

# CRS NEWSLETTER

## Beetle recording in Leicestershire and Rutland Newsletter No 4



### Newsletter news:

A long time has passed since Derek produced the first recording scheme newsletters, numbers 1, 2 and 3: 1984, 1985 and 1986 respectively. In fact it's over 30 years in which a lot has happened during this period. Since then, the main sources for beetle news have been in the regular newsletters of the Loughborough Naturalists Club and the Leicestershire Entomological Society (LES) and more recently occasional entries in the Leicestershire Recorder, the latter initiated by Leicestershire County Council, later taken over by the Leicestershire and Rutland Wildlife Trust. Also a series of detailed reports have been produced by various authors as LES Occasional Publications (LESOPS) and made available through the LES and also by a link on NatureSpot. All the above will continue, but it has been felt, due to a mixture of editorial intricacies, space and time, publication of VC55 beetle information

has been somewhat restricted, maybe now is a good time to reinstate the Coleoptera Recording Scheme newsletters. The recently formed CRS Facebook site has met with reasonable success and has 37 members. This form of social media is not everyone's cup of tea, as it can be yet another site to log into etc, but to me one of the main drawbacks is the "archiving" of information, or at least the inconvenience to book mark or save snippets of information for later use as everything just keeps getting pushed further down the page, ultimately becoming "lost" or at best challenging to retrieve. Also the act of attaching and accessing files/pdf's seems to be somewhat intermittent, as everything has to be either stored as a jpeg or linked to an offsite source, making it all rather fiddly, the same applies to creating a photographic gallery. I'm not sure if rejuvenating the CRS newsletters will be the answer, but it does

give us the freedom to put into print what we want and when we want to without having too many restrictions imposed on us, although I also do not want to make this an onerous chore, where it ceases to be enjoyable. Derek provided all the content for the original newsletters together with just the odd snippets from members. In the newsletters Derek stated the aims of the recording scheme, he proposed field trips and reported the results plus any relevant news he thought ought to be given out. I think this system worked pretty well, as waiting/begging people for copy, editing and re-typing, can make things a little more complicated than needs be, so I would like to stay with this system, at least for the time being. The CRS Facebook site will continue, it's low maintenance and an easy site to operate and everyone gets a chance to contribute. So basically the plan is to follow Derek's original format and try to keep those with an interest in beetles up to date with what is happening within the two counties. I don't plan to produce a newsletter on a rigid 1, 2, 3 or 4 times a year but more of a casual basis when I have the time and enough interesting copy to use. I have also played with the idea of instating a website and this may still be a possibility. A website would allow the flexibility needed to easily attach pdf's, form a gallery etc.

Essentially what I would like to do is encourage budding coleopterists to be more involved with all aspects of beetle recording in VC55, but particularly field work. It needs to be stated here that my knowledge of beetles is still moderately limited, but I'm willing to help out where I can. By having an informal group this could be achieved and no doubt all of us would be on a bit of a steep learning curve.

The main focus of all three of Derek's original newsletters was to arrange a series of Field Meetings, which took place on a Saturday at monthly intervals. The reasoning was not only to generate records

but also to bring Coleopterists together to exchange ideas and learn and practice new techniques with each other in an informal and friendly atmosphere. The following newsletter would then summarize the results of each trip with a list of what was found and where.

Identification workshops were also a feature and at the time it was possible to use the museum collections, however with the restrictions imposed by the Government on the County Council, this option is now not freely available. We may on the odd occasion with considerable negotiation, be able to arrange a morning or an afternoon here with the collections in the future. There may be other alternative ways around this, as all we would need is a (relatively small) room to arrange specimens and set up minimal equipment (a couple of microscopes) for discussion. The Leicestershire and Rutland Wildlife Trust could help out here to, with the field room at Charnwood Lodge, which has power plus a limited amount of parking (but no toilet facilities) and is in a superb environment for beetling. I think the field room at Charnwood Lodge would make an ideal place to start, being reasonably central for most. Plus the first meeting ought to be an informal one, get to know each other and possibly plan any future activities. Basically just generally get to know what everyone thinks and/or wants, or indeed if a newsletter is really needed. Also the new Volunteer Training Centre at Rutland Water may be a possible venue. If anyone has any other suitable ideas worth investigating, please let me know. I don't envisage this informal group to be over populated probably at best half a dozen participants, so we do not want to be paying for study space!

