Het News

Newsletter of the Heteroptera Recording Schemes

Issue 3
Spring 2004

2nd Series

Editorial: There is a Dutch flavour to this issue which we hope will be of interest. After all, The Netherlands is not very far as the bug flies and with a following wind there could easily be immigrants reaching our shores at any time. We have also introduced an Archive section, for historical articles, to appear when space allows. As always we are very grateful to all the providers of material for this issue and, for the next issue, look forward to hearing about your 2004 (& 2003) exploits, exciting finds, regional news, innovative gadgets etc.

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Review
Verspreidingsatlas Nederlandse wantsen
(Hemiptera: Heteroptera)

Deel I: Dipsocoromorpha, Nepomorpha, Gerromorpha & Leptopodomorpha
B. Aukema, J.G.M. Cuppen, N. Nieser & D Tempelman: 169pp, 2002

The first volume of this Dutch bug Atlas deals with the water bugs. The text is in Dutch, making life difficult for most of us Brits, but there are distributions maps for each species, plotted before and after 1980, making comparisons possible between our shared species. There are also seasonal histograms for each species and some excellent illustrations of bugs at the beginning of each section. There is a checklist for the country as a whole and also for the individual provinces of The Netherlands. There is a comprehensive list of references.

The series apparently follows the sequence used in the Palaearctic Catalogue, in which the water bugs appear at the beginning, after *Ceratocombus* and *Cryptostemma*. This first volume combines these with the traditional water species and the saldids. Water bugs, as we know them, come last in Southwood & Leston (1959) and have usually been treated as a separate group here but, perhaps, we should now adopt the European practice — after all, the additional species are mostly associated with water or damp places.

In Britain there are 6 corixids that do not occur in The Netherlands, 3 of which are northern/high altitude species – *Arctocorisa carinata*, *Callicorixa wollastoni*, and *Corixa iberica*. The fourth, surprisingly, is *Sigara dorsalis*, one of our commonest corixids, whose niche is occupied there by *S. striata*, which only creeps into the extreme SE corner of England. The other two are *S. venusta* and *S. fallenoidea*, the latter occurring in Ireland. Interestingly our fairly widespread *Micronecta poweri* is very scarce in The Netherlands while their *M. minutissima* is widespread, but not common. In Britain *M. minutissima* is becoming more widespread in the south, perhaps due to recorder effort. *M. griseola*, as noted in the following article by Dr B. Aukema, is also a recent addition to their fauna and we both have only a handful of known sites as yet. *Hesperocorixa moesta* is also rare there while here it is widespread, albeit in the south. For most of the other corixids the distribution pattern is fairly similar in both regions.

There are 4 corixids in the Netherlands that do not occur in Britain, *S. hellensii* and *Cymatia rogenhoferi*, which are both rare, and unlikely to spread to here yet, *S. longipalis*, a little more common, and *S. iactans,* which has increased its range, is well distributed in the Netherlands, especially in coastal areas, and may reach Britain in the near future. It resembles *S. falleni*

with its somewhat similarly shaped, large palae.

Ilyocoris cimicoides is common in The Netherlands and also in southern Britain, while *Naucoris maculatus*, which has occurred in the Channel Islands, is present in The Netherlands but is rare and decreasing. *Aphelocheirus aestivalis* is widespread in Britain, especially in the south, but is known only in the extreme SE Netherlands.

Our 4 notonectids also occur in The Netherlands but they have a further 2 species, the rare *Notonecta reuteri* which has declined since 1980, and *Notonecta lutea* which is fairly widespread and may be one to look out for. It ranges eastwards from The Netherlands to the Caspian Sea. *Plea minutissima* is in both countries, as is *Mesovelia furcata,* but the latter has a southern distribution in Britain. *Hebrus pusillus* and *H. ruficeps* are both widespread in The Netherlands but the former is uncommon in Britain.

The Dutch *Hydrometra gracilenta* and *Microvelia buenoi* are fairly widespread, unlike in Britain where the species are only known in a few areas. *Velia caprai* and *V. saulii* are more common here, the latter, predominantly a northern species, is rare in The Netherlands.

In both regions *Gerris lacustris* is the commonest gerrid and while the Dutch *Aquarius paludum* is widespread, but not common, ours is limited to the south east. The opposite is true of *G. lateralis*, the Dutch having very few while here it is widespread, but not common. *Limnoporus rufoscutellatus* occurs sparingly in the Netherlands and here it is an Irish species with the occasional presumed continental migrant being found on mainland Britain.

It is interesting to compare our species and distributions with a near neighbour. There are many similarities, which is to be expected, and there are several differences, the strangest being the total lack of *S. dorsalis* in The Netherlands. At least they do not have to contend with *dorsalis/striata* intermediates!

In a future issue of Het News we will try to include a description of the species that might turn up in Britain.

Sheila Brooke

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Recent changes in the Dutch Heteroptera .....Berend Aukema

Currently, 610 species of Heteroptera are known from the Netherlands and Table 1 shows how the total has increased over the last 150 years. The Dutch database of the European Invertebrate Survey contains 130,000 Dutch records (combinations of locality & species). These records are strongly biased towards aquatic and semi-aquatic species:

- 72,761 records of 64 aquatic spp,
- 55,375 records of 545 terrestrial spp.

Since about 1850 there have always been Dutch heteropterists but collecting effort has varied greatly with both time and geography. It is, for instance, easy to see from distribution maps the home and holiday resorts of heteropterists! The 'appendage' in the SE corner of the map of The Netherlands is an area with a more continental climate and it is often here that new species first appear.

