

Mossambicus tilapia (*Oreochromis mossambicus*) collected from water bodies impacted by urban waste carries extended-spectrum beta-lactamases and integron-bearing gut bacteria

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Supplementary material

Supplementary table 1. Prevalence of resistance factors in the bacterial strains isolated from Tilapia gut

Isolate code	Identification	<i>IntI1</i>	<i>IntI2</i>	<i>bla</i> _{SHV}	<i>bla</i> _{OXA}	<i>aac(6)-Ib-cr</i>	<i>bla</i> _{CTX-M}
TAL_108	<i>Acinetobacter johnsonii</i>	+	+			+	
TAL_117	<i>Acinetobacter johnsonii</i>	+				+	+
TAL_128	<i>Acinetobacter johnsonii</i>			+			
WAK_92	<i>Aeromonas</i> sp.		+				
AUN_36	<i>Aeromonas aquariorum</i>						
AUN_39	<i>Aeromonas aquariorum</i>		+				
TAL_112	<i>Aeromonas aquariorum</i>		+			+	+
AUN_16	<i>Aeromonas hydrophila</i>		+				
AUN_33	<i>Aeromonas hydrophila</i>						
AUN_34	<i>Aeromonas hydrophila</i>					+	+
AUN_35	<i>Aeromonas hydrophila</i>						
AUN_38	<i>Aeromonas hydrophila</i>	+	+	+			+
AUN_40	<i>Aeromonas hydrophila</i>		+				
CHIN_85	<i>Aeromonas hydrophila</i>						+
TAL_129	<i>Aeromonas hydrophila</i>	+					+
WAK_2	<i>Aeromonas hydrophila</i>						
TAL_55	<i>Aeromonas jandaei</i>						
WAK_20	<i>Aeromonas jandaei</i>					+	
WAK_91	<i>Aeromonas jandaei</i>	+					
TAL_115	<i>Aeromonas jandaei</i>	+	+				+
AUN_41	<i>Aeromonas</i> sp.	+					+
CHIN_5	<i>Aeromonas</i> sp.	+		+			+

Supplementary table 1 (continued)

Isolate code	Identification	<i>IntI1</i>	<i>IntI2</i>	<i>bla</i> _{SHV}	<i>bla</i> _{OXA}	<i>aac(6')-Ib-cr</i>	<i>bla</i> _{CTX-M}
CHIN_72	<i>Aeromonas</i> sp.		+				+
TAL_114	<i>Aeromonas</i> sp.	+	+				+
WAK_3	<i>Aeromonas</i> sp.	+		+			
WAK_4	<i>Aeromonas</i> sp.			+			
AUN_31	<i>Aeromonas sanarellii</i>					+	+
WAK_93	<i>Aeromonas sanarellii</i>	+				+	+
AUN_30	<i>Aeromonas taiwanensis</i>						
CHIN_143_a	<i>Aeromonas veronii</i>	+		+			
TAL_111	<i>Aeromonas veronii</i>	+					+
TAL_113	<i>Aeromonas veronii</i>		+			+	
TAL_121	<i>Aeromonas veronii</i>					+	+
AUN_14	<i>Aeromonas veronii</i>			+			+
TAL_110	<i>Aeromonas veronii</i>	+			+	+	+
TAL_50	<i>Bacillus</i> sp.			+			
WAK_23	<i>Bacillus</i> sp.	+		+			
WAK_136a	<i>Bacillus firmus</i>						
WAK_21	<i>Bacillus flexus</i>						
AUN_32	<i>Bacillus flexus</i>						
WAK_24	<i>Bacillus flexus</i>		+				
WAK_94	<i>Bacillus flexus</i>						
TAL_51	<i>Bacillus marisflavi</i>			+			
TAL_131	<i>Bacillus megaterium</i>		+				
AUN_15	<i>Bacillus megaterium</i>			+			
CHIN_81	<i>Bacillus megaterium</i>					+	+
CHIN_9	<i>Bacillus megaterium</i>						
TAL_130	<i>Bacillus megaterium</i>	+					
CHIN_88	<i>Bacillus muralis</i>	+					+
TAL_106	<i>Bacillus oceanisediminis</i>	+		+		+	+
TAL_104	<i>Bacillus thioparans</i>		+	+			
CHIN_139	<i>Enterobacter aerogenes</i>					+	
WAK_135	<i>Enterobacter aerogenes</i>	+				+	
WAK_137	<i>Enterobacter aerogenes</i>	+	+			+	
WAK_136	<i>Enterobacter aerogenes</i>		+				+
CHIN_84	<i>Enterobacter asburiae</i>				+		+
CHIN_86	<i>Enterobacter asburiae</i>	+					+
CHIN_147	<i>Enterobacter asburiae</i>	+					+
WAK_138	<i>Enterobacter cloacae</i>						
AUN_37	<i>Enterobacter cowanii</i>			+			+
CHIN_7	<i>Enterobacter hormaechei</i>						
CHIN_6	<i>Enterobacter</i> sp.						
CHIN_145	<i>Enterococcus faecium</i>	+	+		+	+	+
TAL_101	<i>Escherichia coli</i>	+				+	+
WAK_96	<i>Escherichia coli</i>	+	+	+			
TAL_98	<i>Shigella dysenteriae</i>	+			+		
AUN_28	<i>Shigella dysenteriae</i>					+	
TAL_99	<i>Shigella fergusonii</i>	+	+		+		
AUN_13	<i>Shigella flexneri</i>			+		+	

