

mature females were collected, one in September and one in November, and one mature male was collected in October. I have also collected mature females of this species in the south of France (Bernac) during June 1995, where I found them on the underside of oak leaves and maple leaves with their characteristic egg sac. In July 1995, I found mature females on the underside of apple leaves in a small garden in Petts Wood, Kent. Generally, only one egg sac was observed per female; however, one of the specimens collected in Kent was nurturing two. Another interesting question about this tiny theridiid spider is that of its systematic placement. Does it, as it appears in most of the literature, belong in the genus *Theridion* or does it belong, as suggested by Wunderlich (1987), in the genus *Paidiscura*?

Wunderlich, J. (1987) *Die Spinnen der Kanarischen Inseln und Madeiras*. Triops Verlag, Frankfurt.

David Penney

**Twin Peaks:** Bell & Haughton suggested (Newsletter 73: 3–4) that the abundance of male *Scotina gracilipes* captured in pitfall traps in sand dunes at Sefton, Lancashire, during the latter half of August 1994, could well be attributed to an increase in male activity as they search for mates. In his study of the phenology of Dorset heathland spiders, Merrett (1967: *J. Anim. Ecol.* 36: 363–374) fixed the peak of male activity in this species as late August/early September.

**Judge Not . . . :** In my review of the Proceedings of the XII International Congress of Arachnology (Newsletter 73), I criticised inconsistency in the reference lists. You will not be surprised to learn that I checked the lists in that edition of the Newsletter even more carefully than usual but, ironically, I then missed a small typo in the title of the review. A more serious lapse was the misspelling of *Deinopsis* and *Deinopidae* in the title and second line of Penney & Whitehead's article in the same edition. When he drew my attention to these mistakes, David Penney kindly refrained from reminding me of the many times that I had emphasised the need for absolute accuracy to him when he was an undergraduate student. Geoff Oxford spotted that we had cast doubts on the legitimacy of Martin Lister's children in Newsletter 72 (p. 4, col. 1, line 8). The date of his marriage was, of course, 1669 not 1689. I spent ages checking the Index to Newsletters 31–70 and then as soon as I opened the final printed copy, an obvious typo and an inconsistent piece of punctuation jumped out of the page. Must be the sunny weather producing more than the usual number of beams in my own eyes!

**Help!:** There were more items that really **had** to be published in this edition (because they were rather topical, had been held over in proof from the previous number, or had been on file since early in the year) than could be fitted into 8 pages, so this is another 'bumper edition'. However, filling 16 pages has used up virtually all my stock of material. So **please** start writing now and there's a good chance that your article will feature in the very next edition—No. 75, March 1996, the silver jubilee number, which goes to press in early January. Please write something: short notes, answers to or comments on items in previous Newsletters will be very welcome, longer articles will bring even greater joy!

J.E.D.

## Frances Mary Murphy (1926–1995)

by George O'Neill



I first met Frances Murphy at 10 p.m. on a February evening in Surbiton following one of her slide shows. At 10.05 I was astonished to find that I had volunteered to carry out a spider survey of Hackhurst Down. This would, she said, assist us both. It would enable Frances to delegate a task for which she had no appetite: in this she succeeded. It would also enable me to become adept at spider identification: in this she was less successful.

Over the years a friendship developed and we met occasionally on field trips. Frances was never happier than when sitting on a plastic sheet identifying and debating, surrounded by acolytes. 'Remember, you can identify anything in the field with absolute certainty, as long as you don't take it home for checking.' John, in the meantime, would disappear for hours, happily grubbing about and always returning with something rare or strange. 'I don't know where John is. He tends to get as far away from me as possible in the time allowed.' I was never with them on their trips to France and the Mediterranean region, but reports back from Dick Jones suggested that the pattern did not change in foreign climes.

She was a more than competent botanist and ornithologist and could identify over the telephone with astonishing accuracy.

Meals with the Murphys were always a delight, but all too soon the pleasure was diminished by illness, as her restricted diet denied her the food and drink she so enjoyed. This did nothing to restrict her conversation. She loved the cut and thrust of controversial debate, spiced with banter. She was a bonny counter-puncher. Frances seemed to have read everything and was connected to a huge range of disparate characters. Guy Fawkes was a distant relative, William Wilberforce a direct one. Her knowledge of the contemporary was astonishing. She even knew people we stayed with in a bed-and-breakfast stopover in a small town in North Wales: 'Oh yes, the husband met my brother climbing in the Alps.' I tried to capture a trace of the ambience of those mealtimes in an article in an earlier Newsletter (55: 5–6).

