

## *Crossopriza lyoni* and *Smeringopus pallidus*: cellar spiders new to Florida (Araneae: Pholcidae)<sup>1</sup>

G. B. Edwards<sup>2</sup>

**INTRODUCTION:** A variety of synanthropic spiders (species which occur primarily around human habitations), native and exotic, occur in Florida (e.g., Edwards 1979a, b, 1983, 1985). However, the potential for acquiring additional subtropical or tropical species is ever present. Their small size and close association with humans provide ample opportunities for such species to be transported. Two such apparent recent introductions are *Crossopriza lyoni* (Blackwall) and *Smeringopus pallidus* (Blackwall), members of the cellar spider family (Pholcidae). More familiar members of this family include the long-bodied cellar spider, *Pholcus phalangioides* (Fuesslin) and the short-bodied cellar spider, *Spermophora meridionalis* Hentz (Kaston 1948), both found in Florida. These spiders often build webs in cellars in more northern states, hence their common name. Although cellars are infrequently built in Florida, cellar spiders are able to find suitable accommodations in, on, or under an assortment of man-made structures.

Both *C. lyoni* and *S. pallidus* occur in Southeast Asia (Yaginuma 1986). *Crossopriza lyoni* is probably native to that area, although both species have been inadvertently introduced by man to many tropical and some temperate parts of the world. *Crossopriza lyoni* was first reported in the United States (as *C. stridulans* Millot) from Texas and Louisiana (Roth 1985). The first known Florida record is from Orange Heights in eastern Alachua County, collected 15 August 1984 by G. B. Edwards and K. Vijayalakshmi. Several specimens of both sexes, including females with eggs, were taken from a well-established population under the eave of a shed attached to a barn. J. F. Anderson subsequently captured two males and two females with eggs, on 16 December 1988, from the ground floor of a building on the University of Florida campus in Gainesville in a vending machine area. Until recently, these were the only Florida records in the Florida State Collection of Arthropods (FSCA) museum. On 25 September 1993, R. R. Jackson and G. B. Edwards collected one specimen from a population of several females noticed on the upper edge of the front window of a store in McIntosh (Marion County).

Roth (1985) reported *S. pallidus* (as *S. elongatus* (Vinson)) to occur in Texas and Florida, although he did not give specific locality records. The only FSCA record of this species was of one male, two females, and one juvenile from Gifford (Indian River County), collected 23 April 1991 by K. Hibbard and K. Dady from assorted dead wood at a dump site. This also is a man-made situation, and the number of specimens collected indicates that a viable population is probably established.

It is unknown how these two pholcid species were introduced into Florida. Since both species are known to occur in Texas, and *C. lyoni* also occurs in Louisiana, it is possible that both species simply migrated, either naturally or by human transport in commercial goods or household belongings, along the Gulf Coast. Another speculation would be that both species were brought to the United States from Southeast Asia during the Vietnam War, in the 1960's or 1970's.

**DESCRIPTION:** *Crossopriza lyoni* (Fig. 1) females are 3-7 mm in length; males (Fig. 2) are slightly smaller at 2.5-6 mm in length. Both sexes have extremely long legs, although males' legs are somewhat longer. The leg I of a larger male may be nearly 6 cm (2 3/8") in length. The abdomen in lateral view has a flattened, triangular appearance, with the caudal end tapering to a point. The color of the cephalothorax is pale amber, with a brown median dorsal depression on the carapace. The legs are a similar amber color, but with many small brown spots, brown patellae, and white rings on the distal edges of the femora and tibiae. The abdomen is gray with white lateral stripes; a more or less irregular dark ventral stripe runs from the sternum to the cauda. The posterior lateral corners of the carapace have triangular picks that match file plates on the anterior corners of the abdomen, forming stridulatory organs that are unique to this genus. These sound-producing structures are more prominent in females.

<sup>1</sup> Contribution No. 793, Bureau of Entomology, Nematology and Plant Pathology - Entomology Section.

<sup>2</sup> Taxonomic Entomologist, Florida State Collection of Arthropods, Division of Plant Industry, P.O. Box 147100, Gainesville, FL 32614-7100

A female carries her eggs in her chelicerae. The eggs are formed into a ball held together by only a few silken threads forming a very flimsy eggsac. Three eggsacs in the FSCA contained 53, 54, and 58 eggs, respectively.