Supplementary table 1 (continued)

Isolate code	Identification	<i>IntI1</i>	<i>IntI2</i>	<i>bla</i> _{SHV}	<i>bla</i> _{OXA}	<i>aac(6)-Ib-cr</i>	<i>bla</i> _{CTX-M}
WAK_22	<i>Shigella flexneri</i>			+		+	+
WAK_1	<i>Klebsiella pneumoniae</i>						
TAL_102	<i>Klebsiella pneumoniae</i>	+		+		+	
CHIN_87	<i>Leclercia adecarboxylata</i>	+					
CHIN_8	<i>Plesiomonas shigelloides</i>		+	+		+	
CHIN_82	<i>Plesiomonas shigelloides</i>			+			
TAL_128_a	<i>Plesiomonas shigelloides</i>	+					
TAL_44	<i>Pseudomonas</i> sp.	+		+			
TAL_105	<i>Pseudomonas alcaligenes</i>		+			+	+
CHIN_89	<i>Pseudomonas plecoglossicida</i>			+		+	
TAL_43	<i>Pseudomonas taiwanensis</i>			+			
CHIN_74	<i>Rheinheimera perlucida</i>						
TAL_45	<i>Shigella flexneri</i>			+			
CHIN_142	<i>Serratia marcescens</i>					+	+
TAL_120	<i>Serratia marcescens</i>	+	+				+
CHIN_143	<i>Serratia marcescens</i>			+		+	+
CHIN_144	<i>Serratia marcescens</i>	+		+		+	+
CHIN_148	<i>Serratia marcescens</i>	+					+
TAL_119	<i>Serratia marcescens</i>	+				+	+
TAL_47	<i>Staphylococcus sciuri</i>			+			
TAL_52	<i>Staphylococcus sciuri</i>				+		
AUN_29	<i>Vibrio albensis</i>			+			

+ indicates the presence of the gene, *IntI1*, class 1 integrase, *IntI2*, class 2 integrase, *bla*_{SHV}, ESBL SHV type; *bla*_{OXA}, ESBL OXA type; *bla*_{CTX-M}, ESBL CTXM type; *aac(6)-Ib-cr*, aminoglycoside acetyltransferase; TAL, isolates from Lake Tilapia; AUN, CHIN, WAK, isolates from River Tilapia.