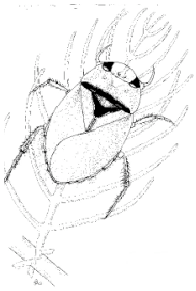

Het News

Newsletter of the Heteroptera Recording Schemes

Issue 1
Spring 2003
2nd Series

Editorial:

Welcome to the first issue of the new-format *Het News*. We hope this newsletter will be a means of sharing news and information about land and water bugs, stimulating interest, discussing problems, & answering queries. We also hope that it will be as informative, entertaining and readable as the Heteroptera Study Group Newsletter, so well compiled by Peter Kirby. The intention is to produce two issues a year, hopefully in spring and autumn. The scope will doubtless vary but we plan to include both regular features and 'one-offs'. It goes without saying that any contributions, formal or informal, will be greatly appreciated. So if you visited somewhere fascinating or noticed sometihing interesting, put pen to paper (or whatever you use) and share it with the rest of us. Photos are welcome. Distribution will be primarily by e-mail, in colour, but for those with no e-mail facilities black-and-white printed copies will be available. This first issue has a strong aquatic emphasis, to complement publication of the provisional aquatic atlas, but in general we aim to achieve a balance between land and water bugs.

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Contents

The Provisional Atlas of the British aquatic bugs.

Congratulations to Thomas Huxley on the publication of the *Provisional Atlas of the British aquatic bugs*. If you do not have your copy of the Atlas it is available from:

CEH Publication Sales, CEH Monks Wood, Abbotts Ripton, Huntingdon, Cambs, PE28 2LS
£8.00 including p&p.
Tel: 01487 772400 Fax: 01487 773590
Email: rmt@ceh.ac.uk

It is fascinating to look at the species distributions and consider the empty squares! We (BSN & SEB) did this then headed for some unrecorded 10km squares near home. These were not endowed with great water bodies, but it is amazing what even unpromising looking canals & ditches can harbour. We succeeded in finding 10+ spp in SP81, mostly in the Aylesbury arm of the Grand Union Canal and a few spp in a new village pond in SP72. A trip to Fulbourn Fen in Cambs, TL55, was equally rewarding, if not more so. In a seemingly desolate arable landscape we found 3 spp of *Gerris* (*gibbifer, thoracicus,* & *lacustris)* in a shallow trickle at the bottom of a deep ditch, sharing the water with a grass snake. We added to our bug species in field dykes, a flooded hollow and a fishing lagoon. *G. argentatus* in the marginal vegetation of the fishing lagoon, brought our *Gerris* count to 4 and total list to 9, not a huge number but satisfactory considering the unpromising landscape.

Sheila Brooke

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Aquatic Hets ..... what next?

Sheila Brooke

I have started entering records onto R2002 although I have not dismissed MapMate and may eventually use both.

I will be happy to receive your records, preferably by e-mail on spread sheet but if you do not have the facility to do this then Record Cards will be fine. The information required at the very least is date, location, grid reference, vice county name or number, recorder & determiner, as well as species names, of course. It would also be useful to have some habitat information such as a brief description of the water body, including approximate size, flow, vegetation, substrate and altitude where appropriate. We have been looking into redesigning and updating the Record Card and may, in due course, send it as a PDF file for comments & trial.

I do not yet have the Provisional Atlas data but hope it will be available soon. I will then, hopefully, be able to answer any queries you may have about water bugs in your area.

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Land Hets ..... update

Bernard Nau

Back in 1984 I took on the role of Organiser of the Terrestrial Heteroptera Recording Scheme, on a care & maintenance basis. My role was to check record cards as they came in, for accuracy & completeness, and file them; in addition I identified/confirmed specimens. There was little prospect of an atlas since there were no resources for computerising the records. In any case, with S&L(1959) out of print, increasingly expensive, and increasingly out-of-date, there was a lack of a readily available identification guide so records submitted became correspondingly sparse. The situation is currently as follows:

