



OCULARIUM

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Newsletter of the Opiliones Recording Scheme

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EDITORIAL

The northward spread in recent years of some invertebrate species is often talked of as an indicator of global warming; in fact it is now a hot topic! Among British harvestmen, we have at least a couple of candidates and this issue includes the latest reports. *Dicranopalpus ramosus* and *Odiellus spinosus* (both originally from Southern Europe) have been moving northwards. We now hear that the two species have reached northern England and are likely to cross the border. Tremendous walkers these harvestmen!

The main report in this issue, however, presents the results of material identified by Dr Usher from *Part One* of an extensive biodiversity survey by the Forestry Commission. *Part One* involves upland forest plantations in northern England and Scotland, and *Part Two* represents lowland forests in England [we hope to present the results from *Part Two* in the next issue]. The harvestmen collected during the entire survey probably form the largest collection ever made in Britain. The data provided define a base-line for harvestmen communities in forest habitats and are of particular interest at a time when species are on the move. The results from *Part One* confirm that, so far, the forests represented remain the home exclusively of species considered as indigenous British. Thus, with great interest, we look forward (next issue) to seeing if the same story applies to the F.C. lowland forests of England or, indeed, if any other species have made an appearance there.

6000 FOREST HARVESTMEN

by Michael Usher

Actually 6,778 harvestmen in six upland coniferous forests fell into pitfall traps. The research was part (*Part One*) of the Forestry Commission's survey into the biodiversity of forest plantations. Four of the forests were of Sitka spruce and were located at: Kielder (10 km grid squares NY68 and 78), Glentress (NT24 and 33), Knapdale (NR89 and 99) and Clunes (NN18, 19 and 29), and two were of Scots pine: in Strathspey (NH80, 90 and 91) and Glen Affric (NH22 and 33). At each forest, four stands in a chronosequence (pre-thicket, mid-rotation, mature and post-mature) were selected for a series of pitfall traps, operated for ten two-week periods during two consecutive years.

In total 11 species were found, as shown in the Table below. The most abundant species were:

Mitopus morio (48% of those trapped), *Nemastoma bimaculatum* (19%), *Oligolophus tridens* (13%) and *Paroligolophus agrestis* (11%). The main differences between the pine and spruce forests were of *N. bimaculatum*, which comprised 30% of the catch in the spruce forests but only 12% in the pine forests, and *P. agrestis*, that formed only 4% of the spruce forest catch but 15% of the pine forest catch.

Apart from the two least common species, no species was restricted to either the pine or the spruce forests. In the pine forests, *O. tridens* was particularly frequent in the pre-thicket stage, although it occurred in all stages of the chronosequence. *P. agrestis* was more frequent in the mature stage, and both *N. bimaculatum* and *Rilaena triangularis* were more frequent in the post-mature forests. In the spruce forests some contradictory results were obtained! Although *O. tridens* was more frequent than might be expected in the pre-thicket stage, so also were *N. bimaculatum* and *R. triangularis*. *Lacinius ephippiatus*, *Mitopus morio* and *Lophopilio palpinalis* were similarly more frequent than might be expected in the mature stage.

Table 1. The species of harvestmen trapped in six forests in Scotland and northern England, with their numbers in pitfall traps over 20 weeks in each of two consecutive years. Traps for Knapdale and Clunes were operated in 1995 and 1996, traps for the other four forests in 1996 and 1997.

	G.A.	St.	Kn.	Cl.	Ki.	Gl.
<i>N. bimaculatum</i>	203	320	140	235	193	205
<i>M. chrysomelas</i>	3	7	2	1	4	39
<i>O. tridens</i>	406	263	22	73	84	56
<i>O. hanseni</i>	0	0	1	0	0	2
<i>P. agrestis</i>	352	281	3	22	37	26
<i>L. ephippiatus</i>	118	62	8	111	0	31
<i>M. morio</i>	619	1,452	352	236	70	537
<i>P. opilio</i>	1	0	0	0	0	0
<i>M. diadema</i>	0	1	9	4	0	0
<i>R. triangularis</i>	60	42	0	12	0	7
<i>L. palpinalis</i>	38	3	1	22	0	2
Totals (6,778)	1,800	2,431	538	716	388	905

G.A.=Glen Affric, St.=Strathspey, Kn.=Knapdale, Cl.=Clunes, Ki.=Kielder, Gl.=Glentress.

