



## **FIRST RECORD OF THE GOLDEN MUSSEL (*LIMNOPERNA FORTUNEI* - DUNKER, 1857) IN THE PAJEÚ RIVER WATERSHED – BRAZIL**

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*Limnoperna fortunei* (Dunker, 1857) is an invasive bivalve of Asian origin that has widely expanded across South American river basins, causing significant ecological and socioeconomic impacts. In Brazil, its spread has been strongly associated with artificial hydrological connectivity. This study reports the first record of *L. fortunei* in the Pajeú River basin, Pernambuco State, northeastern Brazil, an area influenced by the São Francisco River Integration Project (PISF). Samplings were conducted in 2022, 2023, and 2025 in four reservoirs within the Pajeú River basin. The species was recorded exclusively in the Barra do Juá reservoir, which receives transposed waters from the PISF Eastern Axis. The first detection of the invasive species occurred in 2023, when individuals were observed only as incrustations on boats, with no records from samples obtained by dredging, indicating an incidental presence. In May 2025, sampling at 15 sites distributed along the littoral zone revealed the species in five sites within the Barra do Juá reservoir, exhibiting an aggregated distribution pattern consistent with population establishment. The occurrence was associated with gravel-dominated sediments, clear and well-oxygenated waters ( $>7.0$  mg/L), and water temperatures exceeding 28 °C. The recent expansion and establishment observed in the reservoir suggest a strong link with the transposition of waters from the São Francisco River. Given the species' high dispersal potential and the proximity to other hydrographic basins, immediate monitoring



and management actions are recommended to prevent further spread and mitigate potential impacts on semi-arid aquatic ecosystems. Future studies may integrate environmental suitability modeling to identify areas at risk and support preventive planning for the species' expansion into other basins.

**Keywords:** *Bivalves; Biological Invasion; Interbasin Connectivity.*

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