The format for a day's event could follow a morning of fieldwork then after lunch the afternoon spent on identifying our catch, releasing back on site everything that can be identified there and then and only

retaining certain specimens for critical examination. Obviously this format can only take place where we have a room at our disposal, but if not, this will not deter us from investigating the countless sites throughout both counties in the future that may lack such amenities.

Other features of this newsletter will be the publication of significant finds, and maybe encouraging others to investigate similar situations in the hope of repeating this success.

Identification articles ought to figure high on the agenda for publication, as well as seasonal collecting methods and opportunities i.e. host plants, flood refuse etc.

An annotated Checklist to the Beetles of VC55 was produced early 2015, with Derek's original 65.000 records up to 2011 forming the main core. Approximately 15.000 records have been added over the period from the beginning of 2011 to the end of 2017. We are now at the end of 2018 and the data base now holds around 80.000 records. The records received, seem to fall into two broad categories, focused collecting and casual observations. I think it's fair to say that with such a small membership there have been very few responsible for providing the records through focused collecting i.e. going into the field and specifically targeting beetles. The records from casual observations have mainly come from members of the Loughborough Naturalists Club, who supply records for the Club's publications, particularly their quarterly bulletin Heritage. Also there are a considerable number of records received from a growing number of recorders from NatureSpot, established 2009 with the aim to record the wildlife of Leicestershire and Rutland. The whole VC55 Coleoptera database is kept in a continually updated Excel spreadsheet the order being, Checklist of Beetles of the British Isles, 2nd Edition, A. G. Duff 2012.

Records with enough locational data i.e. a minimum of a 4 figure grid reference are entered into MapMate where distribution maps are instantly generated. With certain historical records the location is very vaguely stated such as SK, SP, Leicestershire or Charnwood etc., these records cannot be entered into MapMate and therefore the list of species and data in MapMate are not as complete as one would have liked. A similar situation arises with dates for example 1987, 1848-1895, May 1990, fortunately most date ranges can be entered into MapMate. Nevertheless Excel and MapMate can be interrogated in various ways, work reasonably well and are not too onerous to maintain.

I'm hoping that MapMate will soon adopt the latest 2018 edition of the

**Checklist of Beetles  
of the  
British Isles**

by Andrew G Duff.

This will bring the total of species up to 4131 of 102 families in 1295 genera.

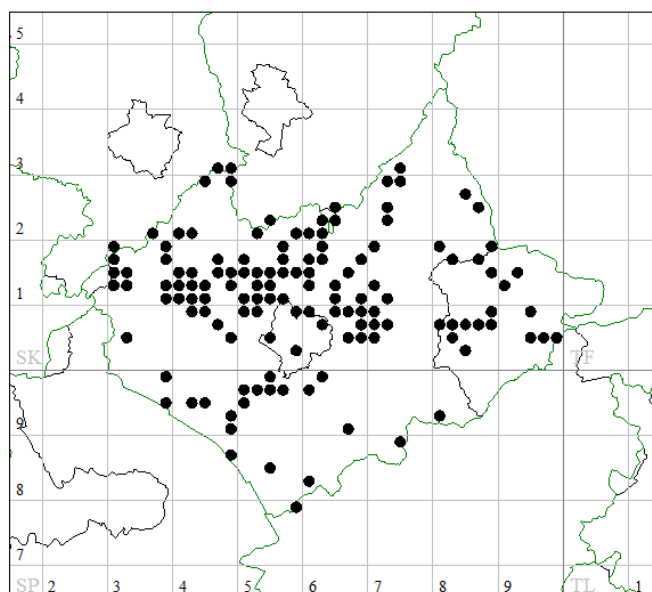
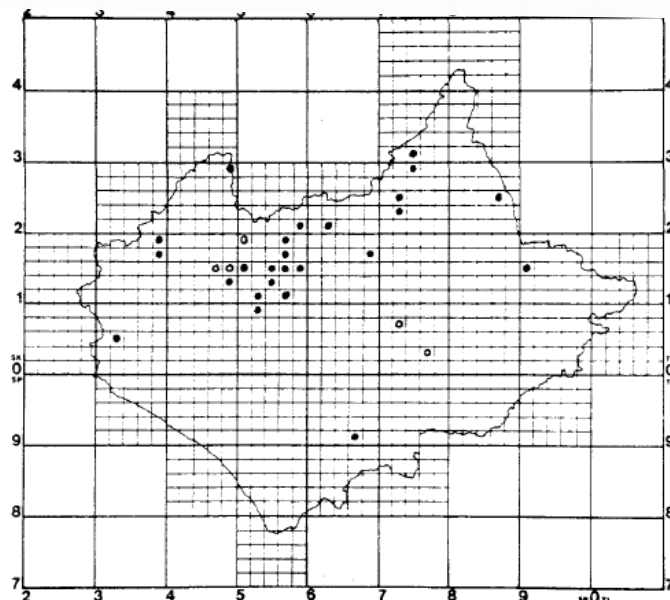
The following two maps show the distribution of *Agabus bipustulatus* one of our more common water beetles. The top map is the one that Derek used in Newsletter No2 to illustrate the paucity of records, showing records up to 1984. The map below this is the current map from MapMate to the end of 2017, with the addition of over 30 years worth of extra records for a comparison, the difference is clearly seen.