Table 1 Netherlands species totals

Date	Spp known	Date	Spp known
1853	119 species	1900	410 species
1862	200 species	1951	488 species
1879	283 species	1989	588 species

Changes in the species composition since 1960 have been analysed and show that the number of species recorded since 1960 is:

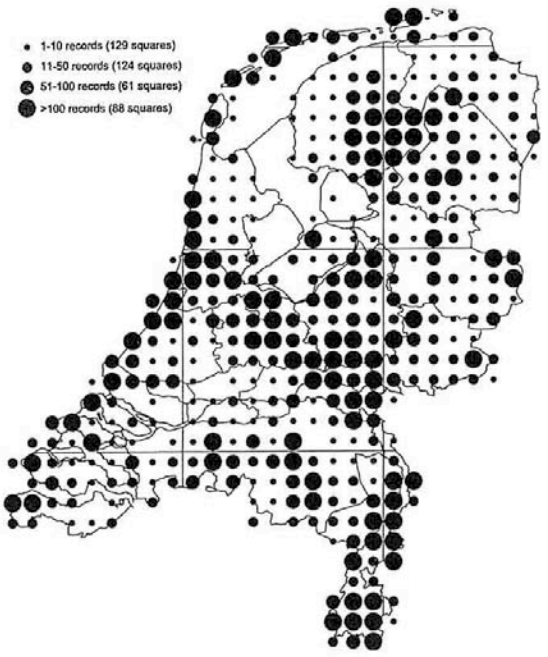
- 571spp (93.6% of total) recorded.
- 510spp (83.6% of total) are regular & 'resident'.

The period 1980-2002 has been one of considerable change, involving 61 species. New arrivals considerably outnumber losses:

- 27 new arrivals,
- 27 rediscovered after long absence (i.e. no records during 1960-1980) ,
- 7 not recorded in this period.

The 27 arrivals during 1980-2002 are listed in Table 3, with year of publication of the first report.

Turnover of species is a natural process but it is also clear that Man has contributed greatly to the changes in the Dutch heteropteran fauna through habitat changes, international trade and global warming. Table 3 shows that although at least four new arrivals have resulted from importation in plant material, the majority appear to have benefitted from global warming.



Map 1 Distribution of terrestrial records

Discussion

The vast majority of recent changes have been new arrivals or range increases, especially since 1990 (Tables 2 & 3). A similar pattern of change was observed in British Heteroptera (Kirby et al., 2001) and involves a fair number of the same species:

Stephanitis takeyai	*Deraeocoris flavilinea*
Dichrooscytus gustavi	*Emblethis denticollis*
Liorhyssus hyalinus	*Metopoplax ditoinoides*
Nysius graminicola	*Orsillus depressus*
Stictopleurus abutilon	*S.punctatonervosus*

Twenty-seven pre-1960 species were 'rediscovered' post-1980, after a long gap, but 39 pre-1960 species have not been recorded in recent years (Table 4). The large number 'rediscovered' shows how careful one must be with terms like 'extinct' or 'new arrival'. In a group like Heteroptera, with few active recorders, species may be overlooked and thus appear 'rare' or 'obscure', especially if their habitat or foodplants are poorly known. Good examples of this in The Netherlands are *Acetropis gimmerthalii* and *Conostethus roseus*. The former was collected only once, pre-1878, and not again until rediscovered in 1989. It became clear that it occurs early in the season, exclusively on *Anthoxanthum odoratum.* Since then it has been found in many localities. Similarly, *Conostethus roseus* was collected only twice, both pre-1882, and not again until rediscovery in 1981 on *Corynephorus canescens* on dunes and other sandy habitats, where it is not uncommon early in the season.

Acknowledgements

This article is based on a longer paper by Dr Aukema: "Recent changes in the Dutch Heteroptera fauna (Insecta: Hemiptera)." *Proc. 13th Int. Coll EIS, September 2001, pp.39-52, (2003).* Copies of the original (in English) are available from the author.

Table 2 : Twenty-one species added 1990-2002.

[+ = overlooked previously; { } = unpublished. Species in bold recently reached Britain.]

Species	Year	Species	Year
Brachynotocoris puncticornis	1990	***Emblethis denticollis***	1997
Megalonotus emarginatus+	1990	*Rhyparochromus vulgaris+*	1997
Dichrooscytus gustavi	1990	*Closterotomus frivialis*	1999
Psallus punctulatus	1990	***Micronecta griseola***	2000
Phoenicocoris modestus	1990	*Copium clavicorne+*	2001
Coriomeris scabricornis	1992	*Horvathiolus superbus*	(2000)
Nysius graminicola	1992	*Stagonomus pusillus*	(2000)
Rhopalus tigrinus	1993	*Rhaphigaster nebulosa*	(2002)
Eurydema ornata	1993	*Holcocranum saturejae*	(2002)
Cymatia rogenhoferi	1995	*Tritomegas sexmaculatus*	(2002)
Stephanitis takeyai	1996	**Total number of species (2002):**	**610**

Table 3 : Twenty-seven species added 1980-2002.

A: natural dispersal 0: overlooked 1: imported accidentally
N: N provinces (Friesland, Groningen, Drenthe)
W:W provinces (Noord-Holland, Zuid-Holland, Zeeland) R: 'continental' provinces

Species	mode	yr	N	W	R
Corixidae (2):					
Cymatia rogenhoferi	A	>1991	-	-	3
Micronecta griseola	A	>1999	3	-	4
Tingidae (1):					
Stephanitis takeyai	T	>1994	1	5	3
Miridae (11):					
Brachyarthrum limitatum	A	>1980	-	-	7
Brachynotocoris puncticornis	A	>1989	-	1	7
Closterotomus trivialis	T	>1998	-	1	-
Conostethus venustus	A	>1980	1	13	22
Derae0corisflavilinea	?	>1985	2	7	15
Dichrooscytus gustavi	T	>1990	-	1	4
Phoenicocoris modestus	0	>1990	-	-	3
Psallus assimilis	0	>1985	-	-	3
Psallus pseudoplatani	0	>1985	2	4	6
Psallus punctulatus	A	>1990	-	-	2
Reuteria marqueti	A	>1987	-	1	5
Aradidae (1):					
Aradus signaticornis	A	>1985	-	-	2

Species	mode	yr	N	W	R
Lygaeidae (6):					
Emblethis denticollis	A	>1992	-	4	3
Holcocranum saturejae	?	2002	-	-	1
Horvathiolus superbus	A	2000	-	-	1
Kleidocerys privignus	0	>1982	-	3	16
Nysius graminicola	A	>1990	-	1	-
Orsillus depressus	T	>1986	1	3	6
Coreidae (1):					
Coriomeris scabricornis	A	>1987	-	-	7
Rhopalidae (1):					
Rhopalus tigrinus	A	>1992	5	2	10
Cydnidae (1):					
Tritomegas sexmaculatus	A	2002	-	1	-
Pentatomidae (3):					
Eurydema ornata	A	>1992	-	1	1
Rhaphigaster nebulosa	A	>1997	-	-	1
Stagonomus pusillus	A	>2000	-	-	3

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Table 4 : Thirty-nine species not recorded 1960-2002.

