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New distribution record of (Decapoda:Aeglidae) in the Mataquito Basin, Maule Region, Chile

Nueva localidad de distribución de *Aegla pewenchae* (Decapoda:Aeglidae) en la cuenca del Mataquito, Región del Maule, Chile

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RESUMEN.

Se registra por primera vez la presencia de *Aegla pewenchae* Jara, 1994 en la cuenca del río Mataquito, Región del Maule, Chile. Esta especie, endémica de la zona centro-sur del país, había sido descrita previamente con distribución entre el río Chimbarongo (Región de O'Higgins) y el río Toltén (Región de La Araucanía). El hallazgo en nuevos cuerpos de agua de la cuenca del Mataquito extiende su rango conocido y abre oportunidades para el estudio de su ecología, dinámica poblacional y conservación. Los ejemplares fueron recolectados en el estero Guaiquillo, río Lontué y canales de regadío agrícolas en las cercanías urbanas de Curicó.

Palabras claves: Aeglidae, Crustacea, distribución, endemismo, Chile.

ABSTRACT.

We report the first record of *Aegla pewenchae* Jara, 1994 in the Mataquito River basin, Maule Region, Chile. This species, endemic to central-southern Chile, had previously been described as distributed between the Chimbarongo River (O'Higgins Region) and the Toltén River (Araucanía Region). The new findings in Mataquito basin water bodies extend its known range and provide opportunities to study its ecology, population dynamics, and conservation status. Specimens were collected in Guaiquillo Stream, Lontué River, and agricultural irrigation canals near the urban area of Curicó.

Keywords: Aeglidae, Crustacea, distribution, endemism, Chile.

INTRODUCTION

The genus *Aegla* represents a group of freshwater crustaceans exhibiting high levels of endemism in South America (Bond-Buckup & Buckup, 1994; Rocha *et al.*, 2010). It was first described by William Elford Leach in 1820 and subsequently studied in detail by Waldo L. Schmitt. The current distribution of *Aegla* reflects a Gondwanan origin, with both fossil and extant records indicating the colonization of freshwater systems from the Atlantic approximately 60–90 million years ago (Perez-Losada *et al*., 2002). In Chile, at least 21 species and subspecies of the genus have been documented (Bahamonde & López, 1961). Within the Maule Region, Jara, 1994 had previously been reported from rivers in the Maule basin; however, no records existed for the Mataquito basin. This study reports six new localities within this basin, thereby expanding the known distribution of the species.

Specimens were identified through comparative anatomical analysis of external characters, following previously published taxonomic descriptions of Chilean Aeglidae species. Sampling was conducted at six sites: the Teno and Lontué Rivers, Guaiquillo Stream, the urban wetland Las Vertientes, and two irrigation channels (Villa Galilea and Convento Viejo, Curicó). The rivers and stream exhibit a nivo-fluvial hydrological regime, whereas the channels are groundwater-fed with seasonal flow fluctuations.

The specimens exhibited considerable chromatic variation, predominantly green and brown hues, with orange to reddish appendages observed in sexually mature individuals. Pronounced sexual dimorphism was evident (Petriella & Boschi, 1997): males displayed asymmetric chelipeds, absent pleopods, and a more robust propodus, whereas females presented a more developed abdomen and functional pleopods. Behavioral observations indicated male territoriality during the warmer months. Species identification was confirmed as *A. pewenchae* based on the diagnostic criteria described by Jara (1994).

This record extends the known distribution of *A. pewenchae* to the Mataquito River basin, confirming its presence in previously unreported freshwater systems and emphasizing the need for studies on its local ecology and conservation status. Aeglids are sensitive to environmental disturbances and may serve as bioindicators of water quality (Rocha *et al*., 2010). We recommend population, genetic, and conservation assessments to evaluate the species' vulnerability to pollution and anthropogenic pressures in the region.

The discovery of *A. pewenchae* in the Mataquito basin constitutes a novel distributional record, effectively expanding the species' geographic range. These findings are pertinent for future research on the ecology, conservation, and biogeography of aeglids in Chile.

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