- The publication of four of the five volumes of the *Catalogue of Palaearctic Heteroptera* provides up-to-date nomenclature which now enables us to 'talk the same language' as Continental heteropterists. We just need the last volume, which will deal with the shieldbugs etc., and this seems likely to appear in the next year or so.
- The species list for the British Isles has grown from the 509 (plus a few 'un-numbered') treated in S&L, to 576 on the checklist I maintain for my own use – give or take a few, depending on where one draws the line on very rare vagrants, and introductions. Mike Wilson (Nat. Mus. Wales, Cardiff) is working on a checklist of the Hemiptera, which will include a definitive checklist of the Heteroptera.
- S&L is now readily available on CD at a modest price.
- Pete Kirby and I have put together draft updated illustrated keys covering all the British species. Pete did the species in the front half of S&L, I did those in the back half (Miridae onwards). On request, I can provide by email (in 'pdf' format): (i) my draft checklist, (ii) the Miridae keys (iii) the keys to the wetland/aquatic species. This is a free service in return for feedback on problems encountered, desirable additions/changes, etc.
- Pete and I have been working on 'son of S&L', a BENHS project, in between earning our respective livings. The current situation is that I have photographed most of the species to provide the required illustrations, usually from fresh material. In addition to the above-mentioned keys, Pete has written the species accounts for his species and I am part-way through mine. The biggest remaining task is editing the photographs. The timescale to publication is, realistically, not less than two years.
- 'Shieldbugs and allies' are receiving additional attention. Roger Hawkins is working on a volume on these, for the Surrey Wildlife Trust series. This will comprise text, Surrey distribution map, and colour photograph for each species – essentially all the British shieldbugs and
- Coreids. This is due to go to press this autumn. Also, I am working on a publication covering the same group of species but aimed at a rather different audience. This is for the Field Studies Council's successful 'Identification Guide' series of glossy laminated fold-out colour guides. This too is likely to appear during the next twelve months.
- The 1984 BRC Terrestrial Heteroptera recording card (RA 57) is considerably out of data and I plan to issue a new card as soon as the new nomenclature is available for the remaining species.
- I also have in mind the possibility of a 'shieldbug & Coreid' card. The idea being that, although these species will be on the main card as well, they can be 'marketed' separately to Coleopterists and others (e.g. orchid/butterfly/dragonfly 'twitchers') who notice these attractive insects and will have the the means to both identify and record them. Do you think this is worthwhile?
- Notwithstanding the existence of the above mentioned recording cards I would much prefer that recorders submit records by email, in computerised form. The time needed for a recorder to enter records into a computer (whether using spreadsheet, word-processor or database) is about the same as that to write out a card and the job does not have to be redone (with new typos) by someone else in order to produce distribution maps and other reports. I speak from 18 years experience of computerising my own field records.

From the Regions ..... S. Hampshire

Water-scorpion at mercury vapour light

Martin Harvey*

On 4 April 2003 I was running a mercury vapour moth trap in my garden, in Colden Common, near Winchester (South Hampshire). The total of 19 species of moth was a good one for the time of year (it was a warm night), but I was even more intrigued by the discovery of a water-scorpion *Nepa cinerea* on the sheet directly underneath the trap. Southwood and Leston (*Land and Water Bugs of the British Isles*) say of *N. cinerea* that "although provided with complete hind wings, most specimens are flightless because of retarded development of the flight muscles; however, although it is seldom seen in flight and never taken in light-traps, flights do take place and enable the species to occupy new ponds".

My light-trap was positioned some 20 metres from the small stream that runs at the bottom of the garden, and there is a greenhouse and a substantial conifer hedge between the trap and the stream. The ponds in Colden Common are much further away. It seems extremely unlikely that *Nepa* would have crawled to the trap, and presumably in this case it was both flying (perhaps from some distance) and attracted to the light source. Is this an unusual observation, or have others seen similar behaviour since Southwood and Leston was published?

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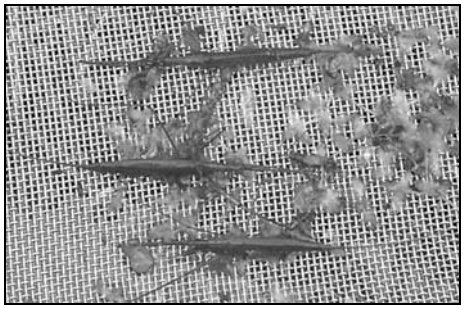
Ed. We haven't seen *Nepa* fly but Adrian Chalkley observed that *Nepa*, which spent daylight hours in the stream at the bottom of his garden and had been seen wandering around hunting after dark, was found in his newly constructed pond one morning. This was some way away from the stream so "did it fly?" An equally unlikely candidate for flight is *Ranatra* but it was seen in flight in 1996 by a member of the Suffolk Naturalist's Society as reported by Adrian Chalkley (both in HSG Newsletter, no 13, March 1996). In 2000 Jonty Denton witnessed Ranatra in flight in Surrey leaving him in a state of "shock and delight". (Br.J.Ent.Nat.Hist,**13:**243).



