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ARACHNOLOGICAL HISTORY

The Revd. Octavius Pickard-Cambridge, M.A., F.R.S. (1828 - 1917)

The fact that 1979 is the one hundredth anniversary of the publication of Pickard-Cambridge's Spiders of Dorset should not pass unnoticed. The volume was published in two parts, but now usually it is seen as one volume. Part I is dedicated by the author to John Blackwall, F.L.S. "as a small token of long friendship, respect and gratitude during the last 25 years". The date is 1879.

Pickard-Cambridge was aged 53 years and Blackwall was 93 by the time Part II was published in 1881 and John Blackwall died during that year. Seventeen years later, in response to a query from Reginald Pocock of the Arachnida Section of the British Museum (Natural History), about Araneus redii (Scop.) 1763 (Epeira sollers Walck. 1826); Pickard-Cambridge wrote in reply as follows:

Bloxworth Rectory
Wareham.
June 9/98

Dear Mr. Pocock,

I am head over ears in many matters just now, I have only just time for a brief reply to your letter of the 8th. I have all the spiders found in Blackwall's possession at his death, but many are mixed up without names and in many cases no clue to locality even, beyond what might be inferred from the identity of specimens with his published descriptions. I have now and again identified some. I hope to go through all of these some day - I have not identified any Epeirids as far as I remember.

I have little doubt but that E. sollers Walck. is represented all through W. Africa only differing in being much larger than our European and British form. I will, the first moment I have to spare, hunt out a typical example or two from England, the continent of Europe and W. Africa and send them to you.

Truly yours,

O.P. Cambridge.

The remains of John Blackwall's collection are now incorporated in that of Pickard-Cambridge at the Hope Department of Zoology at Oxford University. (M.W.R. de V. Graham. pers. comm. 1974). It would appear from this letter to Pocock that, having reached so great an age, Blackwall was no longer able to continue his life's work. If we are fortunate to live long enough then the infirmities of old age creep upon us and leave us stranded on the ebb tide of a life time. Senility affects different people in different ways. From the time he was 80 and for the last nine years of his life, Pickard-Cambridge was constantly at work with specimens sent to him. His hand and eye were as

Single specimens of Thyreothenius parasiticus (Westring) were taken from under bark in Kilton Woods and at Upsall Bank (near Eston).

Erigone longipalpis (Sundevall) was abundant among Puccinellia at Coatham Sands and on the salt flats at Cowpen Marsh.

Walckenaera nodosa O.P.-Camb. and Agyneta subtilis (O.P.-Camb.) were taken from Sphagnum at Hart Bog (VC66), which is a floating mire. Sintula cornigera (Blackwall) was taken from moss (mostly Hypnum) under Calluna on Guisborough Moor.

The moorland within the County of Cleveland (including parts of the North Yorks Moors) rises to about 290m. Collecting on Eston Moor was at 200m, and on Moorsholm Moor between 245 and 275m. Only four species of 'sub-montane' spiders were found - Trichopterna mengei (Simon) and Caledonia evansi O.P.-Camb. on Eston and Moorsholm; Porrhomma montanum Jackson on Moorsholm; and Meioneta gulosa (L. Koch) on Eston.

A single male Erigone arctica (White) was caught in a pitfall trap in partially bare ground on Eston Moor. This species was taken in small numbers at Seaton and Coatham Sands; under Lyme grass and Agropyron on the fore-dunes; under pieces of wood lying among short saltmarsh plants, and among taller vegetation of saltmarsh.

HARVESTMEN

15 species of Harvestmen (Opiliones) were found in the County of Cleveland (part VC66 and 62) during 1978. The more notable finds were as follows.

Oligolophus hansenii (Kraepelin) was taken frequently in pitfall traps in deciduous woodland (broadleaved and Larch) at Kilton Woods, and from tree trunks at Kilton and Saltburn Gill Woods. Oligolophus meadii Cambridge was taken from Calluna litter at the edge of Birch scrub and in the Birch litter on Eston Moor. At Coatham Sands O. meadii was taken from around Ammophila tussocks and from damp slacks with short vegetation; at Seaton it was taken in Sea Buckthorn litter. Oligolophys (Odiellus) palpinalis (Herbst) was taken in pitfall traps in Kilton woods and on Eston and Moorsholm Moors. Megabunus diadema (Fabricius) was taken on tree trunks at Kilton woods, but was sparse since only two small immatures were taken after much searching.

