WELCOME

We are very pleased to welcome the following new members who joined our Society in the latter half of 1987 and in the first quarter of this year: Mr R. D. G. Barrington (Shaftesbury), Mr R. N. Baxter (Ilford), Mr J. S. Bedford (Harrow), Mrs P. A Brooker (Stonehouse), Mr B. H. Charlton (Chelmsford), Mr E. G. Cook (Woodford Green), Ms S. Copper (Nottingham), Miss H. Corrigan (Paisley), Mr N. Cousins (Ely), Mr L. A. Cram (Winscombe), Mr R. L. D'Ayala (Henley-on-Thames), Mr G. W. Danahar (London), Mr R. J. L. Deane (Tewkesbury), Mrs L. Gregory (Bristol), Miss V. Hampson (Nottingham), Mr D. V. Johnson (Broughton), Dr D. V. Louis (Nottingham), Mr C. R. Parry (Stourbridge), Mr J. J. Radcliffe (Weston-super-Mare), Mr N. Sawyer (London), Mr J. D. Stanney (Stoke-on-Trent), Mr D. A. Stone (Sunderland), Mr E. L. Swann (Kings Lynn), Mr R. G. Sweeney (Charlwood), Mr J. K. Tanton (Paisley), Dr M. B. Usher (York), Miss E. J. Uszkiewicz (Stockport), Ms H. M. Wain (Bordon), Mr J. Wright (St Helens), Mr M. Alderweireldt (Gent, Belgium), Dr J. E. Barbosa (Lisbon, Portugal), Mr J. W. Berry (Indianapolis, U.S.A.), Mr M. Blasczyk (Milwaukee, U.S.A.), Mr J. C. A Burchsted (Austin, U.S.A.), Mr C. Craig (New Haven, U.S.A.), Dr R. N. Dimitrijevic (Belgrade, Yugoslavia), Mr G. Head (Princeton, U.S.A.), Mr J. P. Kim (Seoul, Korea), Mr S. Larcher (Washington D.C., U.S.A.), Mr F. Punzo (Tampa, U.S.A.), Mr J. Sandstrom (Uppsala, Sweden), Mr J. W Shultz (Columbus, U.S.A.) Mr D. Silva Davila (Lima, Peru), Mr L. K. Stein (Cincinnati, U.S.A.), Mr H. Stumpf (Rimpar, W. Germany), Mr A. Wolf (Dossenheim, W. Germany).

P. Merrett (President)

BOOK REVIEWS

A RESTUDY OF THE FOSSIL SCORPIONIDA OF THE WORLD
by Erik N. Kjellesvig-Waering

287 pages, 114 figures and 18 plates. 28 × 21.5cm. *Palaeontographica Americana* No. 55 (available from the Paleontological Research Institution at 1259, Trumansburg Road, ITHACA, New York 14850, U.S.A.). 1986. U.S. $60.50 inclusive. ISBN 0-87710-401-8.

The late Erik N. Kjellesvig-Waering (1912-1979) was well known for his work on eurypterids and scorpions. His last monograph appears posthumously, having been organised for publication by his friends Anneliese and Kenneth Caster.

Our knowledge of the fossil scorpions is based on fragmentary, sometimes inaccurate, and often outdated information. For years, Kjellesvig-Waering had been preparing a great revision, continuing along the pathways established by Wills, Størmer, and others. He examined all the available types from Europe and the U.S.A. and the result is a massive taxonomic work covering 90 species (from Silurian to Miocene), 64 genera, 48 families and 21 superfamilies of fossil scorpions. 33 new species, 30 new genera and 34 new families are described; the classification of the entire order is revised with infraorders established and suborders redetermined.

Kjellesvig-Waering has clearly demonstrated for the first time that the majority of Palaeozoic scorpions had true **gills,** hidden under abdominal plates, on **five** sclerites. A few forms that had lungs with stigmata have existed since Carboniferous times. Remembering that modern scorpions have **four** sclerites bearing lungs, it becomes clear that the first segment was eliminated, fusing with a pectinal one: this is confirmed by the presence of a superfluous pair of angiomeres of a first lung segment in modern scorpions. However, I question Kjellesvig-Waering's concept of non-homology of fossil gills and abdominal plates to more advanced forms with reduced ones) should be read the other way round. Evidently fossil scorpions had several evolutionary lines, each one independently elaborating respiratory mechanisms for amphibiotic life, as in modern crabs.

Kjellesvig-Waering suggests that all scorpions, fossil and modern, have seven tergal somites in the mesosoma, not eight or even nine, as Petrunkevitch and Dubinin supposed. He states that a prepectinal segment is present both in fossil and modern scorpions, but perhaps it is only a reduced part of the genital segment.

Concerning segmentation, it must be noted that fossil eurypterids (with fused genital, pectinal and first gill segments) are even more advanced in oligomerisation of segments than are scorpions. Kjellesvig-Waering also shows that fossil scorpions possessed lateral compound eyes of the eurypterid type; modern scorpions have only rudimentary visual organs in the form of one to five pairs of lateral ocelli. So, Eurypterida and Scorpionida must be more closely-related sister-groups than hitherto supposed.

Kjellesvig-Waering has clearly demonstrated that the modern scorpion fauna, with 9 families and about 1,000 species, is just a fragment of the former Palaeozoic diversity of an advanced aquatic or amphibiotic group, that survived to the present day owing to its elaboration of lungs and expansion on to land. This monograph will be of great interest to all who study arthropod morphology and evolution, especially in the arachnids.

V.Y. Fet, Syunt Khassardagh State Reserve, KARA KALA, 745162, U.S.S.R.

HOW TO BEGIN THE STUDY OF SPIDERS
By J. L. Cloudsley-Thompson

34 pages. 20.6 × 14.8cm. Paperback and hardback. Richmond Publishing Company (in conjunction with the British Naturalists' Association), Richmond, Surrey, 1987. £1.99 paperback; £8.00 cased. ISBN 0-85546-230-2 & 0-85546-2337 respectively.

This booklet is said to be designed for the interested amateur and also to provide course material for the G.C.S.E. It cannot be recommended for either of these purposes. How on earth did our past President, Professor John Cloudsley-Thompson, come to put his name to this publication? To begin with, the picture on the cover is not, as stated, a *Tegenaria*, but a rather poor photograph of *Meta menardi* printed upside-down. Although we had great fun working this out, it was a bad beginning!

Among the more obvious mistakes are the following. On p.4 we read that 'the prosoma bears the eyes, usually six, sometimes eight'; actually most spiders have eight eyes, some have six. On p.9, Mygalomorphae form a sub-order of the spiders, not a sub-class. On p.12, most spiders, but not **all,** have poison glands (e.g. uloborids have no poison glands). On p.19, identification from external genitalia is not possible for those females that do not have them. On p.21, it is pisaurids, not wolf-spiders, which carry their cocoons in their jaws. On p.32, the webs of *Meta* spp. have open hubs, those of *Zygiella* do not.

By way of general comments, I make the following. I would not advise carrying alcohol in corked tubes: using reliable plastic closures prevents evaporation and stops one smelling like a distillery! Levering up bark with a screwdriver is unnecessary and rather improper. I do