	Amara plebeja									/	
	Aphidecta obliterata										/
	Athous haemorrhoidalis				/	/	/				
	Byturus tomentosus				/			/			
	Calvia 16-guttata						/				
	Cantharis nigricans						/				
	Cantharis pellucida						/				
	Coccinella 7-punctata				/						
	Gastrophysa viridula						/				
	Harmonia axyridis				/	/					
	Nebria brevicollis			/							
	Notiophilus biguttatus			/							
	Oedemera lurida							/			

	Phyllobius pomaceus				/	/	/				
	Prasocuris marginella						/				
	Propylea 14-punctata				/	/					
	Pterostichus nigrita/ rhaeticus								/		
	Pyrochroa serraticornis						/				
	Rhagonycha fulva										/
	Rhyzobius litura					/*					
	Silpha tristis								/		
Millipedes	*Cylindroiulus britannicus*				/						
	Cylindroiulus londinensis				/*						
	Cylindroiulus punctatus		/		/						
	Glomeris marginata		/								
	Julus scandinavius		/								
	Ommatoiulus sabulosus				/						
	Polydesmus angustus				/		/		/		
Centipedes	*Lithobius forficatus*				/						

Southern Migrant Hawker at Saltholme

Mark Stokeld

This Southern Migrant Hawker (*Aeshna affinis*) was seen on the RSPB reserve at Saltholme on 12th August 2022 (Grid reference for Saltholme: NZ5023) This is the first time this species has been recorded in the north-east.

Green-flowered Helleborine in Cleveland

Mark Stokeld

This Green-flowered Helleborine (*Epipactis phyllanthes*) was found on 14th July 2022 just upstream of the Tees Barrage on the south side of the river, grid reference NZ457189. Identification was confirmed by Sean Cole, author of the new Wild Guides *Britain's Orchids*.

A Very Popular Alder Tree

Daphne Aplin

One of my fairly regular walks at Cowpen Bewley Woodland Park in Billingham takes me near the Newcastle to Middlesbrough railway track and, on the 25/5/2020, I saw four female *Xiphydria camelus* (sawflies) ovipositing in an Alder tree at the side of the ride. The next day there were five females ovipositing in the same tree (grid ref. NZ482252). There are three species of *Xiphydria*: *X. prolongata, X. longicollis* and *X. camelus* the host plants of which are given as Alder and Birch.
I purposefully went back on 7/5/2022 and I was surprised to see some ichneumons flying back and forth round this same tree, at least three females and one male. It was an amazing sight to see such activity. It looked as though they were searching for something. Then the females started ovipositing into the tree. I have never seen such long ovipositors before on an insect.

Looking online, Sabre Wasp seemed to be the most obvious identification and an insect book described *Rhyssa persuasoria* as something similar. I asked for advice on this and Jaswinder Boparai from the Natural History Museum said that they were in fact *Ryssella approximator*.

Malcolm Storey kindly explained that this is in the same subfamily (Rhyssinae) as Sabre Wasp and that they are our only two species in that subfamily.

I was informed by Jaswinder Boparai that *X. camelus* larvae are known hosts of *R. approximator* so that ties in nicely. It looks as though the sawflies had been there sometime earlier and the ichneumons were searching for their larvae.

Ryssella approximator

Xiphydria camelus

Cowpen Bewley Woodland Park: Wiley Wasps

Daphne Aplin

On 11/9/2022 at Cowpen Bewley Woodland Park I saw at least three tiny female Chalcid wasps very excitedly exploring an Oak Marble Gall (Grid ref. NZ477251). It was amazing to watch these beautiful, metallic-coloured wasps frantically running around the gall, antennae going a hundred to the dozen, as they jumped and jostled each other out of the way. They seemed to be listening for movement inside the gall and then, every so often, stopping to insert their long ovipositors into it.

Although it was rather windy I did manage to take a short video of this and Koorosh McCormack from the UK Centre for Ecology and Hydrology got back to me saying that two of them were *Torymus geranii* and *Torymus auratus* both known attackers of *Andricus kollari* (the gall former).

Shieldbugs go through up to five moults to adulthood and I often see *Pentatoma rufipes* (Red-legged Shieldbugs) in varying stages when I am out and about. I have never actually seen them emerge from eggs though, so you can imagine my delight to find 14 of their eggs on the underside of a leaf on an Oak tree by the side of a track on the 30/8/2022 (Grid ref. NZ475252). Having absolutely no idea when they had been laid, or even how long it would take, I decided to take the leaf home determined to watch the process. Unfortunately three days later on the 3rd September I thought something was amiss when larvae with big eyes could be seen in the transparent eggshell! On the 4th the eggs turned black. On the 10th I wasn't particularly surprised to see 14 tiny wasps. Perhaps another year I will have better luck.

Discovering the Hoverflies of Cowpen Bewley Woodland Park, Billingham, 2022.

Daphne Aplin

I can't count the number of times I have stood and stared at the beautiful Blackthorn bushes in Cowpen Bewley Woodland Park and wished I knew what insects I was looking at? On a sunny day there is nothing nicer than listening to the buzz and hum of the insects as they jostle for a good spot. I think I realised I was being "hooked" when I started to photograph them and then attempting to identify the images. They are so fast - one minute one is feeding on a blossom and in the blink of an eye (or click of the shutter button) another is in its place! Where to begin? I think over the years I have become familiar with a couple of Hoverflies like the tiny delicious "tangerine" coloured *Episyrphus balteatus* commonly known as the "Marmalade Hoverfly" and the large handsome "Footballer" *Helophilus pendulus* so named because of the stripes on its thorax. So perhaps learning to differentiate Hoverflies from Bees, Wasps and Flies would be a good starting point! I invested in a super Field Guide called "Britain's Hoverflies" by Stuart Ball and Roger Morris and I was "reeled in – hook, line and sinker!"

What a revelation!

I don't know if there is a collective noun for Hoverflies but I think an apt one would be a "happiness". They are delightful little insects and although some mimic bees and wasps, they are harmless to humans and important pollinators. I was amazed to discover that there are nearly 300 species in the British Isles.

Thus far I have identified the Adults of 33 species all of which have been verified. These are:-

Cheilosia pagana
Cheilosia proxima
Chrysotoxum bicinctum
Dasysyrphus albostriatus
Dasysyrphus tricinctus
Episyrphus balteatus
Epistrophe eligans
Epistrophe grossulariae
Eristalinus aeneus
Eristalinus sepulchralis
Eristalis pertinax
Eristalis tenax
Eumerus sp.
Eupeodes luniger
Ferdinandea cuprea
Helophilus pendulus
Leucozona laternaria
Leucozona lucorum
Melangyna lasiophthalma
Melanostoma scalare
Merodon equestris
Parasyrphus nigritarsis

Parasyrphus punctulatus
Parhelophilus sp.
Pipiza sp.
Platycheirus albimanus
Platycheirus scutatus agg.
Rhingia campestris
Sphaerophoria interrrupta
Sphaerophoria scripta
Syritta pipiens
Syrphus ribesii
Volucella pellucens

***Eristalinus sepulchralis* F.**

***Leucozona laternaria* F.**

***Sphaerophoria scripta* M.**

Treehopper at Crimdon Dene

David Miller

On the 7th June 2022 I enjoyed a lovely day bug hunting with Daphne Aplin at Crimdon Dene. Whilst we found lots of interesting insects one stood out above the rest. I could scarcely believe it when I looked in the sweep net and saw this squat little bug. At first I thought it must be something rolled up but it wasn't. It was definitely chunky! It didn't take me long to find it on an internet search and it turned out to be the Treehopper *Centrotus cornutus*, something I'd never seen before despite having done most of my bug hunting in the southern parts of England. We have only two species of Treehopper in Britain, so we were both very excited to see this beautiful little beastie. It's about 10mm long. As I remember it we were sweep netting in what amounted to a small glade, a sheltered area set back from the main path through the dene.

Moth Records 2022

P W Forster

Moths recorded at 1 Middleton Drive, Guisborough, Cleveland TS14 7BQ. Three new species were recorded in 2022, highlighted in red in the following list.