*Smeringopus pallidus* is about the same size as *C. lyoni*, but the abdomen is more cylindrical and elongate. The cephalothorax is similar to *C. lyoni*, except the carapace has in addition to the brown median depression, two pair of brown spots, an irregular submarginal band, and two vertical stripes on the face. A dark ventral stripe is also present in *S. pallidus*. The legs have similar white rings but have few brown spots (at joints), and the patellae are amber. A color pattern of paired purplish spots is present dorsally the entire abdominal length, both centrally and laterally. This color pattern easily distinguishes this species from similar synanthropic pholcids.

**BIOLOGY:** Nandi and Raut (1985) reported *C. lyoni* adults could feed on 12-20 mosquitoes (*Aedes* sp.) per day. Little else is known about the biology of either *C. lyoni* or *S. pallidus*. Both make irregular cobwebs typical of other common pholcids. The spider hangs upside-down underneath the most dense part of the web. Webs are usually made in places that are sheltered; only occasionally will they be a nuisance. Adults of both species are probably present throughout the year in warmer climates where they occur. No pholcids are known to be dangerously venomous to humans. Control of these spiders is rarely warranted.

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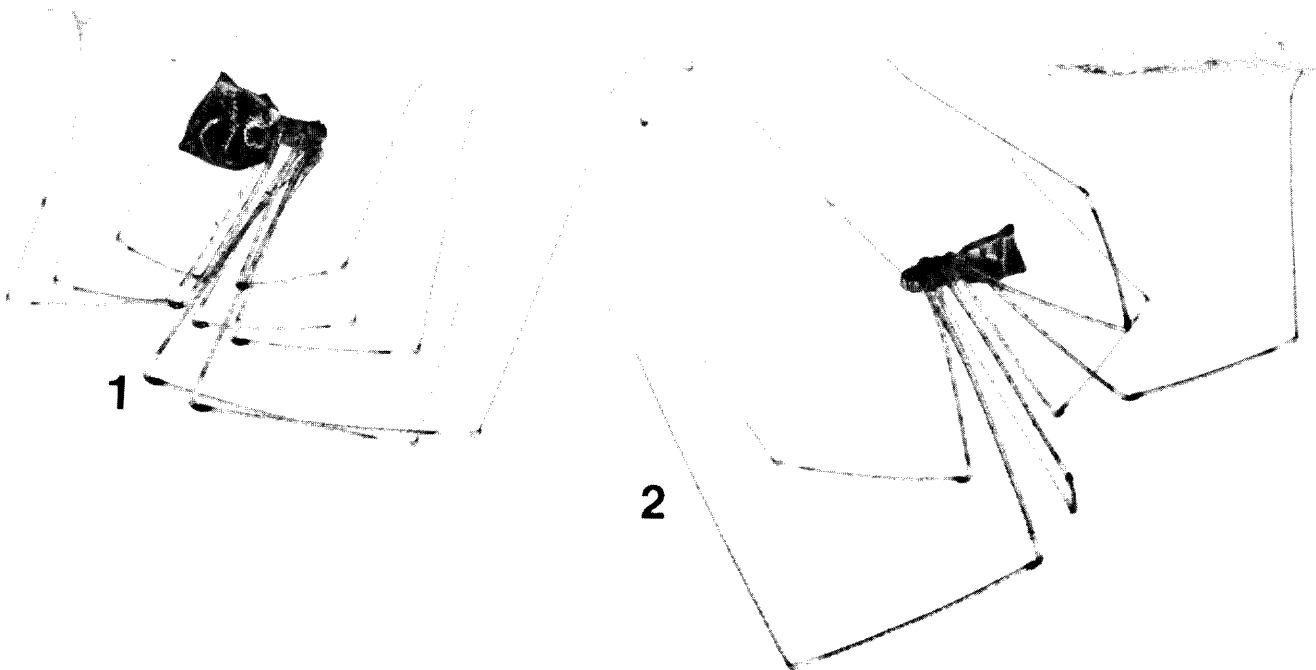


Fig. 1. *C. lyoni* female, 2.5X. Fig. 2. *C. lyoni* male, 2.5X. Photography credit: Jeffrey W. Lotz (DPI #94010).