Distribution of *Agabus bipustulatus* (L.) in Leicestershire

o = pre 1970 records

● = post 1970 records

Local distribution maps being very fashionable, here is an example showing the distribution of records for the second most commonly recorded species of water beetle in Leicestershire. It gives some idea of the level of water beetle recording in the county, though several sources are yet to be tapped for records. The Balfour-Browne Club meeting in September should add lots of dots.



## VC55 Coleoptera Verification

One of the ultimate aims of the scheme will be to continue to add new records to the existing database. Therefore it is the responsibility of the individual to be as careful as possible when submitting records. Any doubtful records will be omitted, any challenging species will be put to one side until an identification can be sought. We all must be very strict on what gets entered into the database, once erroneous data is entered it can be extremely difficult to filter out and be corrected. Thus leading to incorrect information for future reference and giving a false indication of our beetle fauna. I'm sure we will all have plenty of instances where our records will not be accepted due to an assortment of reasons, we all need to agree and respect this arrangement, if we intend to maintain a "clean" database.

The following 'Verification Guidelines' have been devised and compiled to help recorders decide which beetles need careful consideration before being submitted to the Leicestershire and Rutland Coleoptera Recording Scheme.

It must be accepted in such a speciose group there will be relatively few species that can be reliably identified without the need for closer critical examination. These will be the more distinctively patterned or species that most recorders are familiar with. Some may be able to be identified from very detailed photographs that show the necessary characters needed to achieve a positive identification. Typically, these records will be accepted as submitted, remember a "good" photograph (or preferably a series of photographs) can be used as an aid to assign/confirm that the said specimen does belong to the correct family/genus. Only those, which occur outside, their usual flight period, habitat or geographical range will be queried. Species where specialist knowledge of the group is necessary or species where determination is necessary by dissection is required are also likely to be questioned. With unfamiliar species it will be wise to retain the specimen at least until a more experienced party has looked at it, otherwise it may possibly be rejected. Specimens can be kept (alive) in a tube with a blade of grass to help stop

dehydration in the fridge for several days, while further action can be discussed. Or if the beetle is freshly killed, it is recommended placing the specimen/s on a pad of paper kitchen towel which has been soaked in (clear) vinegar. This will keep them relaxed and all appendages supple/pliable to help with further manipulation if needed to see certain characters. **It is crucial to keep all collecting data with each batch of specimens.**

Unfortunately it would not be helpful to provide a list of species, which can be identified by the above means, as there are just too many to make such a list workable.

However, it will assist the scheme organiser if these checks are made to rule out any potential misidentifications before submitting the record. For those species that belong to the "easily recognised" groups this sort of information is readily available in books and on-line facilities. Once experience has been gained with the different families there will be many species that can be accepted without further evidence being required. In certain instances where a recorder has had the species checked previously it is unlikely that subsequent records of the same species will need querying again (unless dissection is required or, perhaps, the species is very scarce).

**Why additional evidence may be needed:**

Many beetles are not straightforward to determine. In these cases it is best to assume that species, that have not been encountered before will be best retained as a photograph (or in most cases a specimen, see the guidelines) for examination by the scheme organiser or an experienced beetle recorder.