	Moth Recorded 2022			
	P W Forster			
	Middleton Drive, Guisborough			
	NZ617153 (VC62)			
Code	**Scientific Name**	**Vernacular Name**	**No.**	**Date**
63.093	*Agriphila straminella*	a moth	10	19-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	2	19-Jul-22
37.073	*Coleophora alticolella*	a moth	1	19-Jul-22
73.345	*Noctua comes*	Lesser Yellow Underwing	1	19-Jul-22
16.001	*Yponomeuta evonymella*	Bird-cherry Ermine	1	19-Jul-22
73.015	*Autographa gamma*	Silver Y	2	19-Jul-22
63.102	*Catoptria falsella*	a moth	1	19-Jul-22
73.216	*Cosmia trapezina*	Dun-bar	1	19-Jul-22
63.074	*Eudonia mercurella*	a moth	40	19-Jul-22
73.154	*Apamea remissa*	Dusky Brocade	2	19-Jul-22
	Oligia strigilis agg.	Marbled Minor agg.	6	19-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	25	19-Jul-22
70.016	*Idaea aversata ab. remutata*	Riband Wave [non-banded form]	20	19-Jul-22
70.258	*Peribatodes rhomboidaria*	Willow Beauty	2	19-Jul-22
70.055	*Xanthorhoe quadrifasiata*	Large Twin-spot Carpet	3	19-Jul-22
70.016	*Idaea aversata*	Riband Wave	8	19-Jul-22
73.317	*Agrotis exclamationis*	Heart and Dart	2	19-Jul-22
72.045	*Eilema lurideola*	Common Footman	2	19-Jul-22
35.04	*Bryotropha terrella*	a moth	6	19-Jul-22
49.038	*Clepsis consimilana*	a moth	2	19-Jul-22
73.348	*Noctua janthe*	Lesser Broad-bordered Yellow Underwing	1	19-Jul-22
73.261	*Polia nebulosa*	Grey Arches	2	19-Jul-22
73.361	*Xestia triangulum*	Double Square-spot	2	19-Jul-22
73.274	*Mamestra brassicae*	Cabbage Moth	2	19-Jul-22
70.276	*Bupalus piniaria*	Bordered White	1	19-Jul-22
70.049	*Xanthorhoe fluctuata*	Garden Carpet	1	19-Jul-22
73.368	*Naenia typica*	Gothic	1	19-Jul-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	8	19-Jul-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	2	19-Jul-22
22.002	*Prays fraxinella*	Ash Bud Moth	1	19-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	20	19-Jul-22
70.299	*Geometra papilionaria*	Large Emerald	1	19-Jul-22
70.141	*Gymnoscelis rufifasciata*	Double-striped Pug	1	19-Jul-22

72.017	*Orgyia antiqua*	Vapourer	1	19-Jul-22
73.174	*Oligia latruncula*	Tawny Marbled Minor	6	19-Jul-22
73.002	*Abrostola triplasia*	Dark Spectacle	1	19-Jul-22
73.254	*Cerapteryx graminis*	Antler Moth	2	19-Jul-22
41.002	*Blastobasis adustella*	a moth	20	19-Jul-22
73.097	*Hoplodrina blanda*	Rustic	1	19-Jul-22
73.338	*Lycophotia porphyrea*	True Lover's Knot	2	19-Jul-22
73.291	*Mythimna pallens*	Common Wainscot	2	19-Jul-22
20.011	*Argyresthia brockeella*	a moth	2	19-Jul-22
	Acronicta tridens/psi	Dark Dagger / Grey Dagger	1	19-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	30	19-Jul-22
	Mesapamea secalis agg.	Common Rustic agg.	2	19-Jul-22
70.011	*Idaea dimidiata*	Single-dotted Wave	1	19-Jul-22
70.243	*Ourapteryx sambucaria*	Swallow-tailed Moth	4	19-Jul-22
49.004	*Ditula angustiorana*	Red-barred Tortrix	2	19-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	1	17-Jul-22
63.093	*Agriphila straminella*	a moth	4	17-Jul-22
65.009	*Habrosyne pyritoides*	Buff Arches	1	17-Jul-22
73.329	*Ochropleura plecta*	Flame Shoulder	1	17-Jul-22
41.003	*Blastobasis lacticolella*	a moth	1	17-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	6	17-Jul-22
70.016	*Idaea aversata*	Riband Wave	1	17-Jul-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	1	17-Jul-22
73.348	*Noctua janthe*	Lesser Broad-bordered Yellow Underwing	2	17-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	4	17-Jul-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	1	17-Jul-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	1	17-Jul-22
73.176	*Oligia fasciuncula*	Middle-barred Minor	3	17-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	20	17-Jul-22
70.243	*Ourapteryx sambucaria*	Swallow-tailed Moth	1	17-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	20	17-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	1	17-Jul-22
63.093	*Agriphila straminella*	a moth	4	17-Jul-22
65.009	*Habrosyne pyritoides*	Buff Arches	1	17-Jul-22
73.329	*Ochropleura plecta*	Flame Shoulder	1	17-Jul-22
41.003	*Blastobasis lacticolella*	a moth	1	17-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	6	17-Jul-22
70.016	*Idaea aversata*	Riband Wave	1	17-Jul-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	1	17-Jul-22
73.348	*Noctua janthe*	Lesser Broad-bordered Yellow Underwing	2	17-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	4	17-Jul-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	1	17-Jul-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	1	17-Jul-22
73.176	*Oligia fasciuncula*	Middle-barred Minor	3	17-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	20	17-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	1	17-Jul-22

63.093	*Agriphila straminella*	a moth	4	17-Jul-22
65.009	*Habrosyne pyritoides*	Buff Arches	1	17-Jul-22
73.329	*Ochropleura plecta*	Flame Shoulder	1	17-Jul-22
41.003	*Blastobasis lacticolella*	a moth	1	17-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	6	17-Jul-22
70.016	*Idaea aversata*	Riband Wave	1	17-Jul-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	1	17-Jul-22
73.348	*Noctua janthe*	Lesser Broad-bordered Yellow Underwing	2	17-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	4	17-Jul-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	1	17-Jul-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	1	17-Jul-22
73.176	*Oligia fasciuncula*	Middle-barred Minor	3	17-Jul-22
63.093	*Agriphila straminella*	a moth	1	15-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	1	15-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	1	15-Jul-22
63.074	*Eudonia mercurella*	a moth	1	15-Jul-22
70.258	*Peribatodes rhomboidaria*	Willow Beauty	1	15-Jul-22
	Oligia strigilis agg.	Marbled Minor agg.	1	15-Jul-22
70.016	*Idaea aversata*	Riband Wave	1	15-Jul-22
73.361	*Xestia triangulum*	Double Square-spot	2	15-Jul-22
63.057	*Evergestis forficalis*	Garden Pebble	1	15-Jul-22
73.274	*Mamestra brassicae*	Cabbage Moth	1	15-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	3	15-Jul-22
	Mesapamea secalis agg.	Common Rustic agg.	2	15-Jul-22
73.096	*Hoplodrina octogenaria*	Uncertain	1	15-Jul-22
73.168	*Lateroligia ophiogramma*	Double Lobed	1	15-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	1	13-Jul-22
70.258	*Peribatodes rhomboidaria*	Willow Beauty	1	13-Jul-22
73.04	*Acronicta leporina*	Miller	1	13-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	1	13-Jul-22
73.317	*Agrotis exclamationis*	Heart and Dart	1	13-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	8	13-Jul-22
73.174	*Oligia latruncula*	Tawny Marbled Minor	1	13-Jul-22
73.332	*Diarsia brunnea*	Purple Clay	1	13-Jul-22
73.001	*Abrostola tripartita*	Spectacle	1	13-Jul-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	1	13-Jul-22
70.243	*Ourapteryx sambucaria*	Swallow-tailed Moth	6	13-Jul-22
73.017	*Autographa jota*	Plain Golden Y	4	13-Jul-22
73.016	*Autographa pulchrina*	Beautiful Golden Y	3	13-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	6	13-Jul-22
65.009	*Habrosyne pyritoides*	Buff Arches	6	11-Jul-22
63.093	*Agriphila straminella*	a moth	20	11-Jul-22
63.038	*Pleuroptya ruralis*	Mother of Pearl	1	11-Jul-22
49.091	*Pseudargyrotoza conwagana*	a moth	1	11-Jul-22
70.008	*Idaea seriata*	Small Dusty Wave	2	11-Jul-22
49.158	*Hedya ochroleucana*	a moth	1	11-Jul-22