Ranatra linearis —*one sweep of the net!*
Felmersham NR, Beds. 8 May 2000

Bug focus ..... *Gerris gibbifer*

Sheila Brooke

We thought it worth selecting a different bug in each issue and making some comments about it, e.g. identification, habitat or just interesting observations. For this issue the choice is:

Gerris gibbifer

It has a fairly patchy distribution, found in various types of water both acid and neutral and sometimes at high altitude. It is not found in Ireland and there are only a few Scottish records.

I have had a population in my small garden pond for 2-3 years and have noticed that this largish bug is very often found in similar garden and ornamental ponds and is frequently seen in drinking troughs. In 2002 we found an amazing 30+ in a galvanised trough measuring about 3x0.5m. For those VCs devoid of records it might be worth bearing this in mind if you had not seen this bug in such locations. When you are out and about doing fieldwork or just having exercise, make that detour to the trough. Visits to friends and family might also reveal a hitherto unknown population in their garden pond. It may be more common than we think.

The males and females both have a yellowish tubercle on the underside of the thorax but contrary to a number of reports and descriptions, I have found that of the male to be the more obvious. [BSN: Douglas & Scott (1865) and Poisson (1957) agree with this.]

In the autumn of 2002 I cleared vegetation from my pond, principally Greater Spearwort that was threatening to take-over, and later noticed that I had a very poor second brood of G. gibbifer. I then realised that they probably laid their eggs in the stems and I had effectively wiped out a generation. Some 10 adults have appeared this year and I hope for normal generations in 2003.

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A *Micronecta* story ..... so far.

Sheila Brooke & Bernard Nau

During the year 2000, we made a concerted effort to find *Micronecta minutissim*a. This was *o*n the grounds that something called *minutissima* must surely have been overlooked! We first visited the site on the River Lea at Broxbourne where Brown found this bug in 1949, and then searched other likely sites in Herts & Beds. We obviously weren't doing this right as we didn't find any!

In May 2001 the search was resumed and at the first stop, the R. Lee at Rye House, Herts, we found several bugs that proved to be *M. minutissima.* This stimulated enthusiasm to find it in our home county of Beds, it must be here too! The second site visited for this purpose was the River Great Ouse at Bromham Mill, and sure enough here we found 'something else' among some *M. poweri*. We assumed this would be *minutissima*. At home, BSN eagerly dissected one only to find that it was neither

of the aforementioned, and being small & silky rather than large & glossy it clearly wasn't *M. scholtzi* either. Remembering that Berend Aukema had mentioned finding *M*. *griseola* new to The Netherlands a year or so earlier, he looked out diagrams of the parameres of this (in Jansson 1986, *Acta Entomol. Fennica*, **47**, 1-94) and they matched! A phone call to SEB and she was rapidly across to see it, and she too was convinced.

Subsequently we broadened our search and have now had *griseola* from the Great Ouse (Beds & Hunts), the Nene (Northants) and the Thames (Oxon). M. *minutissima* we have had from the Great Ouse (Beds & Hunts), the Lee (Herts & N.Essex)and the Thames (Oxon), plus Frensham Little Pond in Surrey, and Jonty Denton has had it in the Basingstoke Canal (N. Hants).

Interestingly, notwithstanding the fact that *M. minutissima* should, with this name, be the smallest of the Micronecta, it is in fact the second largest of our (now) four species; only *scholtzi* being larger.

In the light of experience we find that examination of the male parameres is necessary to confirm some less typical specimens of *poweri*, *griseola* and *minutissima*, and it is best to check both parameres. The drawings below, from Jansson's paper, show the differences. On the small left paramere concentrate on the extreme apex:

- *minutissima* has a prominent 'nose' and receding 'chin';
- *grisolea* has a prominent nose and jutting chin;
- *poweri* has a small nose and rounded chin.

Two features of the right paramere are useful, namely the shape of the apex and the degree of development of a triangular 'sail' on the inner (concave) margin about a third of the way from the apex:

- *minutissima* has a long tapering apex and prominent sail (turn the paramere about its long axis if not immediately evident).
- *poweri* has the outer margin of the apex angled sharply upwards and the tip is truncated with the trace of a rounded 'cap', it has no sail.
- *grisolea* has the apex angled as in *poweri* but is even more truncate, it has a sail but this is smaller than in *minutissima*.