Sometimes a photograph will not suffice and a specimen will be required, for example identification can often hinge on obscure bristles, or other parts of the beetles structure that are not readily shown on a photograph. If in doubt, submit a photograph whilst retaining the live specimen. It should be borne in mind that the relevant scheme organiser/expert may not be able to respond immediately. All new vice-county records should be supported by one or more good quality images or, in most cases, a specimen. Please bear in mind many species cannot be determined without a specimen (see guidelines). If a scarce or very scarce species is suspected and a specimen is likely to be required for accurate determination, please ensure that only one, or at most, very few, specimens are retained.

When taking photographs of beetles, ensure that the specimen is not too worn or covered in dirt etc. (this can make identification by this means difficult or impossible). It is important that the specimen is clearly visible, that the picture is not blurred and that, preferably, several images from different angles are provided. It is understood that "field photography" does not provide the best opportunities to photograph the crucial characters for identification. Although they can be important in illustrating the habitat in which the specimen/s have been found. If possible an idea of scale should be

included, but this again may prove difficult and if guessed, this must be stated. Additional information, such as capture date, location and host plant, where applicable will help aid determination. If subsequently submitting a record when, the specimen has been determined by someone other than the collector, ensure that the determiner's name is given along with that of the collector.

**The use of the Verification Guidelines**

The criteria listed below aim to provide a framework for the verification of beetles for the Recording Scheme. These criteria cover the adults and also species, which can be regularly recorded as leaf-mines/galls on host plants.

The grading assumes that beetles identified were in a good or adequate condition when originally determined. When assessing submitted records or datasets, consideration is likely be given to the level of experience and expertise of individual recorders as part of the verification process, for example even very common and relatively distinctive species could be misidentified by novice recorders (it is also worth noting even more experienced recorders can and do make similar mistakes). The relevant scheme organiser should be involved in the verification process (and, where relevant, in identification) and given the opportunity to view a specimen or photographs if required.

Additional evidence, such as flight period, available habitat or larval food plant, should be used when verifying records, particularly for scarcer or more unusual records. These details are not given in the tables below. In the event that a species has been bred from a known host plant, this may downgrade the verification evidence required for some species. In the tables that follow a few very brief notes are given in a comments field.

## The Verification Criteria

*Important note:* All new and suspected Vice-county records should be supported by one or more good quality images showing all of the critical identification features or **preferably** by a specimen (see guidelines).

### a. Adult beetles:

**Category 1:** Generally distinctive species unlikely to be confused with other species. Usually accept record within documented range and usual occurrence period for the region; otherwise one or more good quality photographs, or possibly a specimen, would be required. Applies to species, which will quickly become familiar to those gaining experience in beetles.

**Category 2:** Can be confused with other species. Good quality photographs or possibly a specimen will be required if the recorder is not familiar with the species. If records have previously been submitted and accepted, Category 1 criteria may apply subject to confirmation from your Scheme Organiser. Worn examples are likely to be unidentifiable unless a specimen is retained for microscopic examination.

**Category 3:** Very scarce species (includes very scarce adventives/immigrants). A voucher specimen may be required by your Scheme Organiser (seek advice before releasing the beetle). A good set of photographs showing all critical identification features clearly may suffice with distinctive species.

**Category 4:** Specimen required, with dissection probably required.

### b. Larval feeding signs on host plants:

For many larval feeding sign records great care should be taken to ensure the host plant is correctly named. A wrongly named host plant will almost certainly lead to an incorrect beetle determination.

**C1:** Same as Adult Category 1.

**C2:** A good quality photo or specimen of the case and plant/pabulum is required.

**C3:** A good quality photo or specimen of the case and plant/pabulum and the bred beetle is required.

**C4:** As stated in C3 plus the beetle requires particularly close examination or dissection. Information on the style of feeding (e.g. peppering leaves, consuming large parts of a leaf, forming a gall etc.), the time of year when the fully fed larva occurred and habitat, amongst others, can all assist with identification.

**c. Leaf-miners:** With very little literature available on the identification of larvae of most beetles, this not at all straightforward. So reliable identification will be very restricted to a few of the more well known species.

**Category A:** Accept record without the need to see the actual leaf or a good photo, very few species will fit this category.

