Reginald Innes Pocock FRS, FZS (1863-1947): Some Notes and Papers on British & Irish Myriapods

Anthony D. Barber

7 Greenfield Drive, Ivybridge, Devon, PL21 0UG

E-mail: abarber159@btinternet.com

Introduction

Reginald Innes Pocock was the fourth son of Rev. Nicholas Pocock and Edith, daughter of James Cowles Richards FRS, and was born at Clifton, Bristol. He attended a preparatory school there before being sent to St. Edward's School, Oxford for an education chiefly along "classical" lines. Having an early interest in natural history, he was given special tuition in zoology by Edward Poulton and allowed to study comparative anatomy at the Oxford Museum. When he left St. Edmunds, his parents decided to let him adopt a scientific career and he became a pupil at Frank Townsend's School at Clifton and attended biological and geological courses at University College, Bristol under Professors Lloyd Morgan and Solas.

In 1885 he obtained through competitive examination the post of Assistantship on the staff of the Zoological Department at the British Museum. After working for a year in the Entomology Section, he was placed in charge of the Arachnida and Myriapoda. His first task, however, was to rearranging the collection of British Birds in the public gallery which, along with work in the field, gave him a lasting interest in ornithology. He, apparently, showed great aptitude for the work he was doing during his eighteen years at the Museum and had an enormous output of scientific publications. In 1895, on the recommendation of Sir William Flower, Director of the Natural History Museum, he was promoted to First-Class Assistant.

Pocock had a long-standing interest in mammals and later published many papers on them including an account of the species and sub-species of zebras (Pocock, 1897). When the post of Superintendent at Regents Park Zoo became vacant in 1903, he was appointed to this role and in 1904 left the Museum. He retired from his post at the Zoo in 1923 and then worked as a voluntary researcher on mammals back at the museum. He died in his sleep of a coronary thrombosis in 1947. An account of his life & work with a list of publications was published in the *Biographical Memoirs of Fellows of the Royal Society* (Hindle, 1948)

Collections and Contacts

During Pocock's tenure at the museum numerous collections from various parts of the world were received and material described. This material also certainly included British material. Amongst the latter we read in the history of the museum's collections (Pocock, 1906a) of large numbers of specimens of myriapods collected by Oldfield Thomas from various parts of England during the period 1889-1900. Also, in 1889, of a collection of 250 British centipedes containing many species new to the collection, by Oldfield Thomas and Pocock. In 1892 a collection of 319 millipedes from the south of England collected and presented by Oldfield Thomas is referred to.

Through his work at the Museum, Pocock would have been in contact with many people, both professional biologists and lay people. A scan through all relevant literature will, no doubt find reference to Pocock's work on identifying various British specimens such as that of *Linotaenia maritima* (*Strigamia maritima*) from Bexhill (Scherren, 1895). One interesting snippet was his contribution regarding myriapods to the book *Rugby past and Present* (Wait, 1893).

Publications

Pocock published large numbers of papers and notes on arachnids, myriapods, mammals, etc. during his tenure at the museum and subsequently. Of these, a paper on a new genus and species of Polyzoniidae, *Pseudodesmus verrucosus* from Perak (Malay Peninsula) in the *Annals and Magazine of Natural History* would seem to be the first specifically myriapod one (Pocock, 1887) - he was described in this as "Assistant Naturalist, British Museum".

The list of his published material in the Royal Society obituary (Hindle, 1948) includes about eighty publications partly or solely on myriapods. He seems to have been responsible for the description of three to four hundred species of millipede (Sierwald & Bond, 2007). For centipedes, based on the database *Chilobase*, it seems that Pocock named 101 valid species or subspecies plus 40 synonyms and 13 valid genera (L. Bonato *pers. comm.*). Eason (1973) examined some 20 of his named specimens of the genus *Lithobius* in in the Natural History Museum and reviewed their status.

Notes and papers relating to Britain and Ireland form a small but interesting minority. In those referred to herein both species names used by Pocock as in his publications along with species names as in the two most recent British / Irish atlases for millipedes (Lee, 2006) and centipedes (Barber, 2022) are given. In Pocock's work the spelling was sometimes "myriopod", other times "myriapod".

What seems to have been his last zoological paper was published posthumously in *Zoo Life* in 1948 (Pocock, 1948) and was on beavers.

1889 "A marine millipede"

Despite the title, this note (Pocock, 1889) is about marine centipedes and is a response to a note in the same volume of *Nature* by D.W.T. (1889, presumably Darcy Wentworth Thompson) where the latter had drawn attention to the finding of *Geophilus* (*Schendyla*) *marina* (= *Hydroschendyla submarina*) on Jersey by Mr Sinel. "Some examples were found close to the low-water mark of very low spring tides, where they could not be exposed on two days in a fortnight."

