

Supplementary Materials

Communication

Hiding in plain sight: characterization of *Aeromonas* species isolated from a recreational estuary reveals the carriage and putative dissemination of resistance genes

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Figure S1 Guanabara Bay sampling sites (green dots). Site 1 is located in the proximity of the Atlantic Ocean and is one of the least impacted sites. Site 7 is considered the intermediate site and site 34 is located in the inner part of the estuary, being considered one of the most ecologically impacted sites. Red markers indicate wastewater treatment plants.....2

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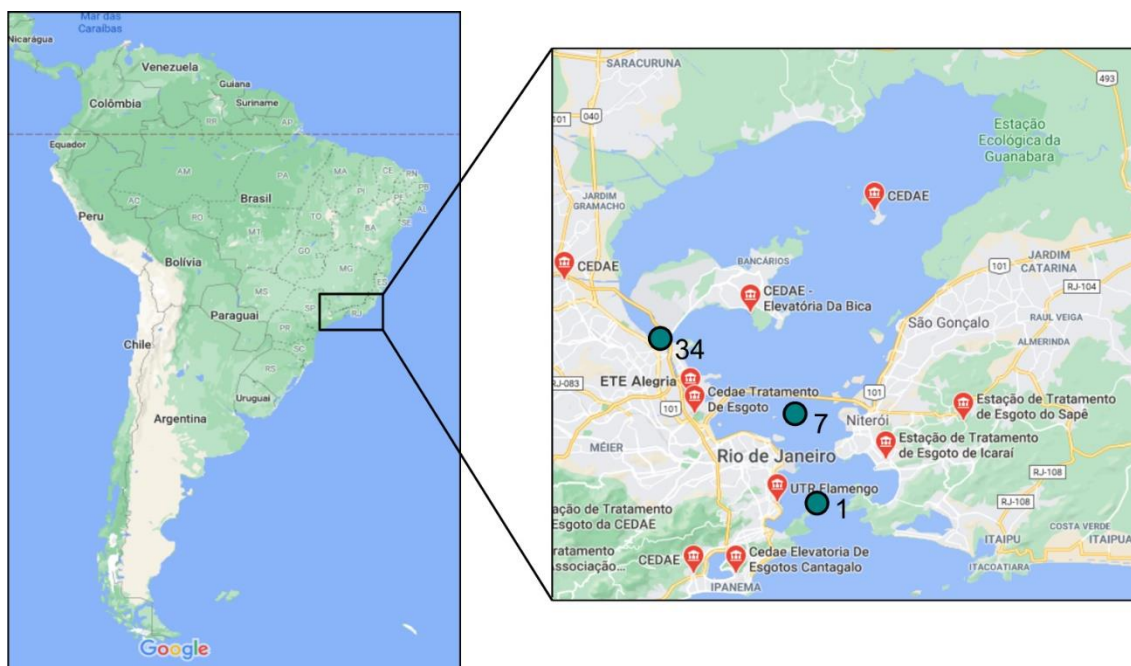


Figure S1 Guanabara Bay sampling sites (green dots). Site 1 is located in the proximity of the Atlantic Ocean and is one of the least impacted sites. Site 7 is considered the intermediate site and site 34 is located in the inner part of the estuary, being considered one of the most ecologically impacted sites. Red markers indicate wastewater treatment plants.

Table S1 Primer sequences, cycling conditions and amplicon sizes of the antimicrobial resistance genes investigated in this study.