63.074	*Eudonia mercurella*	a moth	4	11-Jul-22
70.016	*Idaea aversata*	Riband Wave	3	11-Jul-22
72.002	*Rivula sericealis*	Straw Dot	4	11-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	6	11-Jul-22
73.293	*Mythimna impura*	Smoky Wainscot	1	11-Jul-22
73.154	*Apamea remissa*	Dusky Brocade	2	11-Jul-22
70.055	*Xanthorhoe quadrifasiata*	Large Twin-spot Carpet	1	11-Jul-22
73.328	*Axylia putris*	Flame	4	11-Jul-22
72.045	*Eilema lurideola*	Common Footman	1	11-Jul-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	4	11-Jul-22
17.003	*Ypsolopha dentella*	Honeysuckle Moth	1	11-Jul-22
70.133	*Perizoma alchemillata*	Small Rivulet	1	11-Jul-22
63.018	*Anania coronata*	a moth	3	11-Jul-22
70.085	*Cidaria fulvata*	Barred Yellow	1	11-Jul-22
73.001	*Abrostola tripartita*	Spectacle	2	11-Jul-22
49.022	*Ptycholoma lecheana*	a moth	1	11-Jul-22
73.045	*Acronicta rumicis*	Knot Grass	1	11-Jul-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	1	11-Jul-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	2	11-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	3	11-Jul-22
45.01	*Amblyptilia acanthadactyla*	Beautiful Plume	1	11-Jul-22
31.001	*Carcina quercana*	a moth	1	11-Jul-22
73.016	*Autographa pulchrina*	Beautiful Golden Y	2	11-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	6	11-Jul-22
70.252	*Biston betularia*	Peppered Moth	1	11-Jul-22
73.096	*Hoplodrina octogenaria*	Uncertain	5	11-Jul-22
49.004	*Ditula angustiorana*	Red-barred Tortrix	2	11-Jul-22
63.067	*Eudonia lacustrata*	a moth	1	11-Jul-22
49.091	*Pseudargyrotoza conwagana*	a moth	1	10-Jul-22
63.093	*Agriphila straminella*	a moth	3	10-Jul-22
70.093	*Gandaritis pyraliata*	Barred Straw	1	10-Jul-22
65.009	*Habrosyne pyritoides*	Buff Arches	2	10-Jul-22
63.038	*Pleuroptya ruralis*	Mother of Pearl	1	10-Jul-22
73.015	*Autographa gamma*	Silver Y	1	10-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	2	10-Jul-22
49.224	*Spilonota ocellana*	Bud Moth	1	10-Jul-22
73.04	*Acronicta leporina*	Miller	1	10-Jul-22
73.329	*Ochropleura plecta*	Flame Shoulder	1	10-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	1	10-Jul-22
73.293	*Mythimna impura*	Smoky Wainscot	1	10-Jul-22
72.002	*Rivula sericealis*	Straw Dot	2	10-Jul-22
70.016	*Idaea aversata*	Riband Wave	8	10-Jul-22
72.042	*Atolmis rubricollis*	Red-necked Footman	1	10-Jul-22
49.038	*Clepsis consimilana*	a moth	1	10-Jul-22
72.045	*Eilema lurideola*	Common Footman	1	10-Jul-22
73.317	*Agrotis exclamationis*	Heart and Dart	6	10-Jul-22

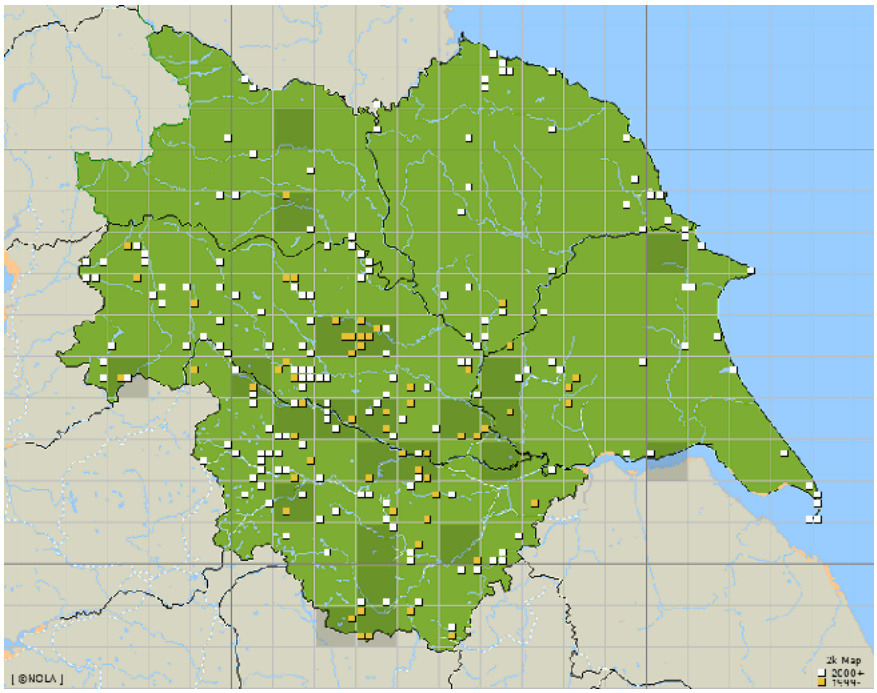
70.084	*Plemyria rubiginata*	Blue-bordered Carpet	1	10-Jul-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	5	10-Jul-22
35.04	*Bryotropha terrella*	a moth	1	10-Jul-22
73.332	*Diarsia brunnea*	Purple Clay	3	10-Jul-22
73.174	*Oligia latruncula*	Tawny Marbled Minor	1	10-Jul-22
49.144	*Eudemis profundana*	a moth	1	10-Jul-22
73.045	*Acronicta rumicis*	Knot Grass	1	10-Jul-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	1	10-Jul-22
70.074	*Hydriomena furcata*	July Highflier	2	10-Jul-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	4	10-Jul-22
72.053	*Herminia tarsipennalis*	Fan-foot	1	10-Jul-22
70.141	*Gymnoscelis rufifasciata*	Double-striped Pug	2	10-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	6	10-Jul-22
72.003	*Hypena proboscidalis*	Snout	2	10-Jul-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	5	10-Jul-22
	Acronicta tridens/psi	Dark Dagger / Grey Dagger	1	10-Jul-22
69.017	*Deilephila porcellus*	Small Elephant Hawk-moth	1	10-Jul-22
	Mesapamea secalis agg.	Common Rustic agg.	1	10-Jul-22
73.096	*Hoplodrina octogenaria*	Uncertain	2	10-Jul-22
49.004	*Ditula angustiorana*	Red-barred Tortrix	1	10-Jul-22
73.338	*Lycophotia porphyrea*	True Lover's Knot	1	10-Jul-22
72.013	*Euproctis similis*	Yellow-tail	1	10-Jul-22
63.067	*Eudonia lacustrata*	a moth	1	10-Jul-22
70.183	*Eupithecia vulgata*	Common Pug	1	10-Jul-22
70.011	*Idaea dimidiata*	Single-dotted Wave	1	10-Jul-22
49.338	*Cydia pomonella*	Codling Moth	2	9-Jul-22
70.008	*Idaea seriata*	Small Dusty Wave	1	9-Jul-22
63.093	*Agriphila straminella*	a moth	1	9-Jul-22
63.038	*Pleuroptya ruralis*	Mother of Pearl	1	9-Jul-22
73.329	*Ochropleura plecta*	Flame Shoulder	1	9-Jul-22
70.016	*Idaea aversata*	Riband Wave	1	9-Jul-22
73.084	*Bryophila domestica*	Marbled Beauty	1	9-Jul-22
73.317	*Agrotis exclamationis*	Heart and Dart	10	9-Jul-22
73.361	*Xestia triangulum*	Double Square-spot	1	9-Jul-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	5	9-Jul-22
49.038	*Clepsis consimilana*	a moth	1	9-Jul-22
73.328	*Axylia putris*	Flame	1	9-Jul-22
72.043	*Eilema depressa*	Buff Footman	1	9-Jul-22
70.141	*Gymnoscelis rufifasciata*	Double-striped Pug	2	9-Jul-22
72.053	*Herminia tarsipennalis*	Fan-foot	1	9-Jul-22
73.267	*Lacanobia oleracea*	Bright-line Brown-eye	4	9-Jul-22
63.018	*Anania coronata*	a moth	1	9-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	3	9-Jul-22
70.276	*Bupalus piniaria*	Bordered White	1	9-Jul-22
72.003	*Hypena proboscidalis*	Snout	6	9-Jul-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	5	9-Jul-22