Pocock, in turn, reports the fact that specimens had been found at Polperro (along with *Linotaenia maritima* (*Strigamia maritima*) "more than 20 years ago" and had been presented to the British Museum in 1886.

The species had been first described, by Grube, from St. Malo in 1872. It seems that Parfitt's 1873 record of *Arthronomalus littoralis* from the South Devon Coast was also this species (Bonato & Minelli, 2014 cited by Barber, 2022).

It is a species of rock crevices down to mid-tide level (Sinel had apparently used a crow-bar in collecting it) and with an apparent southern distribution so perhaps may appear to be rather more rare than it really is.

1891 The history of a long-forgotten *Lithobius*

In this paper (Pocock, 1891) the author reports on a "magnificent specimen" of the genus *Lithobius* collected for him by Oldfield Thomas on St. Michael's Mount during the autumn of 1890. Examination of material in the Museum showed that the animal was identical with the type of *Lithobius pilicornis*, of which *L. sloani* and *L. longipes* were synonyms, with records from the Azores, Madeira and Morocco. Pocock's *Lithobius doriae* from Italy seems to be a subspecies of *L. pilicornis* (Eason, 1973).

The 1891 paper gave a full description of *Lithobius pilicornis* which was referred to by Eason (1971) in his review of Newport material in the Natural History Museum. The centipede atlas (Barber, 2022) records the species from 74 hectads across Britain and Ireland. Many of these records are from synanthropic sites but it can also be found in some rural woodlands in west Cornwall.

1893 Notes on some Irish myriopods (sic)

In this report in the *Irish Naturalist* (Pocock, 1893) the author reports on material made available to him by R.F. Scharff of Dublin and by G.H. Carpenter. It seems that Pocock had hoped to find something unusual in these collections but, in the event, he seems to have been disappointed, finding only species of the same sort as those in occurring southern England. It was only in a second collection from Carpenter that he did find a millipede not previously known from Britain or Ireland. This was *Polydesmus gallicus*, now known as *Polydesmus coriaceus*, originally described from Normandy and, at the time, unknown from Great Britain.

Nine centipede species and twelve millipede ones are listed with various comments on them in quotation marks.

Chilopoda

Lithobius forficatus, Lithobius variegatus, Lithobius melanops, Lithobius microps, Cryptops hortensis, Geophilus flavus, Geophilus carpophagus, Linotaenia crassipes (Strigamia crassipes), Linotaenia maritima (Strigamia maritima), Stigmatogaster subterraneus (Stigmatogaster subterranea).

As well as listing localities for *L. variegatus*, the comment is made "Abundantly distributed throughout the British Isles and occurs also in Jersey. It has not yet, however, been recorded from any part of the continent of Europe". As we now know, this is, indeed substantially still the case. There are, however quite large areas of eastern England and Scotland where it is apparently rare or absent (Barber, 2022). As well being found in the Channel Islands there are a few records from NW and SW France and Iberia.

In relation to *Geophilus carpophagus*, it is likely that the species concerned is most probably *Geophilus easoni* on Great Sugar-loaf Mountain and other upland areas.

Diplopoda

Polyxenus lagurus, Glomeris marginata, Polydesmus complanatus (not P. complanatus but P. angustus), Polydesmus gallicus (P. coriaceus), Brachydesmus superus, Atractosoma polydesmoides (Nanogona polydesmoides), Blaniulus fuscus (Proteroiulus fuscus), Iulus luscus (Cylindroiulus latestriatus), Iulus punctatus (Cylindroiulus punctatus), Iulus pilosus (Ophyiulus pilosus), Iulus niger (Tachypodoiulus niger), Iulus sabulosus (Ommatoiulus sabulosus).

Polydesmus gallicus was recorded from: Armagh: Mullingar, Lismore, Castletown Berehaven and Glengariff. *Polydesmus complanatus* is not known in Britain or Ireland.

Comments on "Irish Myriapods"

Although the list was relatively short and, for Pocock, disappointing (apart from "*Polydesmus gallicus*"), it formed a valuable basis for further studies with more Irish records being added by Brōlemann, Carpenter, Selbie, Kew, Johnson, Foster and others with a succession of reports on Irish myriapods up until the time of the First World War.