Sizewise, *minutissima* is normally clearly larger than *poweri,* and *griseola* is subtly smaller. These size differences are slight but with practice discernable in the field. However, by 2002 we had worked out a useful field procedure for selecting 'likely' specimens for study under the microscope. This is as follows.

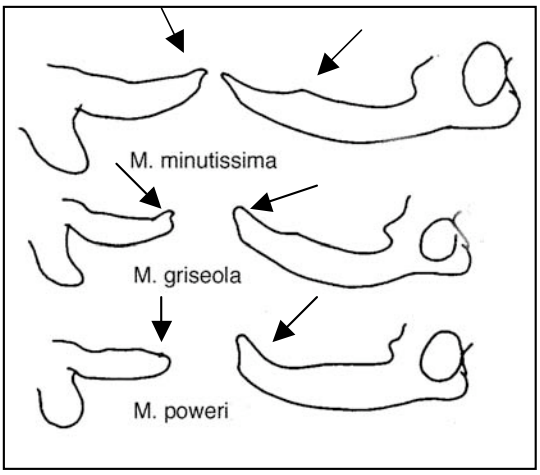
- the large shiny *scholtzi* are discarded, from the others pick out males in each of two groups as below;
  - potential *griseola*: a shade smaller than typical *poweri,* with narrower wing markings *&* a triangular dark spot on the head between the eyes, rather than a longitudinal dark band;
  - potential *minutissima*: significantly larger than typical *poweri* & diffusely marked (but look fairly contrasty when wet!).

This is quite testing on the eyesight and not foolproof but does reduces the sample size and subsequent homework.

It was noticeable that the most favoured habitat is a slow-moving river with some kind of hard substrate coated with a short 'lawn' of filamentous alga. Stray lumps of concrete, concrete bank lining, steel sheet piling, and bridge supports are all worth a look.

Dissection of males is not as 'impossible' as might be thought. We use two fine pins set in handles. With fresh material laid upside down, use the side of one needle to apply pressure on the penultimate segment of the abdomen. With luck the entire genital capsule will extrude from the end of the abdomen and can be dragged away with the other needle. You will then probably be able to see the two parameres (the left paramere small & dark, the right long & transparent). This can be sufficient for identification, but it is convenient to carefully detach them for mounting on a card with the bug. (If the genital capsule doesn't oblige, a fishing expedition may be necessary – less elegant but ultimately equally effective).

[A more formal account is due to appear in the *Ent. mon. Mag. (*possibly the June 2003 issue).]



Left & right parameres of *Micronecta* spp.
(From: Jansson, 1986, with modifications.)

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Gadget corner

Sheila Brooke & Bernard Nau

We have surely all made some piece of equipment from scratch, or adapted a standard item to better meet our needs. It is possible that we could trigger ideas from each other that would make our operations more efficient whether in the field or in the study. So here's one to start things off.

1. The *Micronecta* net

We have found an ordinary tea-strainer ideal for working shallows adjoining the bank, and it conveniently fits into the pocket, so that it is always ready to hand! In addition, for longer-range operation, a tea-strainer mounted on a long pole has also proved useful. The long-handle model is used to reach down into deep water along canal walls, bridge supports, and the like, or to reach attractive patches of gravel otherwise out of reach.

A piece of aluminium tubing from B&Q or a redundant mop handle is ideal for the 'pole'. 'Superior' tea strainers tend to be made of stainless-steel with handles spot-welded on, but these welds tend to come adrift under strain and are only suitable for light work. However, it is still possible to find old-style strainers having a single piece of thick wire looped to form the handle. These are much preferred. The wire handles can be safely deformed to fit into the end of the tube and the little loops, which rest on the far side of the tea-cup, are easily bent back underneath out of the way. Some kitchen strainers have mesh just large enough to allow the bug to slip through, so select the finest mesh available.

An incidental advantage is that, because the net is shallow (& therefore no good for Gerris!), it is possible to examine the catch with a hand-lens while still in the net in order to decide which bugs look interesting enough to warrant further investigation. At this point a wetted artist's paintbrush is ideal for transferring the bug to a tube.

