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Urban activity and mercury contamination in estuarine and marine sediments (Southern Brazil)

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The distribution of mercury in sediments of the Patos Lagoon estuary and nearby coastal marine deposits has been investigated for the period 1998–2008. Polluted urban soils and coastal reclamation fills are the principal sources of high mercury concentrations for shallow estuarine sediments. The shallow sediments that form near the urban area enter the navigation canal and are transported into the ocean. The mercury concentration in sediments of the navigation canal has considerably increased since 2004, due to intense reconstruction activity in the urban area. Periodic dredging of the canal strengthens the preconditions for coastal marine sediment contamination by mercury. However, this does not occur because the resuspended dredged sediments are significantly diluted by natural suspended particulate matter.

Palabras clave: Mercury, Monitoring, Estuarine sediments, Navigation canal, Coastal marine sediments, Patos Lagoon (Brazil)

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