(Year of most recent record, & number of 10-km squares(n); species in bold are also known from Britain.)

Species	yr	n
SALDIDAE (2):		
Chartoscirta elegantula	1958	3
Salda morio	1918	2
TINGIDAE (4):		
Acalypta musci	<1943	
Copium clavicorne	1913	1
Galeatus maculatus	<1884	1
Physatocheila costata	1951	3
MIRIDAE (9):		
Brachycoleus pilicornis	1953	1
Capsodes gothicus	1911	1
Closterotomus biclavatus	1948	1
Dicyphus constrictus	1910	1
Globiceps sphaegformis	1924	2
Hadrodemus m-flavum	1949	6
Halticus saltator	1948	5
Pinalitus atomarius	1953	1
Polymerus holosericeus	1955	6
ANTHOCORIDAE (1):		
Dysepicritus rufescens	1937	
CIMICIDAE (2):		
Cimex columbarius	1938	5
Cimex dissimilis	1940	5
REDUVIIDAE (2):		
Phymata crassipes	1890	1
Pygolampis bidentata	1958	6

Species	yr	n
ARADIDAE (1):		
Aradus corticalis	1910	2
LYGAEIDAE (10):		
Drymus pilicornis	1942	2
Emblethis verbasci	1944	2
Geocoris ater	<1878	1
Geocoris megacephalus	1902	3
Lasiosomus enervis	1956	3
Megalonotus emarginatus	1951	4
Lygaeus equestris	1935	2
Raglius alboacuminatus	1951	2
Spilostethus saxatilis	<1884	1
Tropidophiebia costalis	1943	2
STENOCEPHALIDAE (1):		
Dicranocephalus agilis	1955	4
COREIDAE (2):		
Arenocoris waltlii	1892	3
Gonocerus juniperi	1951	7
CYDNIDAE (1):		
Cydnus aterrimus	1951	1
SCUTELLERIDAE (2):		
Eurygaster austriaca	1935	9
Phimodera humeralis	1941	5
PENTATOMIDAE (2):		
Eurydema ventralis	1893	1
Palomena viridissima	1952	26

Above
Metopoplax ditomoides

Right
Stictopleurus punctatonervosus

photos kindly provided by
Ekkehard Wachmann, Berlin.

Records of uncommon Heteroptera from southern England, 2001-2003

Jonty Denton

This note summarises records of scarce Hemiptera-Heteroptera from southern England over the three year period 2001-2003. In particular, it includes several records extending the range of *Gonocerus acuteangulatus* (Goeze) (Coreidae), which continues to spread rapidly from its Surrey stronghold.

Records are grouped by vice-county; sites, and visit dates, are listed with a site code under the vice-county heading, and referred to by the site-code within species accounts.

SOUTH HAMPSHIRE (vice-county 11)

11SC ..... Sinah Common, SZ6899, 8 June 2002
11B..... Burridge, SU5210, 20 September 2003
11CB ..... Crockford Bridge, SZ3599, August 2003
11RH ..... Round Hill, SU3301, 30 July 2003

HEBRIDAE

Hebrus pusillus (Fallen) **11CB** - in huge numbers in suction samples from the site, and appears to be part of a distinctive assemblage of rare invertebrates including the snail *Lymnaea glabra* (Müller), (Mollusca: Lymnaeidae), and the water beetle *Haliplus variegatus* Sturm (Col: Haliplidae), which thrive in the locally richer conditions associated with old marl pit sites across the New Forest.

MIRIDAE

Strongylocoris luridus (Fallen) **11SC** - adults and large and small nymphs were numerous on sheep's-bit *Jasione.*

Capsodes sulcatus (Fieber) **11SC** - swept from vegetated shingle, and two beaten from tamarisk *Tamarix gallica.*

LYGAEIDAE

Lamproplax picea (Flor) **11CB** - at shaded margins of marl pit ponds on heathland.

Megalonotus praetextatus (Herrich-Schaeffer) **11SC**: on stable shingle.

Pachybrachius luridus (Hahn) **11RH** - over 20 adults active on *Sphagnum* dominated mire.

RHOPALIDAE

Stictopleurus punctatonervosus (Goeze) **11B** - in abandoned paddocks dominated by Fleabane.

NORTH HAMPSHIRE (vice-county 12)

12BC ..... Basingstoke Canal, SU8452, , 5 June 2001
(W of Eelmoor Flas**h)**
12MSH ... Micheldever Spoil Heaps, SU5143, May-July 2002
12YC ..... Yateley Cmn, SU8159, May-June 2001
(including **Blackbushe Airfield**)
12HC ..... Hook Common, SU7253
12WBE... Winchester: **Bar End,** SU4828,12 September 2003
12AWH... Alton: Windmill Hill (SU7238), 5 July 2003

CORIXIDAE

Micronecta minutissima (L.) **12BC -** abundant in 'shoals' in open water in margins of canal, new for Hampshire.

TINGIDAE

Catoplatus fabricii (Stal) **12YC** - abundant under Ox-eye daisy *Leucanthemum vulgare.*

Tingis reticulata Herrich-Schaeffer **12MSH -** certainly much rarer than its host plant. Especially abundant on bugle growing along base of heaps in the sheltered area along a woodland edge, only detected by suction sampling!

MIRIDAE

Miridius quadrivirgatus (Costa) **12AWH** - two at MV light trap in my former garden may be the first for VC12.

Systellonotus triguttatus (L.) **12YC** - frequent in suction samples from margins of old runways where *Lasius niger* sensu stricto (Hym: Formicidae) were active.