73.368	*Naenia typica*	Gothic	1	9-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	6	9-Jul-22
	Acronicta tridens/psi	Dark Dagger / Grey Dagger	1	9-Jul-22
73.016	*Autographa pulchrina*	Beautiful Golden Y	2	9-Jul-22
63.067	*Eudonia lacustrata*	a moth	1	9-Jul-22
73.096	*Hoplodrina octogenaria*	Uncertain	4	9-Jul-22
70.243	*Ourapteryx sambucaria*	Swallow-tailed Moth	3	9-Jul-22
63.093	*Agriphila straminella*	a moth	1	5-Jul-22
73.317	*Agrotis exclamationis*	Heart and Dart	2	5-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	1	5-Jul-22
73.016	*Autographa pulchrina*	Beautiful Golden Y	1	5-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	4	5-Jul-22
73.096	*Hoplodrina octogenaria*	Uncertain	1	5-Jul-22
73.012	*Diachrysia chrysitis*	Burnished Brass	1	2-Jul-22
70.258	*Peribatodes rhomboidaria*	Willow Beauty	1	2-Jul-22
73.317	*Agrotis exclamationis*	Heart and Dart	3	2-Jul-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	1	2-Jul-22
73.361	*Xestia triangulum*	Double Square-spot	1	2-Jul-22
73.342	*Noctua pronuba*	Large Yellow Underwing	2	2-Jul-22
73.267	*Lacanobia oleracea*	Bright-line Brown-eye	1	2-Jul-22
73.162	*Apamea monoglypha*	Dark Arches	3	2-Jul-22
69.01	*Macroglossum stellatarum*	Humming-bird Hawk-moth	1	30-Jun-22
63.093	*Agriphila straminella*	a moth	5	29-Jun-22
73.015	*Autographa gamma*	Silver Y	2	29-Jun-22
73.012	*Diachrysia chrysitis*	Burnished Brass	4	29-Jun-22
49.156	*Hedya nubiferana*	Marbled Orchard Tortrix	1	29-Jun-22
65.009	*Habrosyne pyritoides*	Buff Arches	1	29-Jun-22
70.008	*Idaea seriata*	Small Dusty Wave	1	29-Jun-22
49.367	*Pammene fasciana*	a moth	1	29-Jun-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	4	29-Jun-22
73.317	*Agrotis exclamationis*	Heart and Dart	4	29-Jun-22
72.003	*Hypena proboscidalis*	Snout	1	29-Jun-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	6	29-Jun-22
73.332	*Diarsia brunnea*	Purple Clay	1	29-Jun-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	1	29-Jun-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	1	29-Jun-22
70.138	*Perizoma flavofasciata*	Sandy Carpet	1	29-Jun-22
73.342	*Noctua pronuba*	Large Yellow Underwing	1	29-Jun-22
73.174	*Oligia latruncula*	Tawny Marbled Minor	2	29-Jun-22
73.176	*Oligia fasciuncula*	Middle-barred Minor	3	29-Jun-22
49.157	*Hedya pruniana*	Plum Tortrix	1	29-Jun-22
45.01	*Amblyptilia acanthadactyla*	Beautiful Plume	1	29-Jun-22
63.067	*Eudonia lacustrata*	a moth	1	29-Jun-22
70.243	*Ourapteryx sambucaria*	Swallow-tailed Moth	1	29-Jun-22
73.162	*Apamea monoglypha*	Dark Arches	3	29-Jun-22
63.025	*Anania hortulata*	Small Magpie	1	29-Jun-22

73.016	*Autographa pulchrina*	Beautiful Golden Y	3	29-Jun-22
31.001	*Carcina quercana*	a moth	1	29-Jun-22
63.093	*Agriphila straminella*	a moth	1	25-Jun-22
49.338	*Cydia pomonella*	Codling Moth	1	25-Jun-22
70.151	*Eupithecia pulchellata*	Foxglove Pug	1	25-Jun-22
70.283	*Campaea margaritaria*	Light Emerald	6	25-Jun-22
70.258	*Peribatodes rhomboidaria*	Willow Beauty	1	25-Jun-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	3	25-Jun-22
73.317	*Agrotis exclamationis*	Heart and Dart	10	25-Jun-22
62.001	*Aphomia sociella*	Bee Moth	1	25-Jun-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	8	25-Jun-22
70.276	*Bupalus piniaria*	Bordered White	1	25-Jun-22
73.368	*Naenia typica*	Gothic	1	25-Jun-22
73.174	*Oligia latruncula*	Tawny Marbled Minor	4	25-Jun-22
73.267	*Lacanobia oleracea*	Bright-line Brown-eye	1	25-Jun-22
73.016	*Autographa pulchrina*	Beautiful Golden Y	4	25-Jun-22
70.061	*Epirrhoe alternata*	Common Carpet	1	21-Jun-22
70.016	*Idaea aversata*	Riband Wave	1	21-Jun-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	3	21-Jun-22
73.325	*Agrotis puta*	Shuttle-shaped Dart	1	21-Jun-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	1	21-Jun-22
28.01	*Hofmannophila pseudospretella*	Brown House-moth	1	21-Jun-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	5	21-Jun-22
73.176	*Oligia fasciuncula*	Middle-barred Minor	1	21-Jun-22
73.162	*Apamea monoglypha*	Dark Arches	2	21-Jun-22
69.003	*Laothoe populi*	Poplar Hawk-moth	1	19-Jun-22
73.154	*Apamea remissa*	Dusky Brocade	1	19-Jun-22
70.258	*Peribatodes rhomboidaria*	Willow Beauty	2	19-Jun-22
73.264	*Lacanobia thalassina*	Pale-shouldered Brocade	1	19-Jun-22
70.097	*Dysstroma truncata*	Common Marbled Carpet	1	19-Jun-22
73.317	*Agrotis exclamationis*	Heart and Dart	1	19-Jun-22
73.342	*Noctua pronuba*	Large Yellow Underwing	2	19-Jun-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	8	19-Jun-22
73.096	*Hoplodrina octogenaria*	Uncertain	1	19-Jun-22
70.252	*Biston betularia*	Peppered Moth	1	19-Jun-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	1	27-May-22
70.151	*Eupithecia pulchellata*	Foxglove Pug	1	15-Jun-22
70.258	*Peribatodes rhomboidaria*	Willow Beauty	2	15-Jun-22
73.113	*Phlogophora meticulosa*	Angle Shades	1	15-Jun-22
62.001	*Aphomia sociella*	Bee Moth	1	15-Jun-22
73.325	*Agrotis puta*	Shuttle-shaped Dart	1	15-Jun-22
73.317	*Agrotis exclamationis*	Heart and Dart	3	15-Jun-22
74.008	*Pseudoips prasinana*	Green Silver-lines	1	15-Jun-22
73.174	*Oligia latruncula*	Tawny Marbled Minor	1	15-Jun-22
72.003	*Hypena proboscidalis*	Snout	1	15-Jun-22
70.226	*Opisthograptis luteolata*	Brimstone Moth	1	15-Jun-22

49.039	*Epiphyas postvittana*	Light Brown Apple Moth	6	15-Jun-22
73.017	*Autographa jota*	Plain Golden Y	1	15-Jun-22
70.183	*Eupithecia vulgata*	Common Pug	1	15-Jun-22
69.003	*Laothoe populi*	Poplar Hawk-moth	1	7-Jun-22
71.005	*Furcula furcula*	Sallow Kitten	1	7-Jun-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	2	7-Jun-22
73.274	*Mamestra brassicae*	Cabbage Moth	1	31-May-22
70.252	*Biston betularia*	Peppered Moth	1	31-May-22
73.156	*Apamea crenata*	Clouded-bordered Brindle	1	27-May-22
73.325	*Agrotis puta*	Shuttle-shaped Dart	1	27-May-22
73.113	*Phlogophora meticulosa*	Angle Shades	1	27-May-22
69.016	*Deilephila elpenor*	Elephant Hawk-moth	1	27-May-22
73.244	*Orthosia cerasi*	Common Quaker	1	24-Apr-22
73.329	*Ochropleura plecta*	Flame Shoulder	1	24-Apr-22
70.151	*Eupithecia pulchellata*	Foxglove Pug	2	24-Apr-22
44.001	*Alucita hexadactyla*	Twenty-plume Moth	3	24-Apr-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	2	24-Apr-22
73.113	*Phlogophora meticulosa*	Angle Shades	1	22-Apr-22
73.317	*Agrotis exclamationis*	Heart and Dart	2	22-Apr-22
44.001	*Alucita hexadactyla*	Twenty-plume Moth	1	22-Apr-22
73.022	*Plusia festucae*	Gold Spot	1	22-Apr-22
49.039	*Epiphyas postvittana*	Light Brown Apple Moth	2	22-Apr-22
73.244	*Orthosia cerasi*	Common Quaker	1	20-Apr-22
70.095	*Chloroclysta siterata*	Red-Green Carpet	1	20-Apr-22
73.053	*Cucullia chamomillae*	Chamomile Shark	1	20-Apr-22
73.069	*Xylocampa areola*	Early Grey	1	16-Apr-22
73.244	*Orthosia cerasi*	Common Quaker	2	16-Apr-22
73.249	*Orthosia gothica*	Hebrew Character	2	16-Apr-22