1895, 1896 Luminous centipedes

In November 1895 Rose Haig Thomas of Basildon wrote to *Nature* regarding observed luminescence in a centipede:

"Returning home on a very dark evening a few days ago, I saw on the ground a greenish phosphorescent light which, in the distance, I took to be a glow-worm (*Lampyris noctiluca*), but a nearer approach showed a luminous thread-like worm of 1¼ inches in length, moving in curves along the gravel drive. I stooped and placed a finger and thumb on either side of the glowing thread without actually touching it, and in a few seconds observed that, aware of danger either from scent or vibration, the insect showed

a remarkable power of control over its luminosity, invaluable for protection. It began to extinguish its light, and in a most peculiar fashion, not dying slowly out all over, but with a rapid wave of darkness sweeping from the tail to the head, then in a second or so glowing brightly all over again, repeating the manœuvre several times so long as my finger and thumb remained in its vicinity. A glass was brought, into which I transferred the insect, where it glowed with a lessened light for three or four hours. The next night the phosphorescence was very feeble, and on the morning following the insect was dead." (Harris, 1895).

Pocock (1895) responded directly to Miss Haig's communication:

"The above communication certainly refers to one of the luminous centipedes of the family *Geophilidæ*; and since the species that most commonly draws attention to itself in England by the exhibition of phosphorescence is of a reddish-orange colour and is known as *Linotænia crassipes*, there is no reason to doubt that the specimen under discussion was an example of this species. The property of luminosity lies in an adhesive fluid secreted by glands which open upon the lower surface of the body, and the power of discharging or retaining the fluid appears to be entirely under the centipede's control."

In a subsequent note, in response to a question of Mr Lloyd Bozward (Pocock, 1896), he comments of *Geophilus electricus* that, despite its Linnean name, not one of the many specimens brought to the British Museum as showing luminosity had been that species. In the Victoria Histories (Pocock, 1900c, 1902, 1906a) he remarks that *Strigamia crassipes* and S. *acuminata* (*Linotaenia acuminata*) are the two common British luminous centipedes.

Comments

Brade-Birks & Brade-Birks (1920), who carried out several experiments on luminescence, used *Geophilus carpophagus* s.l. (i.e. *Geophilus easoni* or *Geophilus carpophagus* s.s.). In recent years, most reports of geophilomorph bioluminescence in Britain where the species was precisely determined do seem to refer to *Geophilus easoni* but it has also been noted in *Geophilus carpophagus* s.s.

It is improbable that Pocock was confusing *G. easoni* with a Strigamia species but what is interesting is that all four of the species referred to here are (a) reddish or brownish compared with the paler colours of most British geophilomorphs and (b) on the limited data available (Barber & Keay, 1988: Table 6), seem to prefer more superficial litter/soil horizons (i.e. they are epigeic rather than hypogeic). Whether this is linked in any way with luminosity is open to speculation. For more information on luminescence in centipedes refer to Lewis (1981).

In the light of Pocock's comments about "common" species it is interesting to note the numbers of records of species as reported in the centipede atlas (Barber 2022). By far the greatest majority of these would have been made in the last fifty years.

Species	Number of Records	Notes
Strigamia acuminata	678	
Strigamia crassipes	502	
Geophilus carpophagus s.l.	1,856	G. carpophagus + G. easoni
Geophilus carpophagus s.s.	180	
Geophilus easoni	785	
Geophilus electricus	400	

Overall total atlas records for all species of centipede (Britain, Ireland, Isle of Man, Channel Islands) is 53,097 (Barber, 2022).

1900 Marine centipede in Somerset

This is a short note in *Zoologist* (Pocock, 1900a) reporting his finding of large numbers of centipedes (*Strigamia maritima*) of all sizes swarming over seaweed at Portishead. Pocock writes, "I had hitherto looked at this centipede as a rarity to be picked up only by ones or twos. Great therefore was my astonishment, when turning over the line of seaweed marking the high spring tide to find specimens of all sizes swarming amongst the slimy decaying fronds and wriggling away into darkness in company with hosts of scuttling woodlice and hopping sand-shrimps whilst here and there was a cluster of them feeding upon the remains of one of these crustaceans".

1900 Iulus londinensis and Iulus teutonicus

Kime & Enghoff (2017) comment that there had been "much confusion" in relation to the identity of *Cylindroiulus caeruleocinctus* (*C. teutonicus*). Leach had originally described *Iulus londinensis* from the vicinity of London but there had been subsequent confusion with another species which Pocock (1900b) describes here as *Iulus teutonicus*, a rather smaller species of similar appearance. He used this name in subsequent publications.

Pocock described how *I. londinensis* was a larger and fatter animal, length 38-48mm long, 4mm diameter compared with his *I. teutonicus* at 25-35mm. width 2.5 mm. Distinctive was the fact that *I. londinensis* has a short, subcylindrical, unpointed (club-shaped) caudal process whereas that of *I. teutonicus* is just obtusely angular and not even sub-mucronate. There are also differences in the pattern of the tergite striae.

