

TABLE I

Yeast, total coliforms, and *Escherichia coli* densities in sand and water samples [colony-forming unit (CFU) or MPN/100 mL for water samples and CFU or MPN/g for sand samples] collected at recreational beaches in the state of Rio de Janeiro, Brazil

State	Beach	Transect*	Zone**	Yeast (CFU/g or 100 mL)		Total coliforms (MPN/g or 100 mL)		<i>E. coli</i> (MPN/g or 100 mL)		State	Beach	Transect*	Zone**	Yeast (CFU/g or 100 mL)		Total coliforms (MPN/g or 100 mL)		<i>E. coli</i> (MPN/g or 100 mL)				
				Winter	Summer	Winter	Summer	Winter	Summer					Winter	Summer	Winter	Summer	Winter	Summer			
Rio de Janeiro	Ipanema 1	1	Supra	6.5	0.0	142.7	0.8	2.5	0.5	Rio de Janeiro	Copacabana 1	1	Supra	250.0	0.0	5.6	0.3	< 0.2	< 0.2			
			Medio	25.6	0.0	20.5	3.2	< 0.16	3.0				Medio	56.8	1.6	0.2	148.0	< 0.2	78.5			
			Infra	4.3	1.0	> 517.3	> 463.8	7.0	> 463.8				Infra	2.3	408.5	7.6	> 449.3	1.7	7.7			
			Water	24.0	0.0	> 4839.2	> 4839.2	3465.8	> 4839.2				Water	16.0	32.0	2406.6	> 4839.2	821.2	1659.4			
		2	Water	84.0	8.0	> 4839.2	> 4839.2	4839.2	1454.0			2	Water	56.0	28.0	> 4839.2	> 4839.2	> 4839.2	> 4839.2			
			3	Supra	0.9	5.7	0.2	0.7	0.2				< 0.2	3	Supra	12.0	3.2	4.7	0.3	4.7	< 0.2	
		Medio		5.8	0.8	< 0.2	125.4	0.8	56.1			Medio	0.8		4.0	< 0.2	64.8	< 0.2	45.1			
		Infra		2.1	0.0	171.6	> 481.0	6.0	308.8			Infra	0.0		0.0	7.6	59.0	4.7	14.0			
		Water		0.0	20.0	2599.4	> 4839.2	689.6	> 4839.2			Waterw	64.0		4.0	> 4839.2	> 4839.2	> 4839.2	> 4839.2			
		Ipanema 2	1	Supra	64.0	142.4	379.4	0.3	270.0			< 0.2	Rio de Janeiro	Copacabana 2	1	Supra	124.4	0.0	5.1	14.1	0.2	< 0.2
				Medio	13.4	9.6	6.3	> 387.8	5.4			> 387.8				Medio	1.8	9.5	0.2	> 384.2	< 0.2	> 384.2
				Infra	1.2	2.5	61.4	102.6	3.8			38.2				Infra	15.6	2.8	38.7	44.0	13.0	17.7
	Water			8.0	4.0	1841.6	> 4839.2	581.8	1841.6	Water	36.0	8.0				> 4839.2	> 4839.2	3465.8	1841.6			
	2		Water	20.0	0.0	> 4839.2	> 4839.2	520.6	1960.8	2	Water	12.0			24.0	4839.2	> 4839.2	2406.6	3972.6			
			3	Supra	145.1	4.0	115.0	4.0	18.7		< 0.2	3			Supra	114.7	2.4	13.0	< 0.2	1.1	< 0.2	
	Medio			15.0	0.8	2.2	4.1	< 0.2	0.6	Medio	2.8				0.0	< 0.2	39.7	0.4	22.7			
	Infra			0.0	0.0	43.5	294.7	0.5	53.3	Infra	2.3				0.9	12.2	17.2	4.6	5.2			
	Water			0.0	4.0	1454.0	> 4839.2	1034.4	1034.4	Water	20.0				8.0	> 4839.2	> 4839.2	922.2	2406.6			
	Ipanema 3		1	Supra	133.2	80.0	8.9	25.9	0.2	0.2	Rio de Janeiro	Copacabana 3			1	Supra	367.0	32.3	> 558.5	3.6	> 558.5	< 0.2
				Medio	2.7	7.9	3.0	10.9	1.7	4.4						Medio	24.7	0.0	1.2	251.2	11.3	28.8
				Infra	0.0	0.9	155.3	202.2	22.6	28.1						Infra	0.0	0.0	7.8	> 476.1	7.5	143.0
		Water		4.0	12.0	1258.8	4839.2	67.4	2827.2	Water			104.0	8.0		> 4839.2	> 4839.2	2.0	> 4839.2			
		2	Water	28.0	20.0	944.2	> 4839.2	296.6	2599.4	2			Water	36.0	20.0	> 4839.2	> 4839.2	3465.8	4839.2			
			3	Supra	244.6	0.8	> 501.7	0.3	3.9				< 0.2	3	Supra	222.62	0.0	417.1	< 0.2	251.8	< 0.2	
Medio		139.4		21.4	1.7	10.7	< 0.2	3.2	Medio	5.3			0.0		430.7	8.0	> 430.7	0.8				
Infra		1.2		0.0	23.9	186.0	3.2	16.7	Infra	3.7			9.9		39.9	14.4	20.2	5.2				
Water		8.0		0.0	516.2	> 4839.2	61.0	1297.6	Water	128.0			24.0		> 4839.2	> 4839.2	2406.6	4839.2				