In the *B.A.S. Members' Handbook* there are two comments that are worth developing. 'My spiders are kept in the sitting room where they get the benefits of central heating.' Indeed they were. To enter 323 Hanworth Road was to enter a World of Spiders. As we

sipped our pre-prandial drinks, large theraphosids slowly roamed around spacious cages in the corner. We moved between and among netted constructions for web-builders. Racks of boxes and tubes held the smaller spiders and there were some containers in which, try as one might, it was impossible to see the tiny creatures that Frances insisted were there. Many a sceptical look have I given Frances, many a level stare has come back. Two walls contain bookcases, one devoted to arachnology, another to general natural history. These in addition to bookcases in other rooms, hall, kitchen . . . wherever Frances required references for obscure and arcane problems. Added to this are postcards and letters from around the world, various papers and articles, spider artefacts, flags and trophies from congresses and trips abroad. A table in the corner held spiders, glass beads, a water spray, fly cultures, magnifying glasses . . . I realise that in this description the tenses are mixed, but that is the way life is: the past and present intermingled.

The other comment from the *Handbook* is ' . . . the secret for keeping spiders successfully is to have enough interest or even devotion to make one watch the spiders carefully.' Frances loved these little creatures who never knew of her existence.

We went with a group to the A.G.M. at Cardiff. Walking back, I had forgotten the street number of our small hotel. 'Two hundred and twenty-one George, seventeen thirteens.' At breakfast in the dining room, Frances was holding forth: 'Oh yes, when *Theridion sisyphium* captures her prey she punctures it with her fangs so that the young can come and suck the juices as they join her to feed. Sometimes she regurgitates her food so that they can feed directly from the mouth. Quite delightful.' Her voice carried beyond our table and I fear that a number of kippers were returned untasted that morning. Happily, her voice remains with us, for to read her is to hear her. The words sing off the page—succinct, informative and opinionated. What better?

Many people got to know Frances through her Juniper Hall courses for beginners. She was a fine teacher and her skills were constantly in demand by natural history groups and, no matter how busy, she always found time for them. She and John travelled widely and regularly attended international conferences. Such was her character that she soon made friends and was a fine ambassador for British arachnology.

Last winter, when her condition deteriorated, she attended hospital for dialysis. John arranged a rota of friends to transport her. On the first occasion that Vi and I collected her, we were alarmed at the beaten-down confused woman who was wheeled into the hospital waiting room. As the treatment progressed, she perked up and was almost back to her old self, although she retired to bed immediately she arrived home. Came the day when she changed to home dialysis and we collected her for the last time. We spoke a couple of times on the telephone. She seemed strong enough but was finding the treatment troublesome, aggravated by circulation problems. We suggested a visit, but the message from John was: 'Not yet, not just yet, I'll let you know.' In July he 'phoned to say come over and cheer her up. She was to return to hospital for some tests and we would take her home and stay for a meal and a chat. It was not to be. Either during or shortly after the tests she suffered a heart attack. She died on 20th July 1995.

When John went to register the death, the Registrar and he discussed her former occupation, where she had worked and so on. After some discussion, John said: 'I'll tell you what took up most of her time, what she loved doing and for what she is known internationally.' And so

the Registrar completed the certificate: 'Frances Mary Murphy, Arachnologist'.

Remarkably, the cremation was an idyllic occasion. Sunshine, standing room only, laughter before, during and after the service. The address, given by a cleric who was also a friend, was full of warmth and understanding. We in the main body of mourners packed the rear pews and gallery. Before us were close friends and relatives. In the front row sat John and immediate family. In front of us all, at the foot of the lectern, was *Pholcus phalangioides*. The congregation was complete.

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### Extracts from the Address given by David Agassiz at Frances's Funeral Service, 28th July 1995

Frances began life in the countryside and at an early age developed an interest in Natural History. Then, when she was seven, her mother committed suicide, having suffered head injuries in a riding accident the year before. None of us can know the effect of a trauma like that, but it is bound to be devastating and to affect emotional development.

Apart from her father, her chief support came from an aunt, Teresa Wrangham. Her education continued at boarding school and through reading. Reading was an enduring love and through it she deepened her understanding of the natural world, having a particular interest in astronomy. She went on to read mathematics at Bedford College [London], but her studies were interrupted by sickness. She quite thought she was going to die but, after the removal of one kidney, she recovered.

After graduating, she worked at Fairey Aviation where, in due course, she met John. Eventually, at a time when she was suffering from further ill health, the firm collapsed, to be taken over by another in the aviation industry which Frances, somewhat characteristically, described as 'The Merchants of Death'! Not liking them she only stayed a year.

It was then that her interest in spiders began. At first she wanted to photograph them and achieved some wonderful results, some of her pictures remaining imprinted on my mind to this day. In order to photograph them, she kept them in captivity, rearing them to maturity and in this field became quite expert, writing a book based on her experience. As well as the British Arachnological Society, she joined the British Entomological and Natural History Society (known in her home as the 'Bent Soc'!) to which she contributed very considerably, serving as Secretary in the 1980s and then being elected as its first and [so far] only woman President in 1989. Then, and in the following years, she devoted much effort to finding new premises for the Society, whose London lease was nearing its end.

That is a brief factual history—the bones—amidst which her personality flourished. Each of us may have known her in one or more of its stages. What we remember, I am sure, is her personality rather than its setting. Her strength of character, her outspokenness, her cutting remarks and her continual sense of humour and fun. Mathematics, aviation, and the world of hobbies are very masculine domains. For reasons I don't understand, the ratio of men to women is very unequal, at a guess as biased as 10:1. Despite some prejudice encountered, it did not daunt Frances: she held her own on all occasions and commanded the respect of others on equal terms.