**Category L:** Either the leaf (preferably with the larva) or a good photograph required.

**Category R:** Beetle needs to be reared and, in some cases, possibly dissected.



**Field Meetings** I am thinking of organising an initial “tentative” series of field meetings for the first half of 2019, depending on participants preferences we can fill in the rest of the year as we wish. Unless otherwise stated the meetings will begin at 10.00am to include a lunch break just after mid-day, and then either continue with with field work or an identification session during the afternoon depending on the location and the preference of the participants. Be aware that most of the proposed locations will not have shelter if we encounter adverse weather or toilet facilities, however there may be a cafe or public house close by we could use. At present no specific dates are set, just the month, as I prefer to leave it to a few days before, this means we can take advantage of what the weather decides to through at us. I realise this is far from ideal, but I think it may actually work out better in the long run. About a week before I will post a reminder on the FaceBook site as advanced notice, this way we should have a better idea on the weather conditions for the coming days. I realise that we all have various commitments and this is yet another one to add to the list, so if it's thought that the field trips are unnecessary, then they can easily be disregarded.

**April:** Charnwood Lodge : A large area with a good mix of habitats, grassland, woodland streams and ponds. Hopefully we will have the added benefit of the field room for lunch, this will give us a secure place to get to know each other while getting on with any identifications. We have tea/coffee making facilities, but a packed lunch is recommended. Meet off the Abbey Road, drive along the track through the gate and pass Charnwood Lodge Gate Cottage on the left, as this gate is not locked please make sure it is closed behind you, continue to the reserve entrance gate at **SK 4629 1566**. If there are just a few of us, we may be able to drive down to the buildings in the centre of the reserve.

**May:** Saddington Reservoir : This was one of Derek's favourite sites and he recorded many rare beetles here which even now some are difficult to find elsewhere. He described it as “proving to be the best aquatic marginal site in the county”. The gently sloping edges are particularly good for Carabids with the shallow vegetated margins offering us a chance for a few water beetles. Meet along the road running past the reservoir towards Gumley at **SP 6656 9102**.

**June:** Owston Wood : Forming part of the historic Leighfield Forest very little recording has been done here, unlike both the Launde Woods which have produced an impressive list of species. Meet on the Owston Wood Road, which cuts through both woods, parking here will be limited to the roadside at **SK 7970 0668**.

**July:** Grace Dieu Wood : A large and varied typical Charnwood Forest woodland including the Grace Dieu Brook. The fields adjacent to the ruins will also merit a search. We could take the opportunity to take refreshments at the pub and discuss further activities, sitting outside if the weather is kind to us. Meet in the Bulls Head public house car park at **SK 4313 1808**.

The above programme does not have to be set in stone and if thought necessary or access may prove a problem to any of the above, then alterations can be made, details of which will be sent out as soon as possible.

**\*Additionally** there may be an incredible opportunity to undertake some recording at the Game & Wildlife CONSERVATION TRUST Allerton Research Project at Loddington. If so notification will be sent out to interested parties, this will be a chance not to be missed.

The Allerton Project's aims are to research the effects of different farming methods on wildlife and the environment, and to share the results of this research through educational activities.

The Allerton Project has been working to this end for the past 25 years. Their Fields for the Future, records the results of the first two decades of research and outlines some of the educational activities they are involved with.

**There's still a few things to be getting on with until the spring arrives:**

Towards the end of December we're in the depths of winter and beetle activity is at a minimum and finding beetles can be hard work. Probably the best (easiest) plan of attack is by sieving coarse grass tussocks, flood refuse, manure heaps and even accumulations of leaves in ditches. If you're lucky enough to find bracket fungi, especially on Birch will be worth investigating. By sieving cow, sheep and horse dung an assortment of Aphodius species should be found plus various Staphs. Once the weather starts to warm up towards the beginning of spring, Carabids will be on the move and turning stones, logs and other debris on the ground will be worth doing. General searching and grubbing, although labour intensive is a good way to find early showing species especially during late March, through to May after this many will no longer be around in the adult stage. Water beetles will be more active on warmer days, and although Derek spent a huge amount of time in the Soar and Trent valley areas, there's still great potential to increase records away from these areas.

If it was thought useful we could arrange an informal meeting with the aim of discussing further activities/sites to visit/publications, what could be included in the newsletters or anything thought to be relevant to the scheme.