



Description of the imago of *Meridialaris spina* Pescador & Peters 1987 (Insecta: Ephemeroptera)

PABLO PESSACQ

CONICET, Laboratorio de Investigaciones en Ecología y Sistemática Animal (LIESA), Universidad Nacional de la Patagonia San Juan Bosco, Sarmiento 849, 9200. Esquel, Chubut, Argentina. E-mail: pablopessacq@yahoo.com.ar

The genus *Meridialaris* Peter & Edmunds, 1972 (Ephemeroptera: Leptophlebiidae) was established to include all South American *Deleatidium* Eaton, 1884 (Peter & Edmunds 1972). The only exception was *D. vittatum* Thew, 1960, a species described from Brazil and latter synonymized with *Ulmeritoides haarupi* (Esben-Petersen, 1912) by Peters *et al.* (2005). As the type species of the genus, Peters and Edmunds (1972) designated *M. laminata* (Ulmer, 1920). Pescador & Peters (1987) described three new species and synonymized other two.

Except for *M. tintinabula* Pescador & Peters, 1987, found in northern Argentina at high altitude, the remaining species are only represented in Southern Argentina and Chile (Domínguez 1998; Domínguez *et al.* 2006; Pessacq 2009). The genus is currently composed of the following species: *M. biobionica* (Ulmer, 1938), *M. chiloeense* (Demoulin 1955a), *M. diguillina* (Demoulin, 1955b), *M. inflata* Pescador & Peters, 1987, *M. laminata*, *M. patagonica* (Lestage, 1931), *M. spina* Pescador & Peters, 1987 and *M. tintinabula*. Of these species, *M. inflata* is only known from the male imago, *M. spina* from the nymph and *M. patagonica* from the female, but this last species is impossible to identify with confidence (Pescador & Peters 1987). The remaining species are known from all stages.

Sampling sites were visited in several occasions in 2005, 2006 and 2008. The nymphs were collected with D-Frame aquatic nets. The adults were collected with Malaise traps. About 15 nymphs were reared in laboratory, using one small bucket filled with water and rocks from the collection site and provided with aerators. When subimagos emerged, they were carefully transported to individual cages for the final molting.

The stream where the specimens were collected flows through a pine tree plantation (*Pinus contorta*), with patches of native vegetation (*Notophagus dombeyi*, *Fuxia* sp., *Chusquea* sp., *Austrocedrus chilensis*) on its margin. It has between 0.7-2 meters width and 5-30 cm depth. Water temperature ranged between 4.7–12 °C and ph between 7.3–7.75.

Drawings were made with the aid of a camera lucida coupled to a Leika DMLB microscope.

All specimens are deposited in the “Laboratorio de Investigaciones en Ecología y Sistemática Animal” (LIESA, Chubut province, Argentina) and Florida A.M. University (FAMU, Florida State, United States of America) collections.

Meridialaris spina Pescador & Peters 1987

(Figs 1–8)

Meridialaris spina Pescador & Peters 1987: 174; Hubbard *et al.* 1992; Domínguez *et al.* 1994: 56; Domínguez *et al.* 2006; Pessacq 2009: 156.

Specimens examined. Nine nymphs, Argentina, Chubut province, unnamed stream, 500 m before Epuyen Lake, access road to Puerto Patriada, 42°08'17" S 71°31'56" W, 5/3/05, Di Prinzi leg. Three nymphs, same data except 12/5/05. Four nymphs, same data except 3/20/06. 32 nymphs, same data except 11/16/08, Pessacq leg. Three ♂ and two ♀ imagos, same data except, Malaise trap 12/2–16/08. One ♂ imago + exuvia, same data except, 12/9/08, emerged at laboratory 12/13/08. Two ♂ imagos + exuvia, same data except, 12/16/08, emerged at laboratory 12/16/08.

Male imago: measurements (mm, n=5): total length: 8.4–9.2 (8.8 ± 0.4), fore wing: 8.9–9.8 (9.5 ± 0.42).

Head: dark brown; antennae brown; ocelli whitish; upper portion of eyes light brown and lower portion black.

Thorax: nota dark brown; pleura light brown with irregular darker areas; sterna dark brown. Forewing (Fig. 1) membrane hyaline; longitudinal veins light brown, transversal cross veins lighter than longitudinal ones; costal cross veins and veins between Sc and R1 barely visible; pterostigma cloudy white; ICu₁ slightly divergent from CuA; fourteen