

Supplementary Information

Determination of CO₂, CH₄ and N₂O: a Case Study for the City of Rio de Janeiro Using a New Sampling Method

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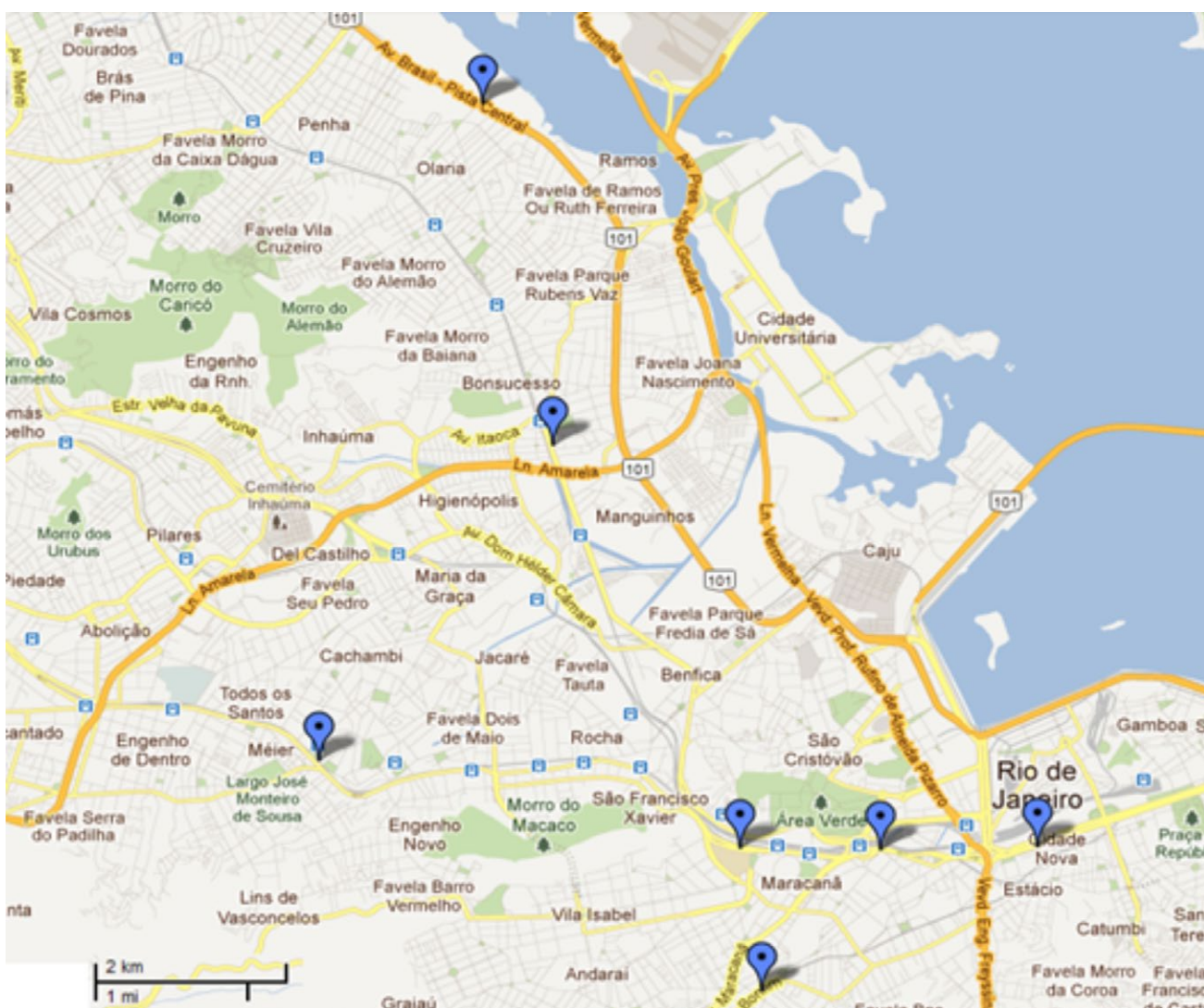


Figure S1. Map of the city of Rio de Janeiro indicating the sampling locations. Source: Google maps.

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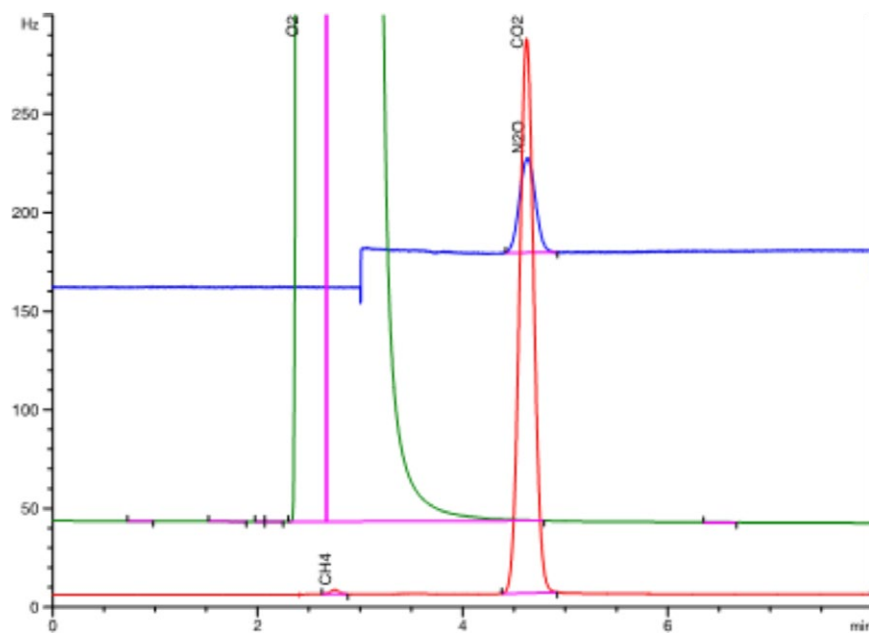