Resistance gene	Primer	Sequence	Cycling conditions	Amplicon size (bp)	References
<i>bla_{GES}</i>	mGESF	5'-AGCAGCTCAGATCGGTGTTG-3'	95°C/10' + 30 cycles of 95°C/30", 54°C/30", 72°C/45" and final extension of 72°C/10'	750	[1,2]
	mGESR	5'-CCGTGCTCAGGATGAGTTG-3'			
<i>bla_{SHV}</i>	mSHVF	5'-CTTGACCGCTGGGAAACGG-3'		200	
	mSHVR	5'-AGCACGGAGCGGATCAACGG-3'			
<i>bla_{TEM}</i>	mTEMF	5'-CCCTTATTCCTTTTGTGCGG-3'		650	
	mTEMR	5'-AACCAGCCAGCCWGAAGG-3'			
<i>bla_{CTX-M-1,2}</i>	mCTX-1,2F	5'-ATGTGCAGYACCAGTAA-3'		512	
	mCTX-1,2R	5'-CGCTGCCGGTTTTATCSCCC-3'			
<i>bla_{CTX-M-8}</i>	mCTX-8F	5'-AACRCRCAGACGCTCTAC-3'		333	
	mCTX-8R	5'-TCGAGCCGGAASGTGTAT-3'			
<i>bla_{CTX-M-14}</i>	mCTX-14F	5'-GGTGACAAAGAGARTGCAACGGAT-3'		876	
	mCTX-14R	5'-TTACAGCCCTTCGGCGATGA-3'			
<i>bla_{KPC}</i>	KPC1F	5'-GCTACACCTAGCTCCACCTTC-3'	94°C/5' + 30 cycles of 94°C/1'; 61°C/30"; 72°C/1' and final extension of 72°C/5'	950	[3]
	KPC1R	5'-TGGAGGGCCAATAGATGATT-3'			
<i>mcr-1</i>	mcr1-mtpF	5'-ATGCCAGTTTCTTTTCGCGTG-3'	94°C/4' + 30 cycles of 94°C/5''; 59°C/20''	502	[4]
	mcr1-mtpR	5'-TCGGCAAATTGCGCTTTTGGC-3'			
<i>mcr-2</i>	mcr2-mtpF	5'-GATGGCGGTCTATCCTGTAT-3'		379	
	mcr2-mtpR	5'-AAGGCTGACACCCCATGTCAT-3'			
<i>mcr-3</i>	mcr3-mtpF	5'-ACCAGTAAATCTGGTGGCGT-3'		296	
	mcr3-mtpR	5'-AGGACAACCTCGTCATAGCA-3'			
<i>mcr-4</i>	mcr4-mtpF	5'-TTGCAGACGCCCATGGAATA-3'		207	
	mcr4-mtpR	5'-GCCGCATGAGCTAGTATCGT-3'			
<i>mcr-5</i>	mcr5-mtpF	5'-GGACGCGACTCCCTAACTTC-3'		608	
	mcr5-mtpR	5'-ACAACCAGTACGAGAGCACG-3'			

Table S2 Primer sequences, cycling conditions and amplicon sizes of the heavy metal resistance genes and the class 1 integron-integrase gene investigated in this study.

Resistance gene	Primer	Sequence	Cycling conditions	Amplicon size (bp)	References
<i>merA</i>	merA-F	5'-GTGCCGTCCAAGATCATGAT-3'	94°C/4 min + 30 ciclos de 94°C/1 min; 57°C/1 min; 72°C/1 min e extensão final a 72°C/8 min	933	[5]
	merA-R	5'-TAGCCYACRGTSGCACACTG-3'			
	A1F	5'-ACCATCGGCGGCACCTGCGT-3'	95°C/5 min + 30 ciclos de 94°C/15 s; 63°C/30 s; 68°C/1 min e extensão final a 68°C/4 min	1226	[6]
	A5R	5'-ACCATCGTCAGGTAGGGGACCAA-3'			
<i>merB</i>	IA34F	5'-TTGGATCCATGAAGCTCGCCCCAT-3'	95°C/ 5 min + 35 ciclos de 95°C/ 1 min; 61 °C/1 min; 72 °C/ 1 min e extensão final a 72°C/ 10 min	639	[7]
	IA35R	5'-TTGGTACCCTAGATGACATGACAT-3'			
<i>cusB</i>	czcB-I	5'-ATGAAAAAATCGCGCTT-3'	94°C/5 min + 35 ciclos de 94°C/30 s; 51°C/45 s; 72°C/1 min e extensão final a 72°C/10 min	1200	[8]
	czcB-II	5'- ATGCGCATGGGTAGCACT-3'			
<i>copA</i>	cad1	5'-CAAAYTGYGCRGGHAARTTYGA-3'	94°C/5 min + 30 ciclos de 94°C/1 min; 60°C/1 min e 30 s; 72°C/2 min e extensão final a 72°C/5 min	1058	[9]
	cad2	5'-AACTAATGCACAAGGACA-3'			
<i>pbrA</i>	pbrA-N	5'-ATGAGCGAATGTGGCTCGAAG-3'	96°C/5 min + 39 ciclos de 96°C/1 min; 58°C/1 min; 72°C/3 min e extensão final a 72°C/10 min	2400	[10]
	pbrA-C	5'-TCATCGACGCAACAGCCTCAA-3'			
<i>intI1</i>	INT1-F	5'-GGCTTCGTGATGCCTGCTT-3'	94°C/10 min + 35 ciclos de 98°C/30 s; 60°C/30 s; 72°C/30 s e extensão final a 72°C/10 min	146	[11]
	INT1-R	5'-CATTCCTGGCCGTGGTTCT-3'			

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