Personally, I got to know her best on residential field meetings, where her presence was always a bonus. We pulled her leg mercilessly, but she always gave as good as she got. We would say that she was at a disadvantage, having eight legs for us to choose from, and to this day among many B.E. & N.H.S. members a 'murphy' is the name given to a spider, especially when its web is encountered instead of a lepidopterous spinning. Not everyone found her easy, with her acerbic wit and certain prejudice in favour of the intelligent and educated; but I never found her unkind or malicious behind those words uttered with that characteristic voice.

Each of us has many memories of Frances, and situations and exchanges with her. We've probably exchanged some before this service and may do so after. It would also be fitting to do so here and she would be glad to think of us smiling and joking . . . The person with the most memories stored away must be her husband John . . . [We] share with him, and with other close relatives, in their loss. She will leave an aching gap. . . . There are no short-cuts or bypasses around grief and bereavement: it is a long and lonely road . . . many here will want to walk beside you, John, as best we can in the long days and months and years ahead.

### Frances Murphy: Societies and Publications

Frances was an active member of some thirteen arachnological or natural history societies and clubs: the B.A.S. heads her list. She joined the Flatford Mill Spider Group in the latter part of 1962 and was a founder member of the B.A.S. on its inception in 1969, serving as a valued Council member for three years (1989–91). Frances contributed four items to the B.S.S.G. Bulletin, over a dozen to the B.A.S. Newsletter and published five papers in the Bulletin, two in other journals. Her two small books on keeping spiders and other land invertebrates in captivity are widely consulted, as is the section on this topic that she wrote for the *B.A.S. Members' Handbook*.

J.E.D.

### REQUEST FOR SPECIMENS

I have been examining two groups of *Theridion* spiders. The *mystaceum/melanurum* group (as I envisage it) contains seven species already described (the others being *betteni*, *canariense*, *carpathium*, *corcyraeum* and *semitinctum*); the previously unknown males of three of these have been tentatively identified. A further nine apparently unnamed species have been found, mostly from south-west Europe and the adjacent Atlantic islands. These all have a dark, heart-shaped mark on the carapace, and a white triangle on the venter (often reduced to a bar in the males). The genitalia are all similar to those of the well-known northern species.

Fifteen species of the *petraeum* group have been seen, ranging from Central Europe to North Africa. The majority of these appear to be undescribed. This group has varying carapace markings, but tends to have a thin median stripe and darkened edge; the venter always has a pair of white circles or triangles placed abreast behind

the epigastic furrow. The spinners are encircled by small white spots. The epigynes are oval in the larger species, often plugged; the palp is often globular, with a short conical patella.

I would be most grateful to see further specimens from anyone who has not already kindly let me examine their material, particularly if these are pairs which have been collected from the same web, or any material from Italy, south-east Europe or north Africa, or indeed anywhere else if they match the descriptions given above. It may be necessary to dissect the females, for which I would like the sender's permission.

In connection with these two groups, and out of sheer curiosity, I would also be interested in seeing **any** *Theridion* species from the areas mentioned, particularly if not one of the well-known species.

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### The Perils of Apomorphy: an Apologia

by A. F. Millidge

Horatio Nelson demanded of his captains that they should always steer towards the sound of gunfire. I must confess that my own inclination would have been to do the reverse, and it was therefore with some dismay that, during the course of a peaceful exploration of the Isles of the Linyphiidae, I found myself sailing into heavy gunfire from the mighty Cladists, who appeared to regard my modest excursion as an invasion of territory and an Act of War. Against these Goliaths, entrenched behind thick walls of apomorphy, and armed with the Great Book of Hennig, the Computer Maximus, and an unshakeable conviction of their own rectitude, I was but a small David, armed with no more than an unquenchable thirst for the truth and a firm conviction that Infallibility, though permitted in some religions, has no place whatsoever in Science.

I sought, and still seek, no quarrel with the Cladists. Nevertheless, it might be of interest, despite the risk of giving further offence, to set out my reservations on the reliability of cladistics as a tool for investigating family relationships in spiders: this is the main object of this brief apologia.

My doubts relate to two main areas: to a minor degree, the reliance placed on parsimony and, to a major degree, the problems involved in the selection of the 'synapomorphies' used in the calculation of the cladogram.

The well-known parsimony principle (Occam's Razor), used as a guide in the erection of hypotheses, does not of course guarantee that any hypothesis produced when following it will be 'correct': it may be falsified by errors in the data used or by the discovery of additional data. In the physical sciences, a hypothesis can usually easily be tested by observation and experiment, and amended or rejected if necessary. Such testing by observation and experiment is not possible for biological hypotheses on the origin and evolution of current families of soft-bodied animals such as spiders: we cannot travel back in time, to perhaps 150 million years ago, to observe the events, and the fossil record for the relevant period is almost non-existent. In addition, it may well be unsafe to assume that, as a general rule, evolution has followed routes which we today may regard as the most parsimonious.