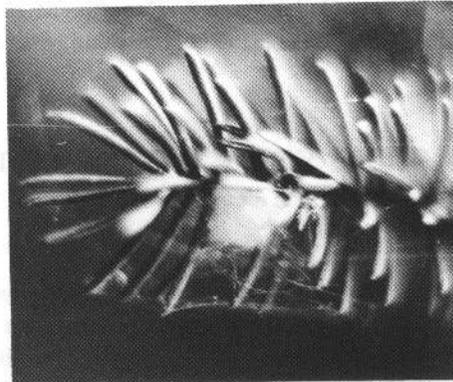


**THE EGG SAC OF *PITYOHYPHANTES COSTATUS* (HENTZ)  
(ARANEAE, LINYPHIIDAE) AND ITS PHORID PARASITE**

Egg sacs of *Pityohyphantes costatus* (Hentz) were found in early July (1973) in a stand of replanted white spruce, *Picea glauca* (Moench.), in Ste. Anne de Bellevue, Quebec, during the course of a study on another linyphiid species. They were located towards the apex of branchlets, between the bases of the needles (Fig. 1), protected externally by a loose network of threads. The egg sac is white and globular and about 6 mm in diameter. It is composed of crinkled flocculent silk and, within it, the pale whitish eggs freely roll about. A description of the egg sac also appears in Kaston (1948).

Fig. 1.—Egg sac of *Pityohyphantes costatus* (Hentz).



The phorid, *Phalacrotophora (P.) epeirae* (Brues), a larval egg predator, was reared from an egg sac of *P. costatus*, and larvae and puparia were obtained from two more. No attempt was made to determine the level of parasitism in the population. This appears to be the first record of *P. epeirae* parasitizing egg sacs of *P. costatus*. The phorid, also known at one time under the generic name of *Megaselia* Rondani (*vide* Clausen 1940) and its emendation *Megaselida* (*vide* Kaston 1937), was originally reared and described (under the genus *Phora* Latreille and later transferred to *Aphiochaeta* Brues) from egg sacs of *Nuctenea* (= *Epeira*) sp. (Brues 1902, 1903). Subsequently, Auten (1925) reared it from egg sacs of *Nuctenea* (= *Epeira*) *sclopetaria* (Clerck), Jones (1940) from egg sacs of *Phidippus audax* (Hentz), and Muma and Stone (1971) from egg sacs of *Gasteracantha cancriformis* (Linnaeus) in which species an overall level of parasitism of 43.7 per cent was observed. In addition, Saba (1970) reported that it parasitized cultured pupae of the chrysomelid beetle *Diabrotica balteata* LeConte, on whose eggs the larvae also fed.

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LITERATURE CITED

- Auten, M. 1925. Insects associated with spider nests. *Ann. Entomol. Soc. Amer.*, 18:240-250.  
 Brues, C. T. 1902. Notes on the larvae of some Texan Diptera. *Psyche*, 9:351-354.  
 Brues, C. T. 1903. A monograph of the North American Phoridae. *Trans. Amer. Entomol. Soc.*, 29:331-404 + 5 pl.  
 Clausen, C. P. 1940. *Entomophagous insects*. McGraw-Hill Book Company, Inc., New York, X + 688 pp.  
 Jones, S. E. 1940. An annotated list of the spiders of an East Central Illinois forest (Wm. Trelease Woods, University of Illinois). *Trans. Illinois Acad. Sci.*, 33(2):216-220.

- Kaston, B. J. 1937. Dipterous parasites of spider egg sacs. Bull. Brooklyn Entomol. Soc., 32(4):160-165.
- Kaston, B. J. 1948. Spiders of Connecticut. Bull. Connecticut State Geol. Nat. Hist. Surv., 70:874 pp.
- Muma, M. H. and K. J. Stone. 1971. Predation of *Gasteracantha cancriformis* (Arachnidae [sic]: Araneidae) eggs in Florida citrus groves by *Phalacrotophora epeirae* (Insecta: Phoridae) and *Arachnophaga ferruginea* (Insecta: Eupelmidae). Florida Entomol., 54(4):305-310.
- Saba, F. 1970. Parasites, predators, and diseases in a rearing culture of *Diabrotica balteata*. J. Econ. Entomol., 63(5):1674.

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