Brade-Birks (1922), referred to a publication of Chamberlin (1921) and to correspondence with the latter concerning *C. teutonicus* which appeared to be called *londinensis* in North America and on the continent of Europe. He came to the conclusion that it was synonymous with *Iulus caerulo-cinctus* of Wood (1864) and so refers to it as *C. londinensis* var *caeruleocinctus* (Wood). Reference to Wood's original description does not give a location for the species but the paper, published by the Philadelphia Academy, was entitled "Descriptions of New Species of North American Iulidae". Chamberlin refers to it as *Diploiulus londinensis* with *Julus londinensis* (Leach) and *Julus caeruleo-cinctus* Wood as synonyms. He described it as being "our most commonly observed member of the family it is abundant throughout New England and adjoining parts of Canada and New York State". On Brade-Birks' interpretation, this is the species we now refer to as *Cylindroiulus caeruleocinctus* (= *C. teutonicus*), but not the *C. londinensis* of Leach).

In Gordon Blower's first millipede synopsis (Blower, 1958), *londinensis* and *caeruleocinctus* were treated as forms of *C. londinensis* with reference also to a form *finitimus*. In subsequent years with further collections of the "true" *londinensis*, including immatures, it became clear that *C. londinensis* and *C. caeruleocinctus* were distinct species and are treated as such in the second synopsis (Blower, 1985). Demange (1981) had referred to *caeruleocinctus* as "Differe de *londinensis* par son ecologie".

Reference to the European millipede atlas (Kime & Enghoff, 2017) shows the distribution of the two species in Europe with relevant comments and Lee (2006) in more detail for Britain and Ireland.

1900-1906: The Victoria County Histories

In 1899 the Westminster publisher Archibald Constable launched The *Victoria History of the Counties of England* with volumes intended for each of the English counties. From 1900 to 1906, under the subject of Natural History, a list of Myriapoda (centipedes and millipedes) under Pocock's authorship was included in six of these county histories: Hampshire & the Isle of Wight (Pocock, 1900c), Cumberland (Pocock, 1901a), Norfolk (Pocock, 1901b), Surrey (Pocock, 1902), Essex (Pocock, 1903), Somerset (Pocock, 1906b). By 1906, Pocock had left the Natural History Museum and there were, it

seems, no further such lists by him although Worthington (1938) included a list in the volume for Cambridgeshire & the Isle of Ely. However, Sinclair (1904) had already published a list of myriapods in the *Natural History of Cambridgeshire* and these records, along with others, were included in the Worthington list. Frank Morey's (1909) *Guide to the Natural History of the Isle of Wight* quotes the *Victoria History* list. Most *Victoria History* notes were referenced in relation to centipedes by Eason (1964).

The Pocock reports included names of species as in the then current use, localities and collectors. Tables 1A and 1B summarise the 1900-1906 reports with current names in the tables and names used by Pocock in the notes.

Table 1A: Species recorded in the Victoria Histories 1900-1906 (Centipedes).

Names given as in Barber, 2022 with notes of Pocock's names as used.

H/IOW = Hampshire & Isle of Wight, Cumb'ld = Cumberland, Som'set = Somerset

County (Volume)		H/IOW	H/IOW	Norfolk	Cumb'ld	Surrey	Essex	Som'set
		Hants	IOW					
Chilopoda	Notes	1900	1900	1901b	1901a	1902	1903	1906b
Lithobius forficatus		•		•		•	•	•
Lithobius variegatus			•		•	•		•
Lithobius melanops		•	•					•
Lithobius calcaratus		•		•	•		•	•
Lithobius crassipes							•	•
Lithobius microps								•
Lamyctes emarginatus	1							•
Cryptops hortensis		•	•			•	•	•
Cryptops anomalans						•		
Geophilus flavus		•	•		•	•	•	•
Geophilus carpophagus	a	•			•	•	•	•
Geophilus impressus	2, b						•	
Geophilus truncorum							•	•
Strigamia acuminata	3						•	•
Strigamia crassipes	4, c		•			•	•	•
Strigamia maritima	5						•	•
Schendyla nemorensis							•	•
Stigmatogaster subterranea	6	•	•			•		•

Notes: Pocock's names: 1. *Lamyctes fulvicornis* 2. *Geophilus proximus* (in more recent years known as *Geophilus insculptus*) 3. *Linotaenia acuminata* 4. *Linotaenia crassipes* 5. *Linotaenia maritima* 6. *Stigmatogaster subterraneus*

- a. "Geophilus carpophagus" as listed here is most likely or possibly entirely Geophilus easoni as currently named.
- b. Geophilus proximus as now understood has only been recorded in Britain from the Shetland Islands.
- c. This and its congener *Linotaenia acuminata* (*Strigamia acuminata*) are the two common British luminous centipedes according to Pocock.

Table 1B: Species recorded in the Victoria Histories 1900-1906 (Millipedes).