The most interesting finds were single specimens of Nelima silvatica (Simon) from Seaton Sands (VC66), Coatham Sands and Kilton Woods (VC62). At Seaton the specimen was taken from under slag on the North Gare Breakwater just above H.W.M. At Coatham a specimen was taken in a pitfall trap on a sparsely vegetated slag tip, by the South Gare Breakwater. At Kilton Woods the specimen was taken by hand from a leaf on a Sycamore in a Larch and Spruce plantation, at a distance of 2 km from the sea.

OPILIONES IN OBLIVION — by T. H. Savory

My attention has lately been drawn to the fact that the Harvestmen are unaccountably neglected by arachnologists, so many of whom seem to believe that Spiders are the only arachnids deserving of modern research. A few statistics will give support to this statement.

1. In that admirable volume of Transactions of the Zoological Society which printed the papers of the Exeter Congress, there are 79 items, of which two only are concerned with Opiliones.

2. The latest issue of the Journal of Arachnology contains an Index to the five volumes that have now appeared. There are 47 references to Spiders and 9 to Harvestmen.

3. The Liste des Travaux Arachnologiques which CIDA produces annually yields the following figures:-

1975	439	titles on	Araneida,	42	on Opilionida
1976	369	"	"	63	"
1977	479	"	"	64	"
	1287			169	

I have not consulted the Zoological Record because it is overloaded with Acari and its exorbitant price has put it out of reach. The totals of all the figures quoted above are 1411 and 180.

I have used the word 'unaccountable' to describe this imbalance, which is indeed surprising. It is not as if the Harvestmen present any inherent difficulties, for they are as easy to find as are Spiders easier to name, and easier to keep alive under observation. Yet our ignorance of their biology is appalling. Literature contains a few papers on ecology and a few descriptions of the behaviour of the commonest species of Phalangium and Leiobunum, but we do not know how they compare with such familiar British species as Trogulus, Nemastoma, or any of the Oligolophinae.

Any arachnologist who is seeking a subject for research is strongly recommended to consider the Opiliones. The order holds rich possibilities in a field that is almost untilled.

CONVERGENT EVOLUTION OF THERAPHOSIDAE AND LYCOSIDAE by E.W. Minch

Both Pocock (1895) and more recently Enders (1976) recognized many parallels between certain species of Lycosidae and Theraphosidae.

Lycosa tigrina (McCook) from New Jersey studied by Treat (1880) and McCook (1893) showed that many aspects of its annual cycle were similar to those of Aphonopelma chalcodes Chamberlin, a theraphosid common at Molino Basin, Pima County, Arizona (Altitude 1350m). Both species make burrows which at times are plugged by the spiders. L. tigrina constructed a burrow and then plugged it from November to April. Further similarities were evident between A. chalcodes and this lycosid in that the burrow was plugged during molting and that most of the lycosids plugged their burrows in August to evade the wasp Elis 4-notata Fabricius, which eliminated individuals maintaining open burrows. A similar situation existed for A. chalcodes in middle and late May, resulting from Pepsis sp. Just as A. chalcodes avoided cold by means of the burrow (Minch, 1977), so did this lycosid as indicated by simultaneous temperature readings of -7°C outside and 4°C within the burrow, depth not given.

Studies on Lycosa pikei Marx by Emerton (1912) revealed a mating period in August and September. Males left their burrows and searched for mates, with the resulting inseminations bringing about fertile eggs the following May and June, similar to that found in A. chalcodes (Minch, 1977). In both species the female overwintered while storing sperm. Like A. chalcodes, L. pikei ambushed prey from the burrow.

Geolycosa wrightii (Emerton), found on Canadian shores of Lake Erie burrowing in sandy beaches, silked over the burrow entrance in light winds to avoid obstruction of the burrow shaft by blowing sand (Gwynne and Watkiss, 1975). With heavy winds, the burrow was blocked by the body of the spider. Rain was the major stimulus causing A. chalcodes to block the burrow entrance with the body (Minch, 1977). Silking of the burrow entrance was also common in A. chalcodes.

Some species of lycosids not only show parallels with A. chalcodes in nest design, but also in many other habits including mating and aspects of their annual cycles.

A list of similarities between lycosids, as reported in the literature