Dark Spectacle ***Abrostola triplasia***

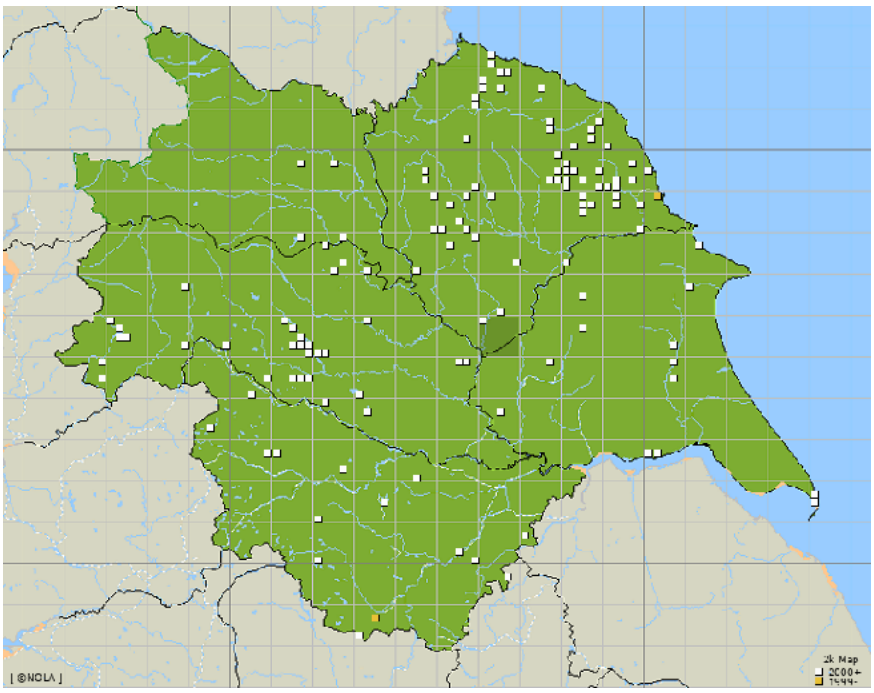


Yorkshire Status: Scarce and thinly distributed or restricted resident.

Sutton & Beaumont, 1989: A very local species in Yorkshire but has been discovered from several new sites since the early 1970s. There has been some confusion over names in the genus, since this species was previously called *A. triplasia*, the name now given to the Spectacle.

2012 (CHF): Most records come from VC63 and 64 though it is often reported from some coastal sites. Away from here it is very local. Numbers may have fallen a little recently. Much less common than Spectacle everywhere.
Recorded in 108 (54%) of 200 10k Squares.
First Recorded in 1883.
Last Recorded in 2022.

Red-necked Footman ***Atolmis rubricollis***



Yorkshire Status: Scarce and local resident.

Sutton & Beaumont, 1989: Not recorded since Porritt (1883-86). He gave records from Guisborough, Scarborough (VC62), Sheffield (VC63) and York (VC61/62/64).

Argus 58, 2009: The anticipated recolonisation of the county has now taken place and this moth is likely to be discovered in several more areas. These are the first confirmed records since the 19th century though there was an unconfirmed one from Wharfedale in 2004.

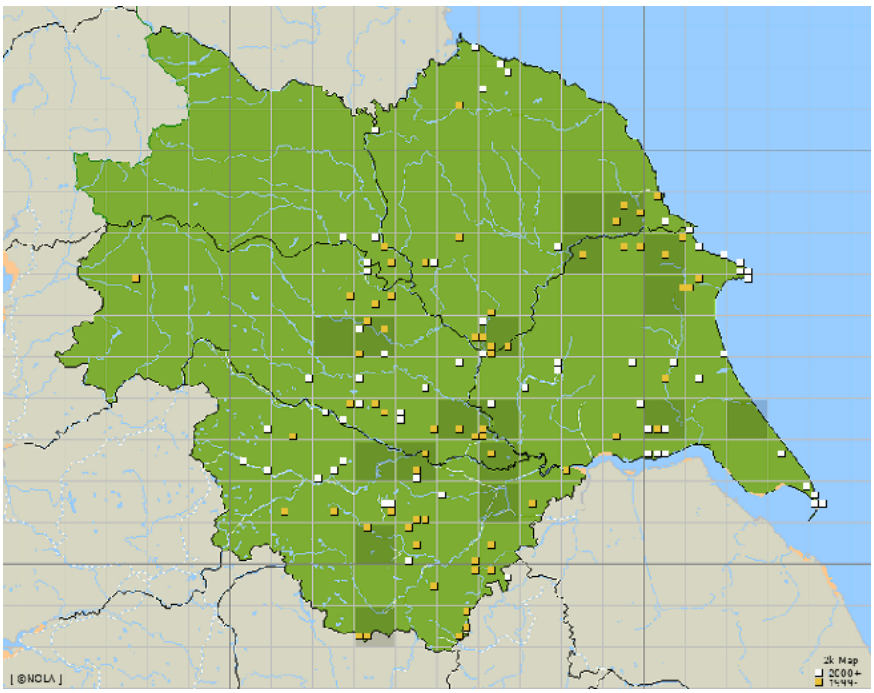
VC62. Silton Forest, 13.6 & 2.7.2009 (TAB); Clay Bank, 30.6.2009 (JRD, AJW).

Current status (CHF, 2011): Porritt listed Guisborough, Scarborough, Sheffield and York as sites for this moth, but there were no 20th Century records. A quite remarkable range expansion has taken place recently up the western side of the country and throughout Scotland. This population has gone on to colonise Northumberland and Durham and then spread south to VC62 in 2009. In 2011 there was evidence of further spread with records in VCs 62, 63 and 64.

Argus 66, 2012: Significant spread of range and increased numbers in the north of the county plus a single record from the south.

VC65. Foxglove Covert, 17.6.2012 (KG). NEW VICE-COUNTY RECORD.
Recorded in 67 (34%) of 200 10k Squares.
First Recorded in 1857.
Last Recorded in 2022.

Chamomile Shark ***Cucullia chamomillae***



Yorkshire Status: Scarce and local resident.

Sutton & Beaumont, 1989: This species seems to have become more frequent since the 1970s, especially in the south and east of the County. The foodplants, mayweeds and chamomile are common weeds in some crops on sandy soils, especially Brassicae, sugar beet and oilseed rape. This last crop has been planted much more extensively since 1970, which could have affected the frequency of the foodplant and hence the moth (PQW pers. comm.).

Argus 47, 2001-2004:

VC65. Hutton Conyers, 11.5.2001 then eight subsequent records to 2003 (CHF). NEW VICE-COUNTY RECORD.

2012 (CHF): Numbers have declined since 2004 though there has been an expansion of the range up to Teesside in the north east. Arable field margins are not popular places to site moth traps and there would be a lot more records if this sort of habitat was targeted. Apparently doing better to the north of us and has been lost from areas of central England. Do not confuse this species with the larger Shark which flies later.
RecordeYorkshired in 75 (38%) of 200 10k Squares.
First Recorded in 1877.
Last Recorded in 2022.