Names given as in Lee 2006 with notes of Pocock's names as used.

H/IOW = Hampshire & Isle of Wight, Cumb'ld = Cumberland, Som'set = Somerset

County		H/IOW	H/IOW	Norfolk	Cumb'ld	Surrey	Essex	Som'set
		Hants	IOW					
Diplopoda	Notes	1900	1900	1901b	1901a	1902	1903	1906b
Polyxenus lagurus		•					•	
Glomeris marginata			•			•		
Polydesmus angustus	1, a			•	•	•	•	•
Polydesmus denticulatus					•			
Polydesmus inconstans								•
Propolydesmus testaceus	2						•	
Brachydesmus superus				•			•	•
Oxidus gracilis	c					(●)		
Nanogona polydesmoides	3		•	•	•		•	•
Blaniulus guttulatus		•				•	•	•
Proteroiulus fuscus	4							•
Cylindroiulus britannicus	5		•					•
Cylindroiulus caeruleocinctus	6	•				•		•
Cylindroiulus londinensis	b					?		
Cylindroiulus punctatus	7		•	•		•	•	•
Julus scandinavius	8						•	•
Ophyiulus pilosus	9				•	•	•	
Tachypodoiulus niger	10		•	•	•	•	•	•
Ommatoiulus sabulosus	11			•	•		•	
Brachyiulus pusillus	12							•

Notes:

Pocock's names: 1. Polydesmus complanatus 2. Polydesmus subintiger 3. Atractosoma polydesmoides

- 4. Blaniulus fuscus 5. Iulus britannicus 6. Iulus teutonicus. 7. Iulus punctatus 8. Iulus ligulifer
- 9. Iulus pilosus 10. Iulus niger 11. Iulus sabulosus 12. Iulus pusillus
- a. Polydesmus complanatus is not known from Britain (as noted earlier).
- b. *Cylindroiulus londinensis* (*Iulus londinensis*) recorded from the environs of London "may prove to belong to the Surrey fauna".
- c. *Oxidus gracilis* (here called *Orthomorpha gracilis*) is "of common occurrence in many of the conservatories in England and other countries of Europe where it breeds in profusion". Here recorded from Kew Gardens

Comments on the Victoria County History lists

Although myriapod species records of various dates were collected across the British Isles, the county histories provide us with data that can be visualised in geographical terms and, possibly, begin to see what might ultimately become the hectad (and tetrad) maps of the middle of the twentieth century onwards.

There are, of course, many limitations. Only seven counties are included (counting Hampshire and the Isle of Wight separately), all of which, except one are from the south eastern region of England and each is represented by only a handful of sites. In addition, experience has taught us that different collectors working in different ways, at different times and in different sorts of habitat may produce records of different species.

Maybe there are some hints of wider patterns such as the non-recording of *Lithobius variegatus* from Essex and Norfolk which, today, fits into a pattern of its absence or scarcity in much of eastern England and Scotland (and most of Europe) whilst being common and widespread in rural areas in western Britain and in Ireland.

1901 Some questions of Myriapod nomenclature

This is a short paper (Pocock, 1901c) in two parts discussing (a) issues of nomenclature in Leach's species of the genus *Geophilus* and (b) the genera of blaniulid millipedes.

a. Leach's genus *Geophilus* had contained *G. carpophagus*, *G. subterraneus*, *G. acuminatus* and *G. longicornis*. Subsequent workers, including Newport, had created various separate genera, *Necrophloeophagus* (= *Arthronomalus*), *Scnipæus*, *Linotænia* and *Stigmatogaster* and Pocock was here, it seems, endeavouring to identify type species for each genus.

Following his review of type species, his suggestion was:

Possible generic names	Type			
Necrohloeophagus Newport (Arthronomalus)	longicornis			
Scnipæus Meinert	carpophagus (= sodalis)			
Linotænia Leach	acuminata (= rosulans)			
Geophilus Leach	subterraneus			

Pocock's proposals failed to gain wider currency in the long-term and at the present time *Geophilus flavus* and *Geophilus carpophagus* (as they are currently known) are placed in the Geophilidae, *Strigamia* (*Linotaenia*) in the Linotaeniidae and *Stigmatogaster subterranea* in the Himantariidae.

b. The genus *Blaniulus* was established by Gervais in 1836 for the reception of the blind *Iulus* guttulatus. Following his review, Pocock proposed:

Generic names	Type
Blaniulus Gervais (= Typhloblaiulus)	guttulatus
Trichoblaniulus Verhoeff	Blaniulus hirsutus Brol.
Nopoiulus Menge	Nopoiulus Kochii Gervais
Proteroiulus Silvestri	Blaniulus fuscus Stein

Blaniulus hirsutus is now known as Trichoblaniulus hirsutus and Blaniulus fuscus as Proteroiulus fuscus.