*: transect 1 - 50 m to the south of the drainage system of pluvial waters; transect 2 - in front of the drainage system; transect 3 - 50 m to the south of the drainage system. **: supra - supralittoral; medio - mediolittoral; infra - infralittoral.



TABLE II
Yeast and *Escherichia coli* densities in sand and water samples (CFU or MPN/100 mL for water samples and CFU or MPN/g for sand samples) collected at recreational beaches in the state of Paraná, Brazil

State	Beach	Transect*	Zone**	Yeast (CFU/g or 100 mL)		<i>E. coli</i> (MPN/g or 100 mL)		State	Beach	Transect*	Zone**	Yeast (CFU/g or 100 mL)		<i>E. coli</i> (MPN/g or 100 mL)			
				Winter	Summer	Winter	Summer					Winter	Summer	Winter	Summer		
Paraná	Mansa	1	Supra	5.8	22.5	0.2	2.2	Paraná	Leste	1	Supra	8.7	18.0	0.2	0.1		
			Medio	2.8	0.0	3.7	0.6				Medio	8.4	0.9	7.7	1.2		
			Infra	4.4	34.2	0.7	0.4				Infra	0.0	10.8	1.3	0.3		
			Water	20.00	60.0	2239.8	151.6				Water	4.0	0.0	1226.2	2595.2		
		2	Water	68.00	128.0	1740.8	98.8			2	Water	0.0	0.0	615.2	2004.8		
			3	Supra	4.2	5.4	0.2				2.0	3	Supra	6.1	0.0	0.2	ND
				Medio	5.9	5.4	0.2				0.1		Medio	0.0	0.0	0.2	5.1
				Infra	3.5	0.0	0.2				7.2		Infra	0.0	3.6	0.2	1.8
		Water		20.00	64.0	3106.2	61.2			Water	0.0		0.0	370.0	1740.8		
		Central	1	Supra	45.6	8.1	262.1			0.1	Ipanema	1	Supra	54.9	> 270.0	0.2	7.8
				Medio	7.0	0.9	20.6			23.9			Medio	5.6	17.1	85.8	1.2
				Infra	15.6	1.8	12.0			54.7			Infra	3.4	1.8	16.7	1.1
	Water			16.0	24.0	3972.6	136.4		Water	12.0			0.0	449.4	665.6		
	2		Water	172.0	0.0	3465.8	249.6		2	Water		16.0	20.0	581.8	440.0		
			3	Supra	149.5	1.8	9.6			3.5		3	Supra	8.5	133.2	0.2	0.6
				Medio	9.0	4.5	483.4			36.6			Medio	11.1	6.3	13.7	5.0
				Infra	17.6	5.4	179.6			28.4			Infra	1.2	2.7	12.5	3.0
	Water			68.0	52.0	4839.2	1379.2		Water	4.0			36.0	186.6	688.8		
	Flórida		1	Supra	19.4	4.5	0.2		10.5	Shangrilá		1	Supra	0.0	6.3	0.7	0.5
				Medio	8.2	28.8	45.4		19.0				Medio	9.9	7.2	530.9	0.1
				Infra	3.0	0.9	483.4		19.2				Infra	2.2	1.8	74.4	12.0
		Water		16.0	16.0	229.0	310.4		Water		0.0		4.0	296.4	1376.0		
		2	Water	0.0	16.0	357.8	> 9678.4		2		Water	0.0	56.0	247.2	898.8		
			3	Supra	3.4	8.1	5.0				0.1	3	Supra	83.9	0.0	0.2	0.1
Medio				1.7	0.9	0.2	0.1	Medio			5.6		3.6	62.8	51.4		
Infra				2.2	0.0	128.2	9.6	Infra			1.2		1.8	6.7	9.3		
Water		4.0		28.0	372.0	134.8	Water	4.0	48.0		323.2		688.8				

*: transect 1 - 50 m to the south of the drainage system of pluvial waters; transect 2 - in front of the drainage system; transect 3 - 50 m to the south of the drainage system. **: supra - supralittoral; médio - mediolittoral; infra - infralittoral.