Micronecta work puts a whole new perspective on kitchen departments in stores and supermarkets. The first port of call is now the sieve display, to compare products for possible construction of a *Micronecta* net, or something larger for *Sigara* upwards. BSN has used the same length of brass gas-tubing for 40 years or so, for 'large-Corixid' work, but has got through uncountable sieves.

Finally, a couple of refinements to the basic design are recommended. A drawback of a tube of aluminium or other material of high thermal conductivity becomes apparent in winter fieldwork - some of our best work is done in winter. The metal rapidly takes on the temperature of the ice-cold water so to avoid frozen fingers, slide a length of polythene tubing, also available in B&Q, over the handle end of the pole. Finally, since the tube is hollow it fills with water via the submerged end and decants the contents, possibly into your boot, from the near end as the net is raised above the horizontal (remember the ancient Egyptian water-pump?). This is easily avoided by pressing the near end into clay to plug it, in fact this seems to happen automatically when used as a walking stick.

[Next edition: **The *Saldid* catcher.**]

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Site focus..... Orford Ness

Sheila Brooke

Orford Ness is a 16 km long dynamic shingle spit on the coast of Suffolk. It is an SSSI and has been the property of the National trust since 1993. For most of the 20th century access to the Ness has been denied due to the highly secret nature of the work carried out there. There was experimental work related to early aerial warfare and prior to World War II, the development of Radar. From the 50s the Atomic Weapons Research Establishment worked on nuclear weapons development, the purpose-built Pagodas here being used for laboratory tests. The site has been open to the public since 1995 but apart from birds, plants and spiders very little biological recording has been carried out there.

In September 2002 we contacted the warden Dave Cormack and arranged a visit. He met us at Orford Quay on a hot, sunny day, took us over on the ferry, supplied us with coffee and gave us a guided tour of Orford Ness in a rather ancient Landrover. He showed us the aquatic sites he had singled out for water-bug recording …and we went fishing!

The first two sites were ponds on the shingle near the AWRE Pagodas, beyond the limit of the public access area. The first, more southerly, of these is said to be 'ancient', It is probably slightly brackish and is about 20m in diameter and less than 1m deep with shingle bottom and much *Carex* and *Scirpus*. It proved to be the richest site of the day for bugs, with 12 species including *Corixa affinis* and *Sigara selecta*, and good numbers of *S. stagnalis, S. lateralis, Calicorixa praeusta,* & *Gerris thoracicus.*

The Orford Ness south shingle-pool

The second site consisted of 2 ponds and associated marshy area, west of the AWRE pagodas. Both ponds were very shallow and more brackish than the first site. Of the 8 species found the commonest were *S. lateralis* and *S. stagnalis*, with a few *S. selecta* and *C. punctata*. Dozens of *Chilacis typhi* were 'sun-bathing' on the flower heads of the *Typha*.

The third stop was at Kings Marshes. Here there are several rectangular, brackish lagoons each of very different character. One had water resembling pea soup in colour and another was almost totally covered with vegetation and although there were shrimps in vast shoals we found very few bugs. We did, however, find *Saldula pilosella* on a muddy shore.

Unfortunately time had then run out and we had only visited a few of the possible sites. We hope to return another time to look at other water-bodies and to check on the terrestrials. It is certainly a fascinating place, we had a very interesting day and were made extremely welcome. Well worth a visit!

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Web focus

In each issue we hope to mention an Internet web-site of interest to Heteropterists. One such is the following excellent site:

www.boxvalley.co.uk

This is compiled by Adrian Chalkley. It includes a section entitled *Freshwater Invertebrate Survey of Suffolk* which includes distribution maps of the county's water bugs. It also features the Suffolk Naturalists' e-zine *White Admiral*, also worth a brouse.

Perhaps you can suggest a web site you have visited and enjoyed, if so please send us details.

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Obituary — Antti Jansson

Death of European Authority on the Corixidae.

Jansson was the ultimate authority on European Corixidae and the text below is an edited extract of the obituary by Pajunen & Hulden in *Entomologica Fennica*, 9th December 2002; which also contains a bibliography of 101 of his published works. He will be remembered here for his massive 1986 paper "The Corixidae (Heteroptera) of Europe and some adjacent regions." (*Acta Entomol. Fennica*, **47**, 1-94).

Antti Jansson was born in 1940 in Ylojarvi and started his studies in biology in 1961 at the University of Helsinki, attaining the degree of Master of Science in 1965, Licenciate of Philosophy in 1968 and Doctor of Philosophy in 1971, after studies at the University of British Columbia.