LYGAEIDAE

Megalonotus antennatus (Schilling) **12MSH -** adults on the tops of the chalk heaps in very exposed open conditions, May.

RHOPALIDAE

Rhopalus maculatus (Fieber) **12HC -** two adults on 3 June 2002, in area dominated by *Molinia,* where tormentil *Potentilla erecta* was the only likely host plant.

COREIDAE

Gonocerus acuteangulatus (Goeze) **12HC -** nymphs and adults on hawthorn July-September 2003.
12WBE - on hawthorn.

WEST SUSSEX (vice-county 13)

13BV .....Bolnore Village, TQ3222, 29 June 2002
13CN .....Church Norton, SZ8795, August 2003
13BH .....Bournehill, nr Horsham, TQ1728, 4 August 2003

MIRIDAE

Tuponia brevirostris Reuter

T.mixticolor (A. Costa) **13CN** - these two species of *Tuponia* together on Tamarisk.

STENOCEPHALIDAE

Dicranocephalus medius (Muls. & Rey) **13BV** - adults on Wood Spurge *Euphorbia amygdaloides,* 29 June 2002.

COREIDAE

Gonocerus acuteangulatus (Goeze) **13BH** - nymphs and adults on hawthorn, and on old plum trees in an orchard.

SURREY (vice-county 17)

17HP .....Hatchlands Park, TQ0652, 16 July 2001
17LL..... Lammas Land, Godalming, SU9744, 17 July 2001
17PR .....Pirbright Ranges, SU9259, 24 July 2003

MIRIDAE
Deraeocoris olivaceus (Fabricius) **17HP** - three adults on large hawthorns *Crataegus monogyna* in old hedge.
Miridius quadrivirgatus (Costa) **17LL** - one male swept off tall grass/rushes in damp meadow. Increasingly frequent in Surrey (Roger Hawkins *pers. comm*.).
Adelphocoris ticinensis (Meyer-Dür) **17LL** – as *Miridius*.
Phytocoris insignis Reuter, **17PR** - two adults on a small patch of *Calluna* in an extensive area recently burnt area.

MIDDLESEX (vice-county 21)

21GL ..... Glebelands LNR, TQ2691, 18 May 2002

VELIIDAE
Microvelia pygmaea (Dufour) **21GL** - a winged male was taken with many *M.reticulata* (Burmeister) at weedy margins of pond.

BERKSHIRE (vice-county 22)

22RK ..... R.Kennet, Southcote SU6871 May-June 2003
22HN ..... Heron's Nest, SU6669, 6 August 2003
22SC ..... Snelsmore Common, SU4671, 12 June 2003
22Sul..... Sulhamstead, SU6469, July-October 2003
22Sou .....Southcote, SU6871, July-October 2003
22P.....Pingewood, SU7071, July-October 2003

CORIXIDAE
Micronecta griseola **22RK** - abundant.
MIRIDAE
Miridius quadrivirgatus (Costa) **22HN** - one at MV light,
REDUVIIDAE
Empicoris baerunsprungi (Dohrn) **22SC** - one on broken end of oak bough.
COREIDAE
Gonocerus acuteangulatus (Goeze), widespread on hawthorn *Crataegus*, and buckthorn *Rhamnus*, in hedgerows (**22Sul, 22Sou, 22P)**.

Acknowledgements
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Thanks also to Dr.Bernard Nau for confirming my identification of *M.minutissima.*

Dr J. Denton,
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From the Regions .....Hants & Wilts

I have records of *Deraeocoris flavilinea* from South Hampshire and North Wilthshire, viz. a male near Tilshead, Wiltshire, SU0348 on 14.7.2003, and a female from Swanwich Nature Reserve, Hampshire, SU5010 on 3.7.2002 (captor: David Appleton). It may also be of interest that *Nysius graminicola* turned up in some numbers in the Hamble Estuary SU4806 on 6.8.2003, swept from sparse vegetation over shingle at sunset, along with *Nysius thymi.* All the above were kindly identified or confirmed by Bernard

Richard Dickson

From the Regions ..... Yorkshire

Notonecta viridis was found quite high up on the North York Moors as well as being north of the previous Yorkshire locations. In SE Yorkshire, ponds either side of the Market Weighton Canal (Broomfleet/Oxmardyke) produced a very good list including *Gerris argentatus*, *Ranatra linearis* and *Cymatia coleoptrata*, all edging their recorded range northwards. *C. coleoptrata* was also found in an old mill pond near Malton about 40 km further north. It will be interesting to see if all these water bugs which reach their northern limit in Yorkshire will continue to expand their range.

Martin Hammond

From the Regions ....Kent & E. Sussex

We recently made some interesting observations on a visit to Brede High Wood (E. Sussex) and Ham Street Wood NNR (W. Kent).

In Ham Street on 23rd April we were delighted to find the barkbug *Aneurus laevis* in quantity in log piles, there were both adults and nymphs, all ages. This is a rarity in our home county!

In Brede (TQ8020) on 24th April beside a broad ride we saw, apparently, a mass emergence from hibernation of *Dolycoris baccarum*. In the warm sun 100s were crawling on ground litter and low plants, some taking to flight and some pairing!

Also in Brede (TQ7920) a stream 2-3m wide flows through a clearing to a reservoir 200m away through woodland. *Gerris lacustris* was common and there were some corixids, but we were surprised to see two large skaters. However with only a tea-strainer available they proved impossible to catch. We thought they would be *Aquarius najas* but had doubts as they were macropters. So next day we returned better equipped and found they were actually *A. paludum.* Previously we have usually seen this on large open water bodies.

Rides in both woods had puddles in wheel ruts, typically 1-10 sq.m in area, and *G. lacustris* was common on these, but *G. gibbifer* and, surprisingly, *G. argentatus* were frequently found too. Two weeks before we had found the latter in ruts in an open field in Beds. but we normally associate this small bug with sheltered pond-margins.