The reported occurrence of *Nopoiulus kochii* in the British Isles is of some interest. It has been reported here since at least the early part of the 20th century but there had been much nomenclatural confusion and with re-examination of specimens identified as the species all turned out to be those of others (Lee, 2006). This led Gordon Blower in the second edition of his millipede synopsis (Blower, 1985) to write that "There remains no evidence that *N. minutus* (= *venustus* in the sense of Schubart, 1934) has ever occurred in Britain, but there is a possibility that it may occur". In the spring of 1986, at a BMG/BISG meeting in Manchester, it was collected there by Steve Hopkin (Hopkin & Blower, 1987). The millipede atlas (Lee, 2006) shows a map of its, then current, hectad distribution.

1906 The Kew Bulletin

Published in the *Additional Series V* of the (Kew) *Bulletin of Miscellaneous information* and entitled "The Wild Fauna and Flora", this contains lists of species of both centipedes and millipedes, both "native" and "exotic", that had been found in the Royal Botanic Gardens (Pocock, 1906c)

Species already noted from "Surrey" in the Victoria History are marked with an asterisk (*). Comments made by Pocock in the report are in inverted commas ("") whilst comments from the present author are in square brackets [].

Chilopoda

*Lithobius forficatus. "Common everywhere throughout Europe"

*Cryptops hortensis. "Common throughout temperate Europe"

*Cryptops anomalans. "This species belongs typically to the fauna of the Mediterranean area and has hitherto not been met with elsewhere in Great Britain, nor so far north as London in any country of Europe". [Cryptops savignii which is a synonym of C. anomalans was in fact, first described by Leach in 1817 from the garden of the then British Museum in London.]

Scolopendra morsicans. (Presumably S. morsitans) "Introduced amongst living plants from India".

Scolopendra subspinipes. "Introduced from the Tropics"

*Geophilus flavus. "Common throughout Europe"

Geophilus electricus. "European species but not common in England" [Not recorded in any of the 1900-1906 Victoria History lists]

G. sp. "In rotten wood. Apparently not identifiable with any British species".

Mecistocephalus punctifrons. "Imported probably from India". [The identity of the species referred to here is uncertain (Barber, 2022) but it does seem to be the first record from Britain of a mecistocephalid centipede. At the present time, the seemingly parthenogenetic *Tygarrup javanicus* has been recorded from a number of heated sites whilst Mecistocephalus guildingii is known from the Eden Project in Cornwall.].

Stigmatogaster subterraneus. (Stigmatogaster subterranea). "A common British species".

Diplopoda

An attempt to recognise current names for exotic species has been made using the on-line database MilliBase (2025) and these are given in parenthesis.

*Polydesmus complanatus (Polydesmus angustus). "Common in cool plant houses and elsewhere" [Polydesmus angustus was frequently identified as Polydesmus complanatus, a similar but not identical species and, as already noted, one not known from Britain].

Brachydesmus superus "Common in the south of England and in central Europe".

Orthomorpha coarctata (Saussure). "Arboretum". [Orthomorpha coarctata*]

*Orthomorpha gracilis. [Oxidus gracilis] "This species and the preceding are world-wide in their distribution owing to artificial importation".

Orthomorpha Kelaati "Imported amongst living plants from Ceylon" [Chondromorpha kelaati (Humbert)*]

*Iulus teutonicus (Cylindroiulus caeruleocinctus). "Common in the south of England and western Europe".

Typhloiulus sp.? "Amongst rotten stumps, south of Herbaceous ground".

Trigoniulus Goësi. "Distributed all over the world by human agency".

[Trigoniulus corallinus (Eydoux & Soulyet)*]

Rhinocricus monilicornis. "Imported from Barbados in living plants. Known also from Demerara, Hayti and Bermuda". [Anadanobolus monilicornis (Porat)*]

Rhinocricus Vincenti. "Introduced in October 1900 amongst living plants from St. Vincent, West Indies. First record of this species from Britain" [Anadenobolus vincentii (Pocock)*]

Spirobolellus sp. "In stoves. Probably imported from the Oriental Region".

Comments on the Kew Bulletin list:

The list of species comprises:

- a. Species that can be described as "native" to Britain comprising those marked with an asterisk for occurrence in Surrey (as in the *Victoria History* but excluding *Oxidus gracilis* which is known here from heated sites) together with *Geophilus electricus* and *Brachydesmus superus*.
- b. "Exotic" species best described a "non-native" or "alien" which have been introduced to Britain from elsewhere in the world and would seem unlikely to survive here long-term outdoors although there is only limited data on whether they were restricted to sheltered sites at Kew.
- c. It is also possible that some introduced species might be able to survive outdoors in this country and become permanent or semi-permanent members of our fauna.