His main research interests centered on the waterboatmen of the family Corixidae. His M.Sc. thesis discussed the adaptations of species living in the highly fragmented environment of small rock pools. Soon he became interested in sound production of these insects, and his first paper on the subject from 1968 discussed the daily rhythm of stridulation of one of the rock pool species. His doctoral disssertation was on stridulation and its function in species of genus *Cenocorixa*, the main results were published in a series of important papers, which made him a noted specialist on insect bioacoustics. On returning to Finland, he started studies on stridulation of *Micronecta* species, and even used the recognizable species-specific differences as environmental indicators. Studies on rock pool corixids, especially *Arctocorisa carinata*, with highly fragmented distribution, were continued. He visited all main areas inhabited by this species and obtained live material for acoustic and breeding studies.

He also worked in a team studying Finnish *Hylobius* weevils. He was a supervisor for several students working on bioacoustics and taught in several field courses on aquatic ecology.

Later in his life, his main field of interest was the taxonomy of Corixidae. On the suggestion of his colleagues, he started working with the revision of corixids of the eastern hemisphere, and visited all important collections, both museum and private, in 1978-1980. The revision of European Corixidae was ready in 1986. Unfortunately, however, the next parts remained unfinished. He died on 16 July 2002. [BSN]

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Literature relating to British Heteroptera, 1999 to 2003.

Bernard Nau

Newsletter No. 14, March 1999, last of the 1st series, listed 'recent literature mostly 1998'. To maintain continuity I have compiled the present one, covering the period 1999-2003. If anyone can add to the list please send me details.

Alexander, K., 2003
Calocoris alpestris (Meyer-Dür), Lygus wagneri Remane and Dicyphus constrictus (Boheman), species with boreo-montane distributions expanding in Gloucestershire.
Brit. J. Ent. & Nat. Hist.: **16**, 12-13, (2003)
[All three spp.have increased dramatically in recent decades; in woodland sites.]

Allen, A. A., 2000
Peritrechus gracilicornis Puton (Hem., Lygaeidae) well established in the Studland area, Dorset.
Ent. Mon. Mag.: **116**, p65

Allen, A. A., 1999
Plant bugs (Hemiptera) on Woolwich Common, south-east London.
Entomologist's Record: **111**, p204
[Eury.oler. on Cardaria draba, 'usually on Horse-radish'. Also: Rho.sub., Coriom.dent. & Aelia(first in this area!)]

Aukema, B., Rieger, C., (eds) **1999**
Catalogue of the Heteroptera of the Palaearctic Region. Vol.3, Cimicomorpha II.
Book published by The Netherlands Entomological Society, Amsterdam. 577 pp.
[Covers Miridae; has 60 page bibliography, & 'Additions & Corrections' to volume 2.]

Aukema, B., Rieger, C., (eds) **2001**
Catalogue of the Heteroptera of the Palaearctic Region. Vol.4, Pentatomorpha I.
Book published by The Netherlands Entomological Society, Amsterdam. 346 pp.
[Covers Aradidae, Lygaeidae, Piesmatidae, Malcidae, Colobathristidae, Largidae, & Pyrrhocoridae; has 51 page bibliography, & 'Additions & Corrections' to volumes 1, 2, & 3.]

Barclay, M.V.L., Nau, B.S., 2001
A recent record of *Carpocoris purpeipennis* (De Geer) (Hem., Pentatomidae) from the west of England.
Ent. Mon. Mag.: **137**, 72
[N side of Bristol]

Bowdrey, J.P., 1999
Stictopleurus punctatonervosus (Goeze, 1778) (Hem.: Rhopalidae) rediscovered in Britain and new to Essex.
Entomologist's Record: vol **111**, pt 3, p135
[17Jul1997 The Moors, Colchester; 23Sep1997 W Bergholt Heath; 30Jul 1998 W Mersea. Grid refs given.]