SEB & BSN

Gadget Corner ..... The Bug Mailer

I often find I don't have a suitable combination of container and envelope for committing valuable bugs to the care of The Post Office, unless returning a batch to its sender in which case one simply uses the original. Anyway, having seen quite a range of different concepts in use I had been thinking about how one might standardise when I received a promising example from Richard Dickson, of which more later. My requirements are:

1. crush-proof – to resist heavy-duty franking machinery;
2. compact – 45x200 mm, maximum, to fit my fairly standard letterbox opening & the opening in local pillar boxes;
3. lightweight – 60 gm maximum, to qualify for the basic letter-post weight group & save a trip to the post office for bespoke stamps;
4. readily available when needed;
5. not so desirable that it never returns.

Popular container concepts I recall are:

- the polythene 'can' in which film cassettes are packaged; these fail on no.2, as they are too fat when wrapped in layers of bubble-pack or foam;
- the hard-plastic boxes in which photographic colour-slides are packaged, these fail on no.1, being marginal on strength;
- glass tubes - not really recommended, with or without alcohol, they need a lot of protection and then fail on no.2;
- cardboard boxes of various sizes, usually fail on no.2, and difficult to find in a suitable size on demand,

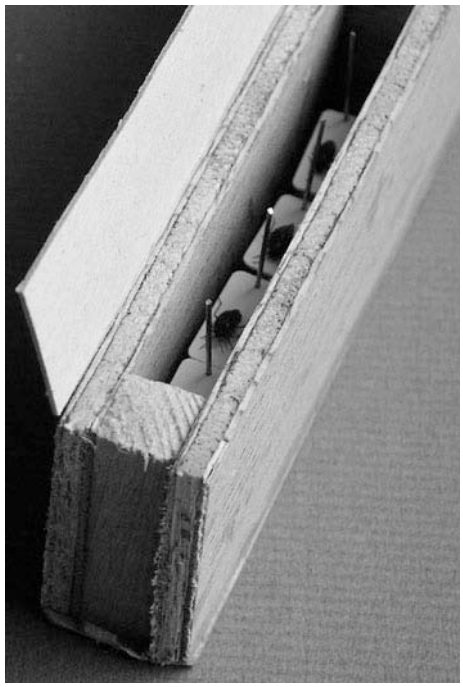
One of the best, so far, is the aforementioned item from Richard Dickson. It is a purpose-built prototype easily meeting criteria nos 1, 2 & 3 (at least); it is illustrated in the photograph. Its size is a tiny 30x120x13 mm and it weighs in at just 16.5 gm complete with eight saldids mounted on pinned card-mounts! I think you could safely stand on this container but haven't tried. The sides are very thin plywood, the base and lid are card, the base lined with foam for pinnning to. The card lid is folded to form a hinge, held closed by rubber bands. A cross-member (out of view) gives added resistance to lateral compressive loads. No anti-rotation pins are necessary. I must remove half a mark because it won't take my 38 mm pins – but then I won't be tempted to retain it, so a plus point for that, perhaps. It certainly deserves a BSI kitemark.

One of the least desirable that I recall was a sturdy cardboard box, about a one foot cube, filled with polystyrene 'crisps' in which nestled another cardboard box, about 100x75x75, containing one small card-mounted mirid; the whole weighing half a pound. 'Nil points'.

Primary containers usually need some protective packaging, and an envelope. Traditional padded envelopes exceed the 60 gm postal criterion without any contents, but there are now lightweight envelopes which have a bubble-pack lining and weigh-in at only 12 gm. These provide shock-absorbing capability, though a bit minimal.

This then is the state of the art at the time of writing, I look forward to ideas from readers of stunning simplicity (the ideas) and unsurpassable functionality.

Bernard Nau



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Recent & forthcoming events

The launch of **The National Pond Monitoring Network,** created through **Ponds in Partnership** is on 14 May 2004 in London. For more details and for access to The National Pond Database from May visit:

www.pondstrust.org.uk

Buglife, The Invertebrate Conservation Trust was launched on 22 April 2004 at the London Wetland Centre. News of the launch, details of the aims of the trust and interesting facts and photos can be found on the website:

www.buglife.org.uk

(In a recent survey children chose their top 10 bugs – not one of them was a Het!!)

A checklist of British water bugs (Hemiptera-Heteroptera)..... Sheila Brooke

In 2003 a national Species Dictionary project was launched, the object of this is to allow users to search for particular species under various names. This can be accessed on the internet and is managed by the Natural History Museum on behalf of the National Biodiversity Network (NBN) Trust. The NBN website, The Gateway, provides access to both biodiversity information and the Species Dictionary. The latter is also to be used to update *Recorder 2002*, the recording package which most of you will know about. In *Recorder*, the current checklist for water bugs is out of date and I, without considering the intricacies of taxonomy, volunteered to produce a current list, which will be available to R2002 users in the near future. Much was learned in the process!

The checklist order follows that of the Palaearctic Catalogue edited by Aukema & Rieger (1995). For simplicity subfamilies, tribes and subgenera are omitted although the order of the species is based on these. Thus the *Sigara* species are arranged in the order of their subgenera rather than alphabetically, allowing related species to remain together. Subspecies names are only added if more than one is present in the British Isles, and a note is added if the British subspecies is not the type.

Authorities are quoted for the species only and in accordance with the recent thinking of the International Institute of Entomology the original genus, if different from the current genus, is added after the authority, separated by a dash, in the parentheses, thus:

Ranatra linearis (Linnaeus, 1758 – *Nepa*).

This list includes changes in the nomenclature since Savage (1989), most already having been detailed in Provisional Atlas (Huxley 2003). The synonyms included are those used in the major British works and so considered to be the most useful in literature searches. Additional synonyms, many of them less commonly used, can be found in Huxley (2003) and Aukema & Reiger (1995). The format of the synonyms is similar to that of the species. If the genus is not the original given by the author, the original genus follows the author's name, separated by a dash, in the parentheses, thus:

Micronecta meridionalis (Costa, 1862 – Sigara)

Misidentifications in British faunal works are cited as synonyms in the form:

(=*striata* non Linnaeus, 1758)

Notes are added to explain misspellings and misidentifications, and to give other useful information.