The comments made regarding the exotic millipedes introduced give some insight of how they may have spread more than a hundred years ago when standards of biosecurity could have been different. There have been a number of reviews of myriapods found in greenhouses and similar places in recent years such as that of Stoev *et al.* (2010).

General Comments

Individual notes or papers by Pocock have been reviewed and commented on rather than trying to produce an overall assessment. These publications reflect a diversity of aspects of myriapod biology and, hopefully, may give some idea of the climate of myriapod studies around the turn of the nineteenth/twentieth century and to be of interest to present day students of these animals. Pocock's work gave some bases for later myriapodologists. The Irish paper of 1893, as noted, formed much of the starting point for studies in that country up until about 1920 but the Great War and Partition led to such work more or less ceasing until the latter part of the twentieth century when Martin Cawley, Roy Anderson and others led to their revival.

In Britain, after what we might call the "Pocock period" in myriapod studies, A. Randall Jackson, H.K. and S.G. Brade-Birks and Richard Bagnall made massive contributions to the study of our animals in the first half of the twentieth century and we are still looking at our myriapods today.

One might regret that Pocock had not published more on British and Irish myriapods and that, for instance, further Victoria History type lists or observations about specific topics like those on marine myriapods or luminescence had not appeared. But we must be aware of the wide range of his responsibilities (including Arachnida as well as Myriapoda) and interests (including mammals) and the role of the museum in an international context and appreciate his work as referred to here.

^{*}Iulus punctatus (Cylindroiulus punctatus). "A common European species".

^{*}Blaniulus guttulatus. "A common European species".

Acknowledgements

Dr Helen Read (Burnham Beeches) for information and comment especially with regard to millipedes and millipede nomenclature and to Dr Lucio Bonato (Padova) for data derived from the latest version of the on-line database *Chilobase* in relation to numbers of centipede taxa described by Pocock.

References

- Barber, A.D. (2022) Atlas of the Centipedes of Britain and Ireland. Telford, FSC Publications.
- Barber, A.D. & Keay, A.N. 1988) *Provisional atlas of the centipedes of the British Isles*. Huntingdon, Biological Records Centre, Natural Environment Research Council.
- Blower, J.G. (1958) *British Millipedes (Diplopoda)*. Linnean Society Synopses of the British Fauna **35**. London, Linnean Society.
- Blower, J.G. (1985) *Millipedes*. Linnean Society Synopses of the British Fauna (New Series) 11. London, Leiden, Köln. København, E.J. Brill, W, Backhuys.
- Bonato, L. & Minelli, A. (2014) Chilopoda Geophilomorpha of Europe: a revised list of species, with taxonomic and nomenclatorial notes. *Zootaxa* **3770**: 1-136.
- Brade-Birks, S.G. (1922) Notes on Myriapoda XXVI The names of some Iulidae and Blaniulidae. *Annals & Magazine of Natural History* (Ser. 6) **9**: 160-163.
- Brade-Birks, H.K. & Brade-Birks, S.G. (1920) Notes on Myriapoda XX: Luminous Chilopoda with special reference to Geophilus carpophagus Leach. Annals & Magazine of Natural History (Ser. 9) 25: 1-30.
- Chamberlin, R.V. (1921) The Iulidae and Isobatidae of North America. *Proceedings of the Biologicl Society of Washington* **34**: 81-84.
- Demange, J-M. (1981) Les Mille-pattes Myriapoda. Paris Éditions Boubée.
- D.W.T. (1889, presumably Darcy Wentworth Thompson) A marine millipede Nature 41: 104
- Eason, E.H. (1964) Centipedes of the British Isles. London, Warne
- Eason, E.H. (1971) The type specimens and identity of the species described in the genus *Lithobius* by George Newport in 1844, 1845 and 1849 (Chilopoda, Lithobiomorpha). *Bulletin of the British Museum (Natural History) (Zoology)* **21**: 297-311.
- Eason, E.H. (1973) The type specimens and identity of the species described in the genus *Lithobius* by R. I. Pocock from 1890 to 1801 (Chilopoda, Lithobiomorpha). *Bulletin of the British Museum* (*Natural History*) (*Zoology*) **25**: 41-83.
- Harris, R.H. (1895) A luminous centipede. *Nature* 53: 131.
- Hindle, E. 1948 Reginald Innes Pocock 1863-1947 *Biographical Memoirs of Fellows of the Royal Society.* **6 (17)**: 189-211.
- Hopkin, S.P. & Blower, J.G. (1987) Displaced ocelli in blaniulid millipedes. *Bulletin of the British Myriapod Group* **4**: 27-28.
- Kime, R.D. & Enghoff, H. (2017) *Atlas of European millipedes 2 Order Julida*. European Journal of Taxonomy **346**: 1-299. https://dti.org?10.5852/ejt.2017.346.
- Lee, P. (2006) Atlas of the Millipedes (Diplopoda) of Britain and Ireland. Sofia, Moscow, Pensoft.
- Lewis, J.G.E. (1981) *The Biology of Centipedes*. London, New York, New Rochelle, Melbourne, Cambridge University Press.
- MilliBase: Sierwald, P.; Decker, P.; Spelda, J. (2025). MilliBase. Accessed at https://www.millibase.org on 2025-05-22. doi:10.14284/370.
- Morey, F. (1909) A Guide to the Natural History of the Isle of Wight. Newport, County Press.