Hummingbird Hawkmoth *Macroglossum stellatarum*

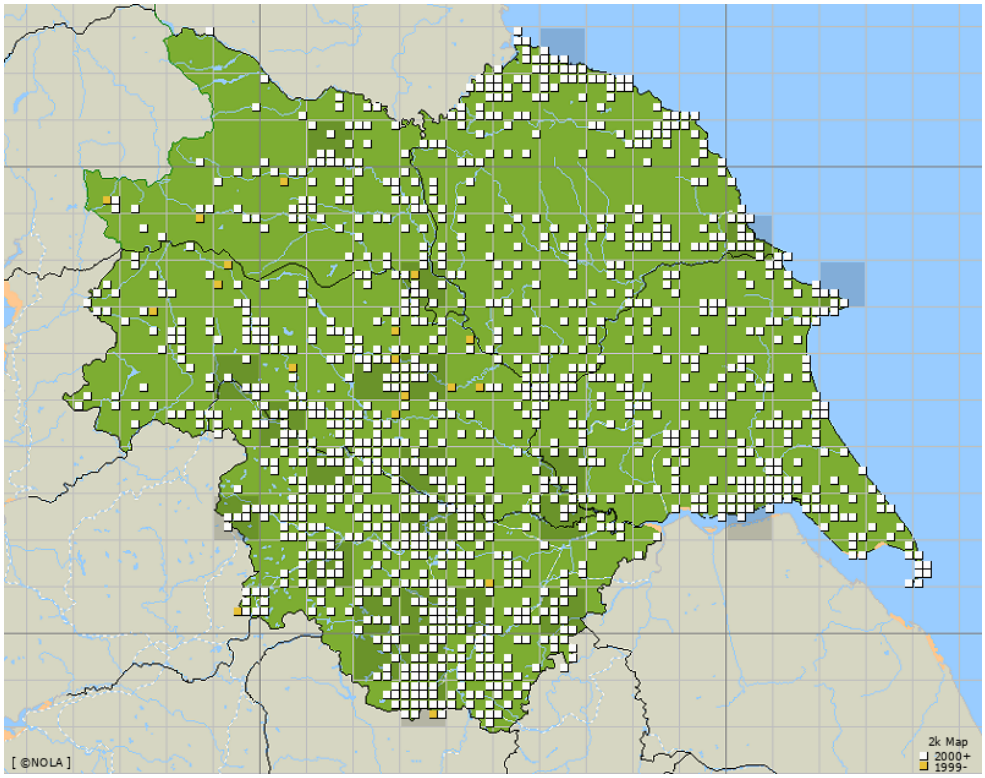
P W Forster

South Gare
24.06.2022
NZ5626 (VC62)

On the 24th of June 2022 I had a trip to the South Gare. This particular day was indeed very hot, 22^{o} C recorded with a slight SW breeze.
From the road opposite the blast furnace I walked towards an embankment, (the results of steel production from British Steel). The base of the embankment was covered in Red Valerian, *Centranthus ruber*. Nectaring on the flower heads were four individual Hummingbird Hawkmoths, as usual their activity was very energetic, moving up and down the embankment, and on occasions resting.

At one point I noticed what was probably a male attempting to engage in copulation.

I visited this site for the next three days and monitored the numbers, which stayed at four only. My next visit was seventeen days later 10.07.2022. The first thing I noticed was all the Red Valerian had now finished flowering and all that was left were the withered remains of the plants. This was probably due to the extreme high temperatures and drought conditions in that month. I did not see the Hummingbird Hawkmoths again.


[©NOLA]
2k Map
2000+
1999-

Yorkshire Status: Uncommon and fairly widespread migrant/wanderer.

Sutton & Beaumont, 1989: A regular migrant with several being reported in the County in most years although, as with many immigrants, most frequently near the coast. Recorded from vice-counties 61 to 64 and known to have bred in South Yorkshire in 1976 (JRB pers. comm.).

2012 (CHF): Numbers of this migrant have increased significantly in the last ten years, the best being 347 records in 2006 and 198 in 2011. In some years there have been records in March and April suggesting over-wintering. There have not been many reports of larvae, the most recent being at Malham and Spurn in 2006.

Recorded in **179 (90%)** of 200 10k Squares.
First Recorded in **1865.**
Last Recorded in **2022.**

Dune Cup *Peziza ammophilia*

P W Forster

South Gare
NZ557274 (VC62)

On the 13.11.2022 whilst walking through the dunes at South Gare towards the sea I came across one single Dune Cup *Peziza ammophilia.*
On the14th I decided to walk south towards Redcar from the above coordinates on the edge of the dunes, in about a forty meters I had counted 40 Dune Cups.

The 20th the number had increased to 60+. On the 03.12.2022 only 16 were seen. The previous day had seen strong winds from North West causing the sand to cover the site, however on the 12th, 50 were recorded.

This is the most I have seen on this particular site, all stages of growth were very visible within the fruiting bodies.

Peziza ammophila substratum is rotting roots of Marram Grass, *Ammophila arenaria,* rooting with a fragile mycelium strand.

Recorded Previously:
Alan Legg 20-09-1987, Gordon Simpson, 26-07-2007, P W Forster 18-11-2022 .
Ref ‘Cate 2’.

Thanks to M. Cruise for supplying the ‘Cate2’ Data.

Ref: The complete Encyclopaedia of Mushrooms, by Gerrit J. Keizer.

Attack and Defence: Millipedes and Centipedes in the Cleveland Area

Part 1: Millipedes

A A Wardhaugh

Imagine a hot sunny day in a deciduous woodland somewhere in Cleveland. Leaf litter along the edge of the path is rather dry. A Wolf Spider, a fast runner that hunts down its prey instead of building a web, is looking for a meal:

Crossing the surface of the leaf litter it happens to encounter a Pill Millipede (*Glomeris marginata*):

As soon as it feels the attention of the spider, the millipede rolls into a tight ball:

The spider does not give up but before it can deliver a fatal venomous bite the millipede begins to secrete a sticky fluid from a series of glands along the middle of its back:

Some of this entangles the fangs of the spider and begins to harden. The spider's movements slow, it becomes drowsy and finally quite anaesthetised. A little later the millipede gradually unrolls and walks quietly away. The Wolf Spider does not recover for some time, long after the millipede has made its escape.

What are millipedes?

Millipedes are arthropods, having jointed legs and an exoskeleton, like insects, crabs and spiders. Sometimes millipedes and centipedes are grouped together under the name myriapods (meaning 'many legs') but they are really very different from each other and are ranked as two separate classes of arthropod, the Diplopoda (millipedes) and Chilopoda (centipedes). The name Diplopoda refers to millipedes having two pairs of legs on each body segment; centipedes have one pair per segment. Millipedes do not, of course, have a thousand legs as their name suggests; most species have fewer than a hundred. Their size ranges from 2mm (1/12in) up to 300mm (12in) in the largest tropical species. However, a fossil millipede found in Howick Bay, Northumberland in 2018, named *Arthropleura*, was a gigantic animal approximately 2.5m (8ft) long and estimated to weigh about 50kg (8 stones). It lived 326 million years ago during the Carboniferous period.

At present there are thought to be perhaps over 10,000 species of millipede worldwide. In Britain we have about sixty.

Diet

Almost all millipedes are herbivores, feeding on dead plant material and fungi and are therefore important decomposers, living in leaf litter, rotting wood and under bark. The vast majority are beneficial but a few can be agricultural pests, feeding on crops such as potatoes. Even then it seems that they begin feeding only where damage already exists.

Appearance and Lifestyles

Millipedes have four basic body forms, each suited to a different way of life. These forms do not correspond entirely to four taxonomic sub-groups in millipede classification.

Snake millipedes: These are what might be thought of as typical millipedes and they include some of our most common species, for example *Tachypodoiulus niger*:

They have long, smooth, cylindrical bodies and short antennae. Snake millipedes are suited to forcing their way through soil ('bulldozers') and although their legs are individually not strong, the combined effect of many legs makes light work of pushing forward.

Pill millipedes: We have just one common pill millipede species in Britain, *Glomeris marginata*. As described above, it is able to roll up completely into a spherical shape as a defence response. Females have17 pairs of legs and males have 19. It is superficially similar to the Common Pill Woodlouse (*Armadillidium vulgare*) which can also roll up into a ball but which has just seven pairs of legs:

This is a remarkable example of convergent evolution, i.e. where two very distantly related species have evolved similar adaptations as a response to occupying similar niches.

Flat-backed millipedes: In these forms the sides of each body segment are drawn out into short wing-like extensions. Their bodies are somewhat flattened in shape, with the head and first few segments increasing progressively in size toward the middle of the body. This makes them narrowly wedge-shaped and suited to forcing their way through leaf litter. *Polydesmus angustus* is of this type and is one of the most frequently recorded species in Britain. Unlike the two millipede species described above it lacks eyes, presumably not needed because it lives very largely away from light:

Another millipede of similar shape is *Nanagona polydesmoides* but this does have eyes:

These two species belong to different millipede orders and so are not at all closely related; another example of convergent evolution.

Bristly millipedes: Only one species belonging to this group occurs in Britain, called *Polyxenus lagurus*. It is just 3mm long with thirteen pairs of legs and does not look at all like a typical millipede. It lives on lichen encrusted walls and under dry bark, occurring very largely south of a line between Hull and Bristol.

Defence

One of the most striking features of millipedes is their ability to secrete repellant chemicals in order to deter predators, as described for the Pill Millipede *Glomeris marginata* above. The chemical it produces is called glomerin. This is very similar to a clinical drug developed during the 1950s called methaqualone (brand name Quaalude). This acts as a central nervous system depressant and was used as a sedative to treat insomnia. Its use peaked in the 1970s but it was withdrawn because it was found to be addictive. It causes blood pressure, pulse rate and breathing rate all to drop, resulting in a sense of deep relaxation.