ACKNOWLEDGEMENTS

The author wishes to thank Mr W. R. Dolling for his invaluable advice and assistance in the preparation of this checklist and Dr B.S. Nau for continued help and encouragement throughout its evolution

Family	Species	Note	Syonym
Nepidae			
	Nepa cinerea Linnaeus, 1758		
	Ranatra linearis (Linnaeus, 1758 - *Nepa*)		
Corixidae			
	Micronecta scholtzi (Fieber, 1860 - *Sigara*)	1	= *meridionalis* (Costa, 1862 - *Sigara*)
	Micronecta griseola Horváth, 1899		
	Micronecta minutissima (Linnaeus, 1758 - *Notonecta*)		
	Micronecta poweri (Douglas & Scott, 1869 - *Sigara*)	2	(=*minutissima* non Linnaeus, 1758)
	Cymatia bonsdorffii (C.R.Sahlberg, 1819 - *Corixa*)	1	
	Cymatia coleoptrata (Fabricius, 1777 - *Sigara*)		= *coleoptrata insularis* Walton, 1942
	Glaencorisa propinqua propinqua (Fieber, 1860 - *Corisa*)		
	Glaencorisa propinqua cavifrons (Thomson, 1869 - *Corisa*)		= *alpestris* Douglas & Scott, 1870
	Arctocorisa carinata (C.R. Sahlberg, 1819 - *Corixa*)		
	Arctocorisa germari (Fieber, 1848 - *Corisa*)		
	Callicorixa praeusta (Fieber, 1848 - *Corisa*)		= *boldi* Douglas & Scott, 1870
			= *sodalis* Douglas & Scott, 1870
	Callicorixa wollastoni (Douglas & Scott, 1865 - *Corixa*)		= *cognata* Douglas & Scott, 1870
			= *caledonica* Kirkaldy, 1897
	Corixa affinis Leach, 1817	3	
	Corixa dentipes (Thomson, 1869 - *Corisa*)		
	Corixa iberica Jansson, 1981		
	Corixa panzeri (Fieber, 1848 - *Corisa*)	3	
	Corixa punctata (Illiger, 1807 - *Sigara*)	4	= *geoffroyi* Leach, 1817
	Hesperocorixa castanea (Thomson, 1869 - *Corisa*)		
	Hesperocorixa linnaei (Fieber, 1848 - *Corisa*)	1	
	Hesperocorixa moesta (Fieber, 1848 - *Corisa*)		
	Hesperocorixa sahlbergi (Fieber, 1848 - *Corisa*)		

Paracorixa concinna (Fieber, 1848 - *Corisa*)	5	
Sigara selecta (Fieber, 1848 - *Corisa*)		= *stali* Douglas & Scott, 1865
Sigara stagnalis (Leach, 1817 - *Corixa*)		= *lugubris* (Fieber, 1848 - *Corisa*)
Sigara nigrolineata (Fieber, 1848 - *Corisa*)		= *fabricii* (Fieber, 1851 - *Corisa*)
		= *saundersi* Kirkaldy, 1899
Sigara limitata (Fieber, 1848 - *Corisa*)		
Sigara semistriata (Fieber, 1848 - *Corisa*)		
Sigara venusta (Douglas & Scott, 1869 - *Corixa*)		
Sigara dorsalis (Leach, 1817 - *Corixa*)	6	(=*striata* non Linnaeus, 1758)
		= *lacustris* Macan, 1954
Sigara striata (Linnaeus, 1758 - *Notonecta*)		
Sigara distincta (Fieber, 1848 - *Corisa*)		= *douglasi* Fieber in Douglas & Scott, 1865
Sigara falleni (Fieber, 1848 - Corisa)	1	
Sigara fallenoidea (Hungerford, 1926 - *Arctocorisa*)	7	= *pearcei* Walton, 1936
Sigara fossarum (Leach, 1817 - *Corixa*)		
Sigara scotti (Douglas & Scott, 1868 - *Corixa*)		= *prominula* Thomson, 1869
Sigara lateralis (Leach, 1817 - *Corixa*)	8	= *hieroglyphica* (Dufour, 1833 - *Corisa*)
Naucoridae	9	
Ilyocoris cimicoides (Linnaeus, 1758 - *Nepa*)		
Aphelocheiridae		
Aphelocheirus aestivalis (Fabricius, 1794 - *Naucoris*)		= *montandoni* Horváth, 1899
Notonectidae	10, 11	
Notonecta glauca Linnaeus, 1758		
Notonecta maculata Fabricius, 1794		
Notonecta obliqua Thunberg, 1787		= *furcata* Fabricius, 1794
Notonecta viridis Delcourt, 1909	12	= *halophila* Edwards, 1918
		= m*armorea viridis* Delcourt: Esaki, 1928
Pleidae		
Plea minutissima Leach, 1817	13	= *leachi* McGregor & Kirkaldy, 1899
		(= *atomaria* non Pallas, 1771)
Mesoveliidae		
Mesovelia furcata Mulsant & Rey, 1852		
Hebridae		
Hebrus pusillus (Fallén, 1807 - *Lygaeus*)		
Hebrus ruficeps Thomson, 1871		
Hydrometridae		
Hydrometra gracilenta Horváth, 1899		
Hydrometra stagnorum (Linnaeus, 1758 - *Cimex*)		
Veliidae		
Microvelia buenoi Drake, 1920	14	= *umbricola* Wroblewski, 1938
Microvelia pygmaea (Dufour, 1833 - *Velia*)		
Microvelia reticulata (Burmeister, 1835 - *Hydroessa*)	15	(= *pygmaea* non Dufour, 1833)
Velia caprai Tamanini, 1947	16	(= *currens* non Fabricius, 1794)
Velia saulii Tamanini, 1947	16	(= *currens* non Fabricius, 1794)
Gerridae		
Aquarius najas (De Geer, 1773 - *Cimex*)	17	
Aquarius paludum (Fabricius, 1794 - *Gerris*)		
Gerris argentatus Schummel, 1832		
Gerris costae Wagner & Zimmerman, 1955	1, 18	
Gerris gibbifer Schummel, 1832		
Gerris lacustris (Linnaeus, 1758 - *Cimex*)		
Gerris odontogaster (Zetterstedt, 1828 - *Hydrometra*)		
Gerris thoracicus Schummel, 1832		
Gerris lateralis Schummel, 1832	19	(= *lateralis asper* non Fieber, 1860)
Limnoporus rufoscutellatus (Latreille, 1807 - *Gerris*)	20	

Notes

1. There have been several misspellings involving the species name endings, in th following the first version mentioned is the correct spelling:
Micronecta scholtzi – M. scholtzii
Cymatia bonsdorffii – C. bonsdorffi
Hesperocorxca linnaei – H. linnei
Sigara falleni – S. fallenii
Gerris costae – G. costai

2. *Micronecta minutissima* and *M. poweri* have been confused in the past with one another and perhaps with *M. griseola* unless this is a recent immigrant. Walton (1938) resolves this problem. *M. griseola* was identified in Britain by Brooke & Nau (2003).

