

Appendix S1. Details of the material analysed.

Source	Vessel	Area	Sampling Stations (n)	Period	Environmental data			Specimens (n)		
					Depth (m)	Temperature (°C)	Salinity	<i>D. pleii</i>	<i>D. sanpaulensis</i>	<i>L. brevis</i>
FAUNEC III	R/V Prof. W. Besnard	Southern Brazil (23–29°S)	37	19–27 September 1975	10–122	15.5–25.5 (surface)	30.4–36.4 (surface)	486	1642	118
FAUNEC IV	R/V Prof. W. Besnard		41	07–17 November 1975	15–132	13–23 (bottom)	33.5–36.0 (bottom)			
SANTOS	R/V Emilia	Santos Bay (23°59'S; 46°21'W)	–	March 1977	–	–	–	–	–	16
NUTRI	R/V Emilia	Ilha de Santo Amaro (24°00'S; 46°14'W)	–	August 1978	20–30	–	–	–	–	48
Mar del Plata	Mar de Plata's harbour market	Mar del Plata (38°00'S; 57°32'W)	–	November 1978	–	–	–	–	148	–
Uruguay I	R/V Lamatra	Uruguayan coast (35°15'S; 52°58'W)	–	November 1978	–	18 (surface)	–	–	15	–
Uruguay II	R/V Lamatra	Uruguayan coast (34°58'S; 53°49'W)	–		–	16.6 (surface)	–	–	88	–
Lagoa I	–	Patos Lagoon estuary (31°45'S; 52°02'W)	–	January 1979	–	–	–	–	233	–
Lagoa II	–		–	February 1979	–	–	–	–	78	–
Lagoa III	–		–	March 1979	–	–	–	–	244	–
Museu Nacional do Rio de Janeiro	–	Rio de Janeiro	–	–	–	–	–	11*	–	1**
Total	–	Cabo Frio–Mar del Plata (23–38°S)	80	September 1975– March 1979	10–132	13–25.5	30.4–36.4	497	2474	183

* Four specimens from Mar del Plata (~38°S) (MNRJ 1634), ** specimen from Rio de Janeiro (MNRJ 674).