Snake millipedes have poison glands down each side of the body, one gland on either side of each segment. These are known a ozadenes and in some species they are brightly coloured for example red or orange on an otherwise pale-coloured body. This may act as a warning colouration to potential predators but it does not explain why the ozadenes of other species are not so contrastingly coloured. Ozadene colour can be a useful feature when trying to identify British snake millipedes. The chemicals produced are of a wide range and some are extremely toxic, including cyanide and benzoquinones. Handling some millipedes can result in the characteristic almond smell of cyanide and placing them in specimen tubes with other invertebrates can cause fatalities. How is it that millipedes avoid being harmed by their own toxins when secreted?

The bristly millipede *Polyxenus lagurus* does not have any chemical defence and it has a softer exoskeleton than other millipedes. Defence is provided by its bristles which are barbed and detach easily from the millipede when they penetrate a would-be predator.

Predators

Given the chemical defences that millipedes possess it is perhaps not surprising that they seem to have few predators. The Daddy Long-legs Spider *Pholcus phalangioides* is said to be able to wrap millipedes in silk and to eat them. Perhaps the length of its legs means that it can initially handle a millipede at a safe distance from its body.

Parasites

Millipedes are known to be sometimes parasitised internally by roundworms (nematodes). Some snake millipedes can become infested with external parasitic fungi of the group known as Laboulbeniales. These grow attached to the first few pairs of legs but not further back. Possible reasons for this are that the animals cannot bend their heads round far enough to groom these anterior legs or that the first five segments of the body lack ozadenes the secretions of which may help to keep the legs further back free from fungi. Laboulbeniales are perhaps better known as parasites of beetles, both as studied extensively by Alex Weir, a past member of Cleveland Naturalists' Field Club.

Life Cycle

In summary, millipedes reproduce sexually and lay eggs which hatch to produce a smaller, notably shorter, version of the adult with just a few body segments and three pairs of legs. This then undergoes a series of moults adding more segments at the hind end of the body each time as it grows to adulthood. Smaller species may have a annual life cycle but some live for several years. The pill millipede *G. marginata* has been known to live for eleven years.

The reproductive organs are located in the second body segment behind the head (not at the hind end as might be expected). During reproduction the male first produces a packet of sperm known as a spermatophore. This is then passed to a small highly modified pair of legs on the seventh segment known as gonopods. During mating the male then passes the spermatophore to the gonopods of the female which are on her second segment. She is then able to store sperm, sometimes for months, and releases it onto the eggs as they are laid. In some millipedes the males are able to use their gonopods to scoop out from the female any spermatophore from a previous mating and then replace it with their own; a similar capability is known in some dragonflies.

Perhaps surprisingly, some millipedes carry out a certain amount of parental care. Some, such as *G. marginata*, coat their eggs with saliva which picks up soil particles and so provides camouflage. Some species make nests, either within the soil or beneath logs and stones. The nest is made from a combination of saliva and excrement which, although not sounding particularly pleasant from a human perspective, sets quite hard and thus provides protection. Other species secrete silk threads for nest building, for example *Chordeuma proximum* (see below for more on this species). Having covered the nest some species then leave but others, such as *P. angustus*, our most common flat-backed species, remain with it.

After breeding during the warmer months some types of millipede moult their exoskeleton, their reproductive organs then regressing for the winter. During the following spring they moult again and the reproductive organs re-grow. This annual cycle can occur several times, the animals living for a number of years, for example *G. marginata* and *T. niger*.

In some species reproduction differs in that the females are usually parthenogenetic i.e. they are able to lay eggs which do not need to be fertilised in order to develop. All offspring are then female, males being rare. An example is *Proteroiulus fuscus* (see below for more on this species).

Species Recorded in Cleveland

The following is a list of species recorded in Cleveland between 01.01.1989 and 31.08.2022 although the large majority date from 2010 onwards. Species are listed in descending order of the number of one km squares in which each species has been found. This number is given in brackets

after the name of each species. Cleveland is defined as the area described by John Hawell (1895), comprising 33 parishes south of the Tees, bounded approximately by Yarm, Swainby and the Esk valley to just north of Whitby at Sandsend. However, for the less frequently encountered species, comments are included on records from adjacent areas of Yorkshire and County Durham. These records paint a far from comprehensive picture of millipedes in the Cleveland area and represent simply what has been found on a casual basis rather than through any systematic surveying. In addition, there may be an element of bias towards woodland habitats and away from synanthropic ones i.e. parks, gardens, cultivated land, brownfield sites and similar areas. Comments on national distribution and habitat preferences rely on information in Blower (1985) and Lee (2006). Another valuable resource is the British Myriapod and Isopod Group website https://www.bmig.org.uk

Description of species are intended as an outline only and not as a reliable identification guide; for this see Blower (1985). Lengths of adults included are approximate only as these can vary considerably in many species.

1. ***Cylindroiulus punctatus*** (54). This is the most widespread and common species in Britain, associated with woodland but occupying other habitats as well. It can be found in decaying wood and in leaf litter. Light brown with dark brown ozadenes, up to about 25mm long, when viewed from above the tail is seen to be spoon-shaped.

2. ***Tachypodoiulus niger*** (45). Occupies a variety of habitats. Occasionally it can be found at rest by day on tree trunks, possibly having climbed in order to feed on lichens and algae. Adults are about 30mm long, black with white, comparatively long legs that are clearly visible either side of the body if viewed from above when the animal is crawling. Image above.

3. ***Polydesmus angustus*** (40). Widespread and common in a range of habitats from woodlands and conifer plantations to gardens and farmland, this millipede is said to sometimes feed on strawberries. Up to about 20mm long, it lacks eyes and has 20 body segments. Image above.

4. ***Glomeris marginata*** (38). The Pill Millipede. Although widespread and common, this millipede is found more often in deciduous woods and open areas in calcareous districts and less so in synanthropic sites. One study found that it eats 10% of its body mass in dead plant matter per day, making it an important decomposer. Length up to 20mm. Images above.

5. ***Nanogona polydesmoides*** (27). Superficially similar to *Polydesmus angustus* (no. 3 above) but not at all closely related, this species has 30 body segments and quite obvious eyes. Its life-cycle is probably annual, individuals becoming adult in autumn and winter. Length approximately 20mm. Image above.

6. ***Brachydesmus superus*** (28). A flat-backed millipede related to *Polydesmus angustus* (no. 3 above) it can vary in colour from white to pale grey-brown and lacks eyes. It has an annual life-cycle, generally maturing and breeding in spring. Length approximately 9mm.

7. ***Ommatoiulus sabulosus*** (20). At 20 to 30 mm long, this large and strikingly marked millipede is easily recognised by its two orange-brown dorso-lateral stripes set against a black or dark brown background. There is a form in which the two stripes are reduced to a series of spots but individuals of this type have not been seen in Cleveland during the recording reported here. It is generally widespread and common, including among sand dunes, other coastal sites and on heathland. It climbs actively and can be found on tree trunks and walls.

8. ***Ophyiulus pilosus*** (18). A dark-coloured snake millipede similar to *T. niger* (no. 2 above) but smaller (length 15 to 25mm), proportionately more slender and with darker legs. When handled it often responds with vigorous thrashing movements. Immature individuals are paler than adults and have dark-reddish ozadenes. This millipede can often be found in leaf litter but it has no particular association with any habitat.

9. *Julus scandinavius* (17). This is another dark-coloured snake millipede, larger than *O pilosus* (no. 8 above) at 20 to 30mm long and proportionately less slender. Its legs are darker than those of *T. niger* (no. 2 above). At a national level it is said to be associated with deciduous woodlands and more acidic sites, being less frequently found on brownfield sites and farmland.

10. *Cylindroiulus britannicus* (12). This species is found chiefly under the bark of dead tree trunks, both standing and fallen, and beneath bark and timber on the ground. It does also occur in leaf litter. Its dark-red ozadenes and lack of a projecting tail are distinctive features but it is very similar to *Cylindroiulus latestriatus* (no. 16 below). Length 10 to 15mm. As its specific name suggests, the large majority of its European population occurs in Britain.

11. ***Proteroiulus fuscus*** (11). This is a small but widespread and common species, length about 7.5mm. It has very similar habitat preferences to *C. britannicus* (no. 10 above) with a preference for non-calcareous soils. *P. fuscus* is parthenogenetic, as described earlier. In spite of its small size it takes three years to reach maturity.