3. Saunders (1892) confused *Corixa affinis* and *C. panzeri*, and called them both *C. atomaria* sensu (Fieber, 1848). This confusion is resolved in Butler (1923).

4. Records of *Corixa punctata,* and its synonym *geoffroyi,* in NW Scotland may refer to *C. iberica* described by Jansson, from Europe, in 1981, and recognised from N & W British Isles in 1986.

5. *Paracorixa*, a previous subgenus of *Sigara,* has been elevated to genus so *Sigara concinna* is now known as *Paracorixa concinna.*

6. Prior to 1955 *Sigara dorsalis* in Britain was known as *S. striata,* and for about a year afterwards as *S. lacustris* (see Savage, 1989, p9).

7. *Sigara fallenoidea* is resident in Ireland and has not been recorded in Britain.

8. Sigara (Subsigara) iactans Jansson, 1983 has been spreading through Belgium and The Netherlands and might reach Britain soon.

9. *Naucoris maculatus* Fabricius, 1789 has been found in the Channel Islands but its presence now is doubtful.

10. *Notonecta meridionalis* Poisson, 1926 has been found in the Channel Islands but its presence now is doubtful. It was referred to by LeQuesne (1984) as *Notonecta glauca rufescens* Poisson, and as *N. fulva* Fuente.

11. Until the late 1890s it was believed that we had only a single, variable species of *Notonecta* which was called *glauca*, therefore early records of this species may refer to any of our four species. *N. lutea* Müller 1776, present in Belgium, Denmark and The Netherlands could become our fifth species.

12. The original description of *Notonecta marmorea* really applies to *N. viridis.* Esaki restored the name *N. marmorea* with two subspecies *viridis* and *marmorea;* the name *N. m. viridis* was therefore used for our species in recent years. This name has now been rejected and our insect is *N. viridis,* an undivided species.

13. *Plea minutissima* was misidentified in the past as *P. atomaria* (non Pallas, 1771)

14. Savage (1989) suggested that the European populations of *Microvelia buenoi* Drake, 1920 be treated as subspecies *umbricola* Wróblewski, 1938 but Jansson in the Palaearctic Catalogue says 'needs verification based upon material covering a larger part of the Palaearctic region'.

15. *Microvelia reticulata* was misidentified as *M. pygmaea* in Douglas & Scott (1865) and Saunders (1892). There was thought to be this single British species until Walton (1939) recognised the true *M. pygmaea* (Dufour, 1833) and *M. umbricola* (now *M. buenoi*) which both may have been here previously.

16. Before Tamanini's 1947 revision of *Velia* both British species were recorded as *V. currens* Fabricius, a species that does not occur here. Brown (1951) explains the British situation.

17. Both species of *Aquarius* have been known as *Gerris* at times and in Douglas & Scott (1865) *Gerris* species are called *Hydrometra*.

18. Our *Gerris costae* is subspecies *Gerris costae poissoni* Wagner & Zimmerman, 1955.

19. *Gerris lateralis* was confused with *G. asper* (Fieber, 1860) which does not occur here. The Palaearctic Catalogue states –'The assignment by Southwood & Leston (1959) and Savage (1989) of *G. lateralis* from GB as subspecies *asper* is unjustified'.

20. *Limnoporus rufoscutellatus* is resident in Ireland but only a vagrant in Britain.

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Identification of plantbugs of the genus *Lygus* in Britain.....Bernard Nau

This group of five species probably presents the most difficult identification problem of any our Miridae. The species are very similar in general appearance and, within species, variable in size, coloration and markings; the genitalia too are singularly unhelpful. With practice the size, shape, coloration and markings can be used but too often they leave the identity in doubt.

In 1966 Woodroffe (*The Entomologist*, **99**, 201-206) reviewed the situation and produced a key to the British species that depends largely on the pubescence and puncturation of the corium; he gives small sketches to illustrate the differences.

In 1998, Schwartz & Foottit (*Memoirs on Entomology, International*, **10**, i-vi, 1-428) readdressed the problem. They applied much modern technology to the problem of distinguishing between all the species in this Holarctic genus and concluded that Woodroffe's characters are indeed about the most useful, and they further crystallise some aspects of the differences of these between species. Most usefully they give excellent scanning electron micrographs of the apical region of the corium, which greatly help in distinguishing between our species.

This identification issue has become a greater concern because *pratensis*, a southern species in Europe, seems to have multiplied and spread in SE England to the point where I, at least, have been encountering it on almost every field trip this summer.

In the west of England, Keith Alexander has been finding *wagneri*, a boreo-montane species, increasingly frequently in Gloucestershire woods in recent years.