Bowdrey, J.P., 2000
Spathocera dahlmanni (Schilling) (Heteroptera: Coreidae) at Middlewick Ranges.
Essex Naturalist (2nd Series): **17**, p73, (2000)
[Essex]

Brooke, S.E., Nau, B.S., 2003
The contrasting range expansion of two species of *Deraeocoris* (Hemiptera-Heteroptera) in south-east England.
Brit. J. Ent. & Nat. Hist.: **16**, 44-45, (2003)
[*D.flavilinea* & *D.olivaceus*]

Dolling, W.R., 1999
Europiella Reuter (Hem., Miridae) in Britain.
Ent. Mon. Mag.: **135**, 103-105, (1999)
[Description of *E.decolor*. Dwgs of apex of vesica of *decolor*, *artemisiae* & *albipennis*]

Eales, H.T., 2001
The occurrence of the Juniper Shieldbug *Elasmostethus tristriatus* (Fabr.) (Het., Acanthosomatidae), in Northumberland and Co. Durham.
Entomologist's Record: **113**, 13-16, (2001)
[Review of northern records. On female, berry-bearing, native Juniper (prostrate, semi-erect & columnar forms) in sunny places. Upside down, the bug resembles an unripe berry.]

Edwards, M., Hodge, P. J., 2002
An entomological survey at Maulden Wood and Pennyfather's Hill SSSI.
Consultant's report to English Nature, 20pp
[1-day visit, 20th July 2002: 17 spp Heteroptera inc: Cymus claviculus. Also Lepidoptera, Orthoptera, Coleoptera, Diptera, Aculeate Hymenoptera.]

Halstead, A.J., Malumphy, C.P., 2003
Outbreak in Britain of *Stephanitis takeyai* Drake & Mao (Hemiptera: Tingidae), a pest of *Pieris japonica*.
Brit. J. Ent. & Nat. Hist.: **16**, 3-6, (2003)
[Andromeda Lacebug. Photos of bug & damage to leaf.]

Hewitt, S.M., 2001
Saldula melanoscela (Fieber (Hem., Saldidae) new to Britain.
Ent. Mon. Mag.: **137**, p162
[Cumbrian Solway coast nr Kirkbride, 18 Jul 2000. Also F.H.Day at Kirkbride 2Jun1928 & 24Apr1945.]

Horsfield, D., 2001
Xylocoris cursitans (Fallén) (Hem., Cimicidae) new to Scotland.
Ent. Mon. Mag.: **137**, p76

Huxley, T., 2003
Provisional atlas of the British aquatic bugs (Hemiptera. Heteroptera).
Publn of Biological Records Centre, Huntingdon,118 pp
[Footnote to checklist draws attention to *M. griseola* in Bedfordshire.]

Jones, R. A. , 1999
Entomological surveys of vertical river flood defence walls in urban London brownfield corridors; problems, practicalities and some promising results.
Brit. J. Ent. & Nat. Hist.: **12**, 193-213

Jones, R. A. , 2000
Stictopleurus punctatonervosus (Goeze, 1778) (Hem., Rhopalidae) breeding in Middlesex.
Entomologist's Record: **112**, 267-268

Jones, R. A. , 2002
A preliminary investigation of the invertebrate fauna on ecoroofs in urban London. Consultant's report to English Nature
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More about this in next issue.

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B.S.Nau

For the benefit of readers who do not have the 1st series of this newsletter, the following bibliography may be useful. The notes in parentheses were intended for my own use but may also be found helpful. The remaining issues, to be covered at a later date, are no. 9 (Feb.1990) to No. 14 (Mar.1999).

Alexander, K., 1985 *Heterocordylus tibialis*. — No.5, Apr.1985, p7
[On *Genista pilosa* on cliffs.]

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[Information needed.]

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[Diagrams of genitalia and fore-tarsus.]

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.. 1984 Notes on British Miridae. — No.3,May 1984,pp3-9

.. 1984a Fruit-feeding Heteroptera - a request. — No.4,Nov. 1984,p2

.. 1985 A new species of *Psallus* on Sycamore in Europe. — No.5, Apr.1985, p2
[Psallus pseudoplatani.]

.. 1985a Mass murder in a royal park. — No.5, Apr.1985, pp6-7
[Fogging Oak tree canopies in Richmond Park,London. *Psallus albicinctus* was numerous. *Myrmedobia distinguenda* breeding on Oak!.]

.. 1988 *Odontoscelis* and *Dichrooscytus* : two cases of mistaken identity. — No.8, Dec.1988, ppp1-2
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.. 1985 Recording card RA2. — No.5, Apr.1985, p1
[RA57 card replces RA@.]