12. ***Melogona scutellaris*** (11). This is a small, pale, flat-backed form with eyes and with laterally expanded cheeks. Length 6 to 8mm. It is widespread but locally distributed nationally, occurring in a range of habitats. It has an annual life-cycle, adults being found mostly in winter and early spring.

13. ***Archeboreoiulus pallidus*** (7). The orange ozadines of this small species are distinctive (length 9 to 14mm but see *Boreoiulus* tenuis, no. 18 below). It is a millipede of cultivated sites, including gardens, and is likely to be more common in Cleveland than these few records suggest.

Clarkson's Wood	NZ7017	15.04.1990
East Arnecliff Wood	NZ789047	18.08.2013
Cross Wood, Flatts Lane	NZ543169	15.12.2013
Low Gill, Ormesby	NZ527158	23.10.2014
Cliff Ridge Wood	NZ576113	06.09.2016
Margrove Park Wood	NZ654152	14.09.2016
Errington Wood	NZ62582032	09.10.2018
Ormesby Hall Garden	NZ528167	25.03.2021

14. ***Chordeuma proximum*** (7). Related to *M. scutellaris* (no. 12 above) but larger (11 to 13mm) this is another species with eyes and laterally expanded cheeks. It has a strong association with deciduous woodland and has a south-westerly distribution in England and Wales. It was first recorded in Yorkshire in 2013 (Wardhaugh 2014). Since then it has been found at several other localities:

Cliff Rigg, Great Ayton	NZ56851182	16.05.2013	(First Yorkshire Record)
Cliff Ridge Wood	NZ572116	09.11 2013	
Roxby Wood	NZ755167	13.11.2013	
Easington Wood*	NZ752169	13.11.2013	
Garbutt Wood*	SE50458330	18.08.2018	
Saltburn Gill*	NZ67412074	12.11.2018	
East Arnecliff Wood*	NZ78660493	20.10.2020	
East Arnecliff Wood*	NZ78370500	20.10.2020	

* = records of females, which cannot be distinguished from female *C. sylvestre* on appearance so should, strictly, be recorded as *Chordeuma* sp. However, as the latter is known from only a very few sites in Cornwall it is perhaps safe to assume that these are all *C. proximum.*

15. ***Craspedosoma rawlinsii*** (6). The red-brown colour of this millipede and the lobe-like extensions on each side of the body segments are distinctive. Length 15mm. It is widely distributed as far north as central Scotland but is generally scarce. It is a woodland species with a preference for moist sites.

Airy Holme Wood	NZ579113	17.05.1997
Ingleby Greenhow area	NZ598026	29.03.2009
Ten Acre Bank, Normanby	NZ557166	19.10.2013
Hayburn Wyke	TA0096	11.09.2014
Hayburn Wyke	TA0097	11.09.2014
Newton Wood	NZ574121	22.03.2016
Roxby Wood	NZ761170	08.10.2016
Avens Wood	NZ700135	14.11.2016
Ashberry Reserve, Rievaulx	SE56838502	20.05.2020
Millbank Wood, Kildale	NZ59500935	05.05.2021

16. *Cylindroiulus latestriatus* (3). Length 9 to 16mm, this species is very similar in appearance to *C. britannicus* (no. 10 above). It occurs in coastal habitats, notably sand dunes.

Marske dunes	NZ634231	25.04.2003
North Gare	NZ53642840	16.06.2019
South Gare	NZ55762719	01.04.2021
South Gare	NZ56192706	02.08.2021

17. *Blaniulus guttulatus* (2). The pale colour and blood-red ozadenes render this small species quite striking in appearance (length 8 to 15mm). Rarely found in woodlands it is strongly synanthropic and can be an agricultural pest. It takes four years to mature but moves deeper into the soil in winter making it harder to find during that season. It is possibly more common in Cleveland than these few records suggest.

Capt. Cook's Cresc., Marton	NZ52431518	28.05.2013
Crow Wood, Ormesby	NZ53301645	09.11.2014
ST Nicholas' Fields, York	SE61605163	23.09.2021

18. ***Boreoiulus tenuis*** (2). This small millipede (length 8 to 9mm) is very similar to *A. pallidus* (no. 13 above). Nationally, it has a patchy distribution but is widespread, being found in cultivated land and occasionally woodland.

Flatts Lane Country Park	NZ545159	22.03.2013
Capt. Cook's Cresc., Marton	NZ52431518	28.05.2013

19. ***Allaiulus nitidus*** (1). This widespread but uncommon snake millipede is synanthropic but sometimes is also to be found in woodlands. Adult length is very variable, 11 to 25mm.

East Arnecliff Wood	NZ789047	18.08.2013	(first VC62 record)
Stoupe Beck area	NZ952031	01.09.2013	

20. *Polydesmus coriaceus* (= *P. gallicus*) (1). This flat-backed species is common south of a line from Hull to Liverpool in a wide range of habitats, with a preference for clay soils. Length 15 to 20mm.

Saltburn Gill	NZ6720	22.04.1989	(first VC62 record)

Additional species found nearby but not in Cleveland:

1. *Cylindroiulus caeruleocinctus*. Brown-black, sometimes with a blueish sheen, tail-less and large at 20 to 30 mm long, this is an easily recognised species. It occurs in parks, gardens and on cultivated land, being associated with calcareous soils, or possibly just drier ones. Lee and Richardson (1989) ranked it as the 19th of 34 species recorded in Yorkshire at the time. Lee (2006) indicates a scatter of records west of Scarborough.

Duncombe Park	SE612825	09.04.2013
Helmsley area	SE604836	30.10.2014
St Nicholas' Field, York	SE61765188	23.09.2021

2. ***Cylindroiulus londinensis***. One of our largest millipedes, proportionately broad and up to about 50mm long. Widespread but nationally uncommon, occurring chiefly in south-east England. Lee and Richardson (1989) ranked it as the 30th of 34 species recorded in Yorkshire.

Crimdon Dene	NZ48433673	23.05.2018
Castle Eden Dene	NZ44964046	12.10.2019
Hart to Haswell Walkway	NZ48073641	11.05.2022
Hart to Haswell Walkway	NZ47473674	11.05.2022

3. ***Brachyiulus pusillus.*** A small, distinctively patterned snake millipede, length 7 to 10 mm. Lee and Richardson (1989) ranked it as 22nd of 34 species recorded in Yorkshire.

Ashberry Pasture Resereve SE56818489 30.04.2019

4. *Polyxenus lagurus*. See notes and illustration above. Lee and Richardson (1989) ranked it as 33rd of 34 species recorded in Yorkshire. It has been found at Saltwick Bay near Whitby in the past, initially by Jackson (1919) and subsequently in 1980 and 1981 by others, where it occurred beneath pieces of alum shale. Richardson (1993) provides details of these and other Yorkshire records. See also Smith (1993). On 20.08.2021 I visited Saltwick Bay but failed to find *P. lagurus*. The area, described in detail and photographed by Jackson (1919), contained much shale but in small fragments rather than larger pieces suggesting possible change to the habitat since *P. lagurus* was last recorded here. The area searched was centered on NZ91371121.

Lee and Richardson (1989) list three further species found in Yorkshire that I have not so far found in either Cleveland or nearby parts of Durham or Yorkshire. These are *Nemastoma varicorne, Polydesmus denticulatus* and *P. inconstans.*

The Table below lists all species recorded in Cleveland (as defined above) ranked by number of one km square records for each. The rank order for Watsonian Yorkshire as found by Lee and Richardson (1989) is included for comparison.

Species	No. one km square records	Rank	Yorkshire rank (Lee & Richardson 1989)*
Cylindroiulus punctatus	54	1	2
Tachypodoiulus niger	45	2	1
Polydesmus angustus	40	3	3
Glomeris marginata	38	4	4
Brachydesmus superus	28	5	10
Nanogona polydesmoides	27	6	6
Ommatoiulus sabulosus	20	7	9
Ophyiulus pilosus	18	8	8
Julus scandinavius	17	9	7
Cylindroiulus britannicus	12	10	13
Proteroiulus fuscus	11	11	5
Melagona scutellaris	11	12	15
Archeboreoiulus pallidus	7	=13	14
Chordeuma sp.	7	=13	(no records)
Craspedosoma rawlinsii	6	15	21
Cylindroiulus latestriatus	3	16	23
Blaniulus guttulatus	2	=17	12

Boreoiulus tenuis	2	=17	18
Allaiulus nitidus	1	19	31
Polydesmus coriaceus	1	20	20
Total	**350**	**/20**	**/34**

* = Rank order for Watsonian Yorkshire based on number of 10km square records (Lee & Richardson 1989).

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