- Pocock, R.I. (1887) description of a new genus and species of Polyzoniidae. *Annals & Magazine of Natural History* (Ser. 5) **20**: 222-226.
- Pocock, R.I. (1889) A marine millipede. Nature 41: 176-177.
- Pocock, R.I. (1891) The history of a long-forgotten British *Lithobius*. *Annals & Magazine of Natural History* (Ser. 6) **7**: 367-374.
- Pocock, R.I. (1893) Notes upon some Irish myriopods. Irish Naturalist 28: 309-312.
- Pocock, R.I. (1895) Untitled (A luminous centipede). Nature 53: 131.
- Pocock, R.I. (1896) A luminous centipede. Nature 53: 223.
- Pocock, R.I. (1897) The species and sub-species of zebras. *Annals & Magazine of Natural History* (Ser.6) **20**: 33-51.
- Pocock, R.I. (1900a) Marine centipede in Somerset. Zoologist (4) 4: 484-5.
- Pocock, R.I. (1900b) Two English millipedes, *Iulus londinensis* Leach and *Iulus teutonicus (sp.n.)*. *Annals & Magazine of Natural History* (Ser. 7) **6**: 206-207.
- Pocock, R.I. (1900c) Myriapoda. *The Victoria History of the Counties of England, Hampshire and the Isle of Wight* 1: 163-165. Westminster, Archibald Constable.
- Pocock, R.I. (1901a) Myriapoda. *The Victoria History of the County of Cumberland* 1: 143-144. Westminster, Archibald Constable.
- Pocock, R.I. (1901b) Myriapoda. *The Victoria History of the Counties of England, Norfolk* 1: 171-172. Westminster, Archibald Constable.
- Pocock, R.I. (1901c) Some questions of Myriapod nomenclature. *Annals & Magazine of Natural History* (Ser. 7) **8**: 329--331
- Pocock, R.I. (1902) Myriapoda. *The Victoria History of the Counties of England, Surrey* 1: 176-178. Westminster, Archibald Constable.
- Pocock, R.I. (1903) Myriapoda. *The Victoria History of the County of Essex* 1: 153-155. Westminster, Archibald Constable.
- Pocock, R.I. (1906a) Myriopoda in *The history of the collections contained in the Natural History Departments of the British Museum* 2. London, Trustees of the British Museum.
- Pocock, R.I. (1906b) Myriapoda. *The Victoria History of the County of Somerset* 1: 121-134. Westminster, Archibald Constable.
- Pocock, R.I. (1906c) Myriapoda in The Wild Fauna and Flora of the Royal Botanic Gardens Kew. Royal Botanic Gardens, Kew. Bulletin of Miscellaneous Information. Additional Series 5: 21-22.
- Pocock, R.I. (1948) Beavers and their work. Zoo Life 3: 53.
- Sierwald, P. & Bond, J. (2007) Current Status of the Myriapod Class Diplopoda (millipedes). Taxonomic Diversity and Phylogeny. *Annual Review of Entomology* **52**(1): 407-420.
- Sinclair, F.E. (1904) Myriapoda *in* Marr, J.E. & Shipley, A.E. (eds.) *Handbook to the Natural History of Cambridgeshire*. Cambridge, University Press.
- Scherren, H. (1895) "Linotænia maritima" (Leach). Nature 53:152.
- Stoev, P., Zapparoli, M, Golovatch, S., Enghoff, H., Akkari, N., Barber, A. (2010) Myriapods (Myriapoda) *Biorisk* **4(1)**: 97-130.
- Wait, W.O. (1893) Rugby past and present with an historical account of neighbouring parishes. Rugby, Albert Frost.
- Wood, H.C. (1864) Description of new species of North American Iulidae. *Proceeding of the Academy of Natural Sciences of Philadelphia* **1864**: 10-16.
- Worthington, E.B. (1938) Myriapoda in Salzman, L.F. (ed.) The *Victoria History of Cambridgeshire* and the *Isle of Ely* 1: 87-88. London, Oxford University Press.