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The occurrence of the invasive foraminifera *Trochammina hadai* (Uchio) in Ubatuba, SP, Brazil

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The estuarine foraminifera *Trochammina hadai* (Uchio) from Japan was first identified as an invasive species in sediments of San Francisco Bay in 1995. Later it was determined that it first appeared in that bay in 1983, comprising 1.5% of the fauna. However, by 2000, the taxon had been found in 96% of the samples from brackish and marine waters. The proliferation of *T. hadai* in San Francisco Bay is associated with a decline in relative abundance of one of the most common foraminifera, *Elphidium excavatum*. The sharp decline of *E. excavatum* suggests the arrival and proliferation of this species has profoundly influenced the native foraminiferal fauna. The impact *T. hadai* has had on the microfauna of San Francisco Bay prompted us to investigate other environments outside the US. We began examining foraminiferal distributions to observe populational dynamics and geo-and microhabitats from eighteen sediment surface samples in a small harbor in Saco da Ribeira, Ubatuba, Sao Paulo, Brazil. Previous studies show that this species was not found before 2005. However, samples collected in 2014 provided us with the opportunity to document the existence of *T. hadai* in at least 80% of the sampled area, which were found alive in the majority of the samples. Following this finding, we intend to investigate when and how this species first arrived in Brazil, if it has expanded in other estuarine and coastal zones and how it is impacting the native fauna.

Biography

Patrícia P B Eichler has completed her PhD from São Paulo University in Biological Oceanography and her Post-doctoral studies were done in the Geological Survey and in the College of Earth, Ocean, and Environment of Delaware University (USA) and in the University of Kiel, CAU, Germany. She is a researcher in two universities in Brazil (Unisul and UFRN) and her expertise is on foraminifera of recent and paleo-environments of reefs, estuaries, mangroves, rivers, marine shelves and deep-ocean. She has published 25 papers in reputed journals and has been reviewing papers in international magazines.

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