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Title: **Geographic distribution and predatory impact of the ctenophore *Mnemiopsis leidyi*: a potential threat to the fisheries and planktonic ecosystems from Brazilian coast?**

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GEOGRAPHIC DISTRIBUTION AND PREDATORY IMPACT OF THE CTENOPHORE *Mnemiopsis leidyi*: A POTENTIAL THREAT TO THE FISHERIES AND PLANKTONIC ECOSYSTEMS FROM BRAZILIAN COAST?

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ABSTRACT

The ctenophore *Mnemiopsis leidyi* A. Agassiz, 1865 is an important predator of the planktonic food chains, feeding mainly on carcinoplankton and on fish larvae and eggs. Originally distributed along the American Atlantic coast, the species was introduced into the Black Sea at the early 1980's and expanded its distribution to Azov and Caspian seas at 1990's, performing a massive predation on the fish stocks of these areas. Recently, the occurrence of the species was reported to the North and Baltic seas, apparently in a rapidly increasing abundance. The ecological impact of the species in these areas led to inquiry about the potential predatory impact of *M. leidyi* in the Brazilian coast.

To estimate the distribution and abundance of the species in southeastern Brazilian coast, the occurrence of *M. leidyi* in the São Sebastião Channel, São Paulo, from 2003-2006 and collected specimens in estuarine areas from Rio de Janeiro, Paraná, and Santa Catarina was monitored.

Adult specimens were observed in the São Sebastião Channel all over the year. Juvenile were abundant in the estuarine areas. The specimens' abundance in the samplings was lower than that registered for the non American areas. The presence of natural *M. leidyi* predators in Brazilian waters, as *Beroe ovata* Chamisso & Eysenhardt, 1821 and some Scyphomedusae, seems to be efficient in controlling its abundance.

The introduction of *B. ovata* in the Black Sea improved the decreasing of *M. leidyi* abundance. Other *Beroe* species were expected to control *M. leidyi* abundance in the North and Baltic seas.

Keywords: Ctenophora, Mnemiopsis, Zooplankton, Geographic Distribution, Ecological Impact, Estuaries.

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