

First population of the spiny-cheek crayfish *Orconectes limosus* introduced to the Iberian Peninsula

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Introduction

The spiny-cheek crayfish, *Orconectes limosus* (Rafinesque 1817) [Crustacea: Decapoda: Cambaridae], is a crayfish native of North America, widely distributed on the Atlantic watersheds. The spiny-cheek crayfish was the first non-indigenous crayfish to be intentionally introduced into Europe from the United States (Hamr 2002; Holdich 2002). After its first European introduction into Germany in 1890, secondary introductions were made, and nowadays it is widely present in many European countries, from England to Hungary and from France to Lithuania (Hamr 2002; Holdich and Black 2007).

However, until now, the species had not been detected in the Iberian Peninsula (Holdich and Black 2007; García-Berthou et al. 2007; Adams et al. 2010). The presence of this exotic species might be a further problem to the native white-clawed crayfish (*Austropotamobius pallipes*), because the spiny-cheek crayfish may live in a wide range of habitats and acts as a vector of crayfish plague (*Aphanomyces astaci*), like other North American crayfish (Vey et al. 1983).

Detection and Distribution

This is the first record of the spiny-cheek crayfish, *Orconectes limosus* (Rafinesque, 1817), introduced into the Iberian Peninsula. Sixteen individuals of this crayfish species were detected in the Muga River, near to the Boadella Reservoir (Catalonia, NE Iberian Peninsula) on October 9, 2010 (Figure 1). This reservoir is only 14 km away from France, where the spiny-cheek crayfish was introduced during the 20th century.

Within the **Life Potamofauna** we have sampled, with nocturnal transects, all reservoir and affluents. This recent study confirms that *Orconectes limosus* is distributed and established in all parts of the reservoir. Fortunately, we have not detected individuals of *Orconectes limosus* upstream, in the tributaries streams coming into the reservoir, where there are populations of *Austropotamobius pallipes*.

The future works will be focused on:

- 1) to sample downstream the reservoir to detect if the exotic species are present.
- 2) to avoid the acces of *Orconectes limosus* upstream the affluents from the reservoir.

Figure 1. *Orconectes limosus* specimen from the Muga River (Iberian Peninsula) collected on 9 October 2010.



Figure 2. Map of the study area with a circle showing the site location of *Orconectes limosus* in the Muga River basin, near to the Boadella Reservoir (42°20'N, 2°49'E). The main towns and other rivers in the vicinity are also shown.