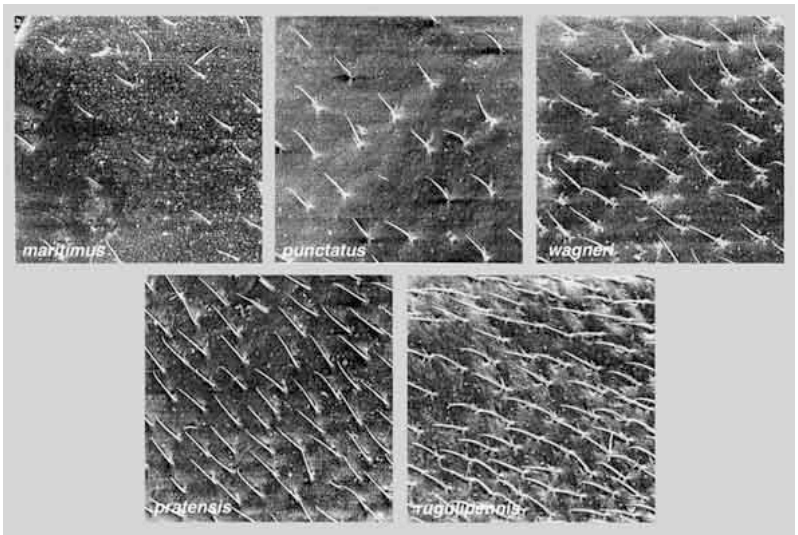
Over the last decade or so in Pamber Forest, between the preceding regions, I have several times taken what I had identified as *pratensis* using Woodroffe's key. However, recently I noticed a 1960 note (*Ent.mon.Mag.,* **96**, p4) reporting that Woodroffe had taken *Lygus* from Pamber Forest. He and Dr Southwood had identified these as *wagneri* but this was several years before Woodroffe reassessed the identification of British *Lygus*. My Pamber specimens too have the brown ground colour of *wagneri* although the scutellum markings (with one exception), and the pubescence, seem more like *pratensis*. Of course it may be that both species occur there!

To help in the identification of British *Lygus* spp, SEM images from Foottit & Schwartz, with some editing, are shown below arranged in order of increasingly dense pubescence. Woodroffe based his criteria on the amount of overlap between one hair and the next 'in line' (imagine a flotilla of ships in line astern). This is a statistical issue since the overlap varies from hair to hair and in practice is sometimes difficult to assess. I find it more helpful to take a 2-dimensional view, since the difference in spacing between hairs 'in-line' and transversely differs between species. In the photos it is evident that in both *pratensis* and *wagneri* the hairs just about overlap the next in line, on average. The transverse spacing, however, more clearly differs between the two species, to judge this it is helpful to imagine the arc traced by the tip of a hair swivelling about its root. In *wagneri* the transverse spacing is just about one hair length, on average, but in *pratensis* it is clearly under one hair length. In *rugulipennis* the lateral spacing is even less, at times scarcely half a hair-length.

The remaining two species, *maritimus* and *punctatus*, are more straightforward. The former has hairs inserted several lengths apart in each direction and in the latter species the insertions average about two hair lengths apart in each direction.

In males at least, two other characters may also be useful but need more validation. They are:

- In *wagneri*, just below the lateral edge of the pronotum there is a broad black band extending the length of the pronotum (view from the side). In *pratensis* the black band is commonly absent or is reduced to an irregular patch near the front.
- In *rugulipennis* the costal edge of the corium and cuneus is very finely but distinctly black throughout. In *pratensis* and *wagneri* it seems that this black is absent from some or all of the length of the cuneus.



Web Focus

www.amentsoc.org
Correction to **Amateur Entomological Society** website address given in previous issue as theaes.org . Apologies for that!

www.ordnancesurvey.co.uk/oswebsite/getamap
Ever wanted a Grid Ref but haven't got the map? Try this very useful **Ordnance Survey** website, it will display the map area you need!.

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A couple of forthcoming publications.

An article on shieldbugs in **BBC Wildlife** magazine by **Richard Jones**.

A glossy foldout guide to shieldbugs, by **Bernard Nau**, in the **Field Studies Council** series of field-guides.

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From the Archives

The following is an edited version of a paper in *Ent. mon. Mag.* **9**, 1898 by O. W. Kirkaldy, F.E.S.
[Eat your heart out TV cook Jamie Oliver!]

An Economic use for Waterbugs.

The use of certain waterbugs, in the egg stage and in the perfect state, as food both for man and for birds, &c., is no new thing. As early as 1625 Thomas Gage mentions the sale of cakes, made of a 'kind of froth' from the Mexican lakes. In 1832 Thomas Say states that the perfect insects are made use of as food in Mexico City.

Prior to the importation into this country both of imagines and ova in large quantities for the food of insectivorous birds, game, fish, &c., I have examined 300 specimens which belong to two species only viz., *Notonecta americana*, Fabr., and *Corixa mercenaria*, Say, the latter being very largely in the majority and form the bulk of the 'food'.

The species of both genera, although water inhabitants, usually leave the element during the night, either for 'love meetings', or merely for change of residence. They are captured with nets, dried, and sold as 'bird food' under the name of 'moschitos', although it is stated that the Mexicans eat them dried and dressed with saltpetre!

The minute ova, however, are employed entirely as a fillip to human appetites, and therefore merit a closer consideration. The ova of *N. americana* appear to be rather loosely fastened by a 'gummy' substance to the external surface of water plants, &c. The smaller ova of *C. mercenaria* are connected by an extensile, translucent, colourless 'stalk ' to a large disc which is affixed to a leaf or plant-stem.

At the proper season bundles of rushes are placed in the lake shallows, and upon these the ova—named by the Mexicans 'Axayacatl' or 'waterface' - are deposited, gathered by the natives and made with meal into cakes; these are eaten 'au naturel' or with green chillies! They are also cooked without further preparation, having then the appearance of fish roe, when they are called 'Ahuauhtli' or 'waterwheat '; they are said to have a delicate flavour and not to be disdained at fashionable tables, Virlet d'Aoust comparing it to Caviare.

I sampled these ova myself, but I cannot endorse the above tribute, as (owing doubtless to their being somewhat stale) they had a flavour (faint, but decided) of sulphuretted hydrogen and decayed animal substance! The perfect insects, also, are unsuitable in their imported condition for human food, having a noticeable " buggy " flavour; for the purposes for which they are imported, however, I do not doubt that they would be satisfactory.

Some idea of the enormous swarms of *C. mercenaria* may be gathered from the fact that it is being imported by the ton! and I have calculated, somewhat roughly, that each ton will contain little short of 250 millions of individuals!! As to the ova, they are beyond computation.

Please send your contributions for the next issue by 30th Sept. 2004