.. 1985a *Elasmostethus tristriatus*. — No.5, Apr.1985, p7,

.. 1985b Atlas of Oxfordshire Pentatomorpha. — No.6, Dec.1985, p2

.. 1985c Possible additions to the British List. — No.6, Dec.1985, p4

.. 1985d Loricula : key to species. — No.6, Dec.1985, p5
[Includes species which might occur in Britain, based on Pericart 1972.]

.. 1985e Further notes on immature bugs. — No.6, Dec.1985, p6
[List of 4 refs by Southwood on immatures.,]

.. 1987 Dowrog Common, Pembrokeshire. — No.7, May1987, p2
[Request for information. *Hebrus ruficeps*, *Fieberocapsus flaveolous* occur.]

.. 1987a Possible additions to the British List (per B.Aukema). — No.7, May1987, p4
[Common or widespread species in The Netherlands.]

.. 1987b Short notes. — No.7, May1987, p5-6.
[*Liorhyssus hyalinus*(Rhopalidae)in Cornwall & Pembs; *Deraeocoris scutellaris* in W Ross; *Elasmostethus tristriatus* several]

.. 1987c Circulation list. — No.7, May1987, pp6-8

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[*Elasmostethus tristriatus,Taphropeltus hamulatus,Peritrechus nubilus, Drymus latus, Berytinus hirticornis, Deraeocoris scutellaris, D.olivaceus*,]

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.. 1988b	Corixid update. — No.8, Dec.1988, p5, [*Corixa iberica* in Scotland. *Glaenocorisa propinqua* subspp *cavifrons* & *propinqua*.]
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Lansbury, I., 1985	Notes on aquatic bugs. — No.5, Apr.1985, p3 [1) *Aphelocheirus aestivalis, Corixa dentipes/punctata, S dorsalis/striata, Cymatia coleoptrata insularis.* 2) Hope Collections include bulk of E.S.Brown's British collection of aquatic and semi aquatic bugs.]
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.. 1983c	The more frequent Bedfordshire Bugs. — No.1,Sep.1983
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.. 1984b	Seasonal occurrence of *Orthotylus* spp. — No.4,Nov. 1984, p 7 [Table of monthly occurrence.]
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.. 1984d	Identification of Microvelia. — No.4,Nov. 1984, appendix 2pp [Key and copies of Walton's (1939) plates.]
.. 1985a	Identification of some species of Mirids and Shieldbugs while immature. — No.5, Apr.1985, pp3-5 [*Acanth. haemorrhoidale, Elasmo. interstinctus, Sehirus bicolor, Eysar. fabricii, Doly. baccarum, Pent. rufipes, Tingis ampliata, T.cardui, Aptus mirmicoides, Himacerus apterus, Deraeocoris ruber, Oncotylus viridiflavus, Harpocera thoracica, Atractotomus mali, Plagiognathus arbustorum, Cyllecoris histrionicus, Heterotoma meriopterus, Blepharidopterus angulatus, Lygocoris spinolai, Calocoris quadripunctatus, Stenodema ca;caratum, S.trispinosum*.]
.. 1985b	A few remarks on equipment. — No.5, Apr.1985, pp5-6
.. 1985c	Anglesey weekend. — No.6, Dec.1985, p3 [Species list includes: *Aelia acuminata,Monsynamma sabulicola, Neides tipularis,Globiceps cruciatus, Nabicula lineata, Coriza hyoscyami, Thyreocoris scarabaeoides*,]
.. 1985d	Observations on some water-bugs. — No.6, Dec.1985, p7 [*Mesovelia furcata, Aphelocheirus aestivalis, Micronecta poweri, M.scholtzi*.]
.. 1985e	Mistletoe bugs. — No.6, Dec.1985, p8. [*Anthocoris visci, Orthops viscicola*.]
.. 1985	Psallus postscript. — No.6, Dec.1985, p8 [*P.variabilis, P.pseudoplatani,P.scholtzi*.]
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Roche, P., Nau, B.S., Appleton, D., et al., 1984	Short notes (by various authors). — No.3,May 1984,pp9-11 [*Elasmostethus tristriatus, Holcostetheus vernalis, Palemena prasina, Nysius ericae, N.thymi, Peritrechus nubilus, P.geniculatus, Stygnocoris pedestris, Gastrodes grossipes, Anthocoris limbatus, A.simulans, Orius laticollis, Gerris lateralis, Sigara striata*.]
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(to be continued)

Please send contributions for the next issue to Sheila Brooke, by the end of October.