The spider family Ochyroceratidae new to the United States

William A. Shear
Department of Biology,
Hampden-Sydney College,
Hampden-Sydney, Va. 23943 USA

The family Ochyroceratidae was set up by Fage (1912) for a group of species from the world tropics, many of which were described by Simon and others in a number of families. The species included are clearly related to each other, but whether or not the group requires the status of a family is open to question.

About a dozen species of ochyroceratids have been recorded from the western hemisphere, but the more recent reports of species from Mexico and the West Indies are of most interest here. Petrunkevitch (1929) reported Theotima radiata Simon from Puerto Rico, but there are numerous differences, particularly in size and proportions, between the animals he described and those described by Simon (1891) and from Cuba by Fage (1929). Petrunkevitch's description suggests that his specimen, a female, was immature, or that it represented a different species. In the same paper, Petrunkevitch described a new species, Oonopinus minutissimus (Oonopidae), also from Puerto Rico. This species is obviously an ochyroceratid, not an oonopid, and it probably belongs in Theotima. It may represent mature material of what Petrunkevitch called T. radiata.

Bryant (1940) recorded *O. minutissimus* from Cuba; her specimen was a male. The drawing of the palpus she presented was clearly that of a species of *Theotima*, but since Petrunkevitch's holotype was a female, the correct species name remains in doubt.

Gertsch (1973) has described two species of ochyroceratids from Mexico and Central America. One, *Theotima pura* Gertsch, is an eyeless troglobite from Cueva de los Vampiros, in Tamaulipas, while the other, *Ochyrocera formosa* Gertsch, comes from a cave in Guatemala. Yet another species of *Theotima* was recorded, but not described, from a cave in Belize (Gertsch, 1973). Brignoli (1974) has described *Ochyrocera fagei* from Chiapas.

Ochyroceratids have also been found on the surface in Mexico, as inhabitants of the leaf litter. Several specimens of an undescribed *Theotima* species are in the American Museum of Natural History, having been collected near Ocosingo, Chiapas, by C. G. Goodnight.

Brignoli (1973) and Gertsch (1973) have independently concluded that a few species from western North America, placed in the genera Ochyrocera and Usofila, are not ochyroceratids at all but are instead members of the Old World family Telemidae. I recently examined many newly collected specimens of Usofila from Oregon and concur with Gertsch and Brignoli (these specimens were collected by Ms E. M. Benedict, Portland State University, Portland, Oregon, USA, and are in the AMNH). It is worth noting that Gertsch (1973) has described an eyeless telemid (Telema mayana Gertsch) from a cave in Guatemala.

Biologically, de Barros Machado (1964) has demonstrated that several African species of *Theotima* are parthenogenic. Too few specimens have been collected in other parts of the world to state anything with certainty about them. In addition, some *Theotima* species females are peculiar in that the copulatory openings of the epigyna are located in dorsal, hornlike protuberances of the abdomen, or in sclerotized grooves on the sides of the abdomen. All known species of ochyroceratids appear to be inhabitants of the deep litter of the forest, or are troglobitic. Considerable detail on the ecology and life history of the African species is given by de Barros Machado (1951).

Six specimens of an undoubted species of Theotima appeared in Berlese residues from the Florida Keys sent to me a few years ago by Dr Stewart B. Peck, Carlton University, Ottawa, Canada. They came from mixed hardwood and palm litter collected on Upper Matacumbe Key; near Islamadora, on Key Vaca near Marathon, and on Big Pine Key, in Watson Hammock. All collections were made between 4 and 8 August, 1971. Two other specimens, both females, were found in the sample from Upper Matacumbe Key, which conform to Petrunkevitch's 1929 description of Oonopinus minutissimus. Thus two species of ochyroceratid have now been found within the boundaries of the United States. The first-mentioned species has the peculiar epigynum mentioned above the copulatory openings are in lateral sclerotized grooves.

Rather than attaching names to these two species without a complete study of the New World ochyroceratids, I have placed the specimens in the American Museum of Natural History to await a definitive revision by an enterprising arachnologist who has access to the scattered type material of the various described species. The purpose of this note is only to call attention to a spider family, genuine members of which have not previously been reported from the United States.

References

- BRIGNOLI, P. M. 1973: I Telemidae, una famiglia di ragni nuova per el continente Americano (Araneae). Fragm. ent. 7(5): 247-263.
- BRIGNOLI, P. M. 1974: Notes on spiders, mainly cavedwelling, of southern Mexico and Guatemala. *In Subterranean Fauna of Mexico*, Part II, ed. V. Sbordoni. *Quad.Acc.Naz.Lincei* 171(2): 195-238.

- BRYANT, E. B. 1940: Cuban spiders in the Museum of Comparative Zoology. *Bull.Mus.comp.Zool.Harv*. 86(7): 249-532. 22 plates.
- FAGE, L. 1912: Biospeleologica XXV. Études sur les araignées cavernicoles. I. Revision des Ochyroceratidae (n.fam.). Archs. Zool. exp. gén. 5^e Sér. 10: 97-162, plates IV-XII.
- FAGE, L. 1929: Sur quelques araignées des grottes de l'Amerique du Nord et de Cuba. Boll. Lab. Zool. gen. agr. R. Scuola Agric. Portici 22: 181-187.
- GERTSCH, W. J. 1973: A report on cave spiders from Mexico and Central America. Assoc. Mex. Cave Studies Bull. 5: 141-164.
- MACHADO, A. de BARROS, 1951: Ochyroceratidae (Araneae) de l'Angola. Publçoes cult.Co.Diam.Angola 8: 5-88.
- MACHADO, A. de BARROS, 1964: Sur l'existance di la parthénogenèse dans quelque especes d'Araignées Ochyrocératides. C.r.hebd.Séanc.Acad.Sçi., Paris 258: 5056-5059.
- PETRUNKEVITCH, A. 1929: The spiders of Puerto Rico, Part One. Trans. Conn. Acad. Arts Sci. 30: 1-158.
- SIMON, E. 1891: Voyage de M. E. Simon au Venezuela, 21^e memoire. Arachnides. Annls.Soc.ent.Fr. 1891: 438-449, plate 9.