What do these results tell us about the harvestmen of upland, coniferous forest plantations? First, all of the plantations sampled had a diversity of harvestmen species averaging 6.3 species, but ranging from 3.0 species in the mid-rotation stage at Kielder to 9.0 species in the mid-rotation stage at Glentress. Second, there was no significant difference between the number of harvestmen species in any of the stages of the chronosequence. Third, there was a significant difference ($0.01 < P < 0.001$) between the forests, with Kielder (4.2 species per stage) and Knapdale (5.0 species per stage) being less species rich than the other four forests (7.2 species per stage). Finally, and probably because of the last point, Scots pine plantations appear to be slightly more species rich (7.0 species per stage) than Sitka spruce plantations (6.0 species per stage). The data also tend to indicate that harvestmen are more abundant (or more active, or both) in Scots pine forests than in Sitka spruce forests.

However, these results show that upland, coniferous plantations can be rich in harvestman species. The distribution maps in Hillyard & Sankey (1989) indicate that only 13 species could have been expected, on geographical grounds, in these forests. Eleven of these species were collected, but neither *Opilio saxatilis* nor *Leiobunum rotundum* were found. It is just possible that four other species might have been collected: these are *Paroligolophus meadii* (infrequently recorded in the north of England) and *Opilio parietinus*, *Leiobunum blackwalli* and *Nelima gothica* (all only recorded near the east coast of Scotland and northern England, but more widely in the south). Thus, to find 85% of all of the expected species, and 65% of the possible species, in these 24 forest plantations indicates their value as habitats for harvestmen.

Reference

Hillyard, P. D. & Sankey, J. H. P. (1989) *Harvestmen*. E. J. Brill, Leiden.

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HARVESTMEN DON'T FIND IT GRIM UP NORTH!

Jennifer Newton has reported the interesting find of *Odiellus spinosus*, collected in early October last year by Roy Merritt from his garden in Heysham, North Lancashire, (SD4216328). Jennifer ponders the possibility that *O. spinosus* is demonstrating a northwards spread similar to that of *Dicranopalpus* [looks like it! Ed.]. She adds that *Dicranopalpus* is now found more and more commonly in northern Lancashire and up the Cumbrian coast. The most northerly sighting to date of this species is an unconfirmed record at Edinburgh (*Ocularium* No. 3).

NEW PUBLICATIONS

Joel Hallan of Texas A&M University has published on the Internet a very useful taxonomic list of all the Opiliones of the World:
<http://entowww.tamu.edu/research/collection/hallan/OpilRpt1.txt>

Revista Ibérica de Aracnología has published a special monographic volume:

Annotated Catalogue of the Laniatores of the New World (Arachnida, Opiliones) by Dr Adriano B. Kury. *Rev. Ibér. Aracnol.*, (special volume), 337 pp., June, 2003. In English, with abstracts in Spanish.

This book reviews all the systematic literature dealing with the suborder Laniatores in the Americas up to 31st December 2002 (some 800 references). Nearly 2,400 species, belonging to 750 genera and 21 families, are listed for the New World. Synonymies, reinstatements, replacement names and emended spellings are proposed where necessary. The work includes a special section with a list of the proposed nomenclatural acts, which include, among many others of a lower rank, proposals for a new family and subfamily. There is a list of species recorded from each country and maritime territory.

This volume is free of charge for *Aracnol. Revta Ibér.* subscribers. Those who are not *Aracnol. Revta Ibér.* subscribers but are interested in purchasing the book can write to the address below. The price of the volume is 20 US dollars (18 euro, for Europe), postal charges included. Payment can be made by credit card (Visa or Mastercard). Contact:

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RECORD CARDS SUBMITTED

Many thanks to the following recorders for submitting records during the last two years: Sheila Wright, Jennifer Newton, A. E. Cooper and Ray Ruffell.

OTHER ITEMS

WEBSITE for the Opiliones Recording Scheme is to be found on the British Arachnological Society's internet pages: <http://www.BritishSpiders.org.uk>

The Opiliones Recording Scheme has an e-mail address attached to this domain:
ors@britishspiders.org.uk

WEBSITE for the National Biodiversity Network (associated with the Biological Records Centre) is to be found at: www.nbn.org.uk. The NBN has announced the launch in May of the operational version of its electronic Gateway which will present data from recording schemes. This has the following temporary internet address:

<http://212.219.37.112>

Ocularium No. 6 will be published in March 2005. Contributions received before then will be very welcome.