Figure S2. Typical chromatogram for the standard mixture of CO₂, CH₄ and N₂O.

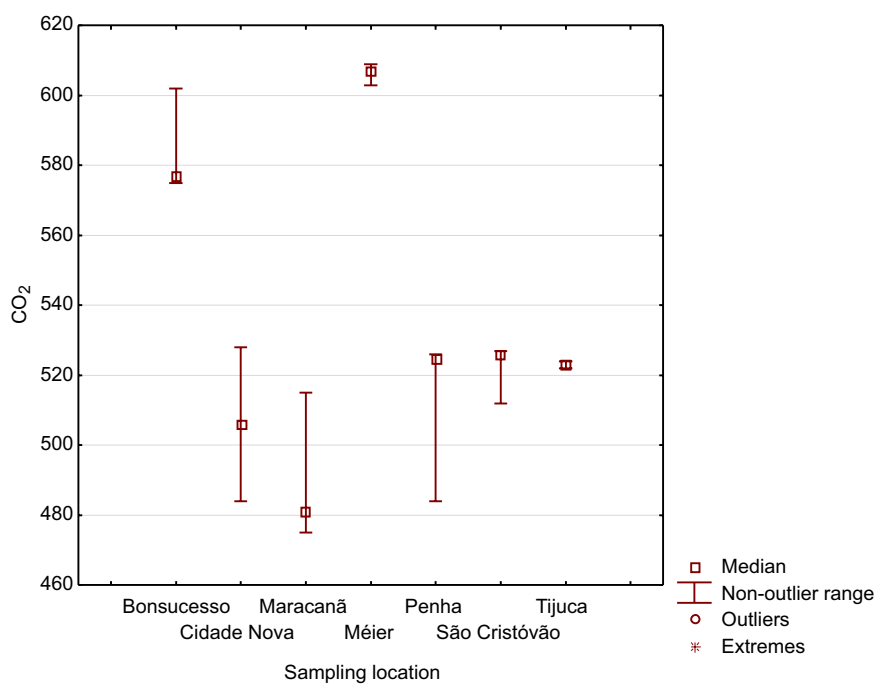


Figure S3. Variation of CO₂ concentrations in the sampling locations. Units in $\mu\text{mol mol}^{-1}$.

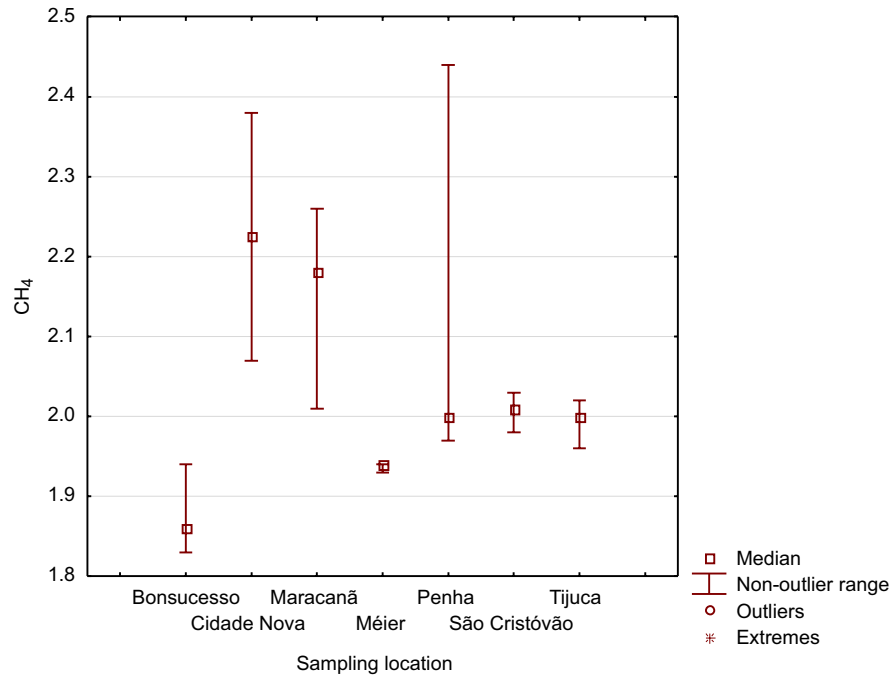


Figure S4. Variation of CH₄ concentrations in the sampling locations. Units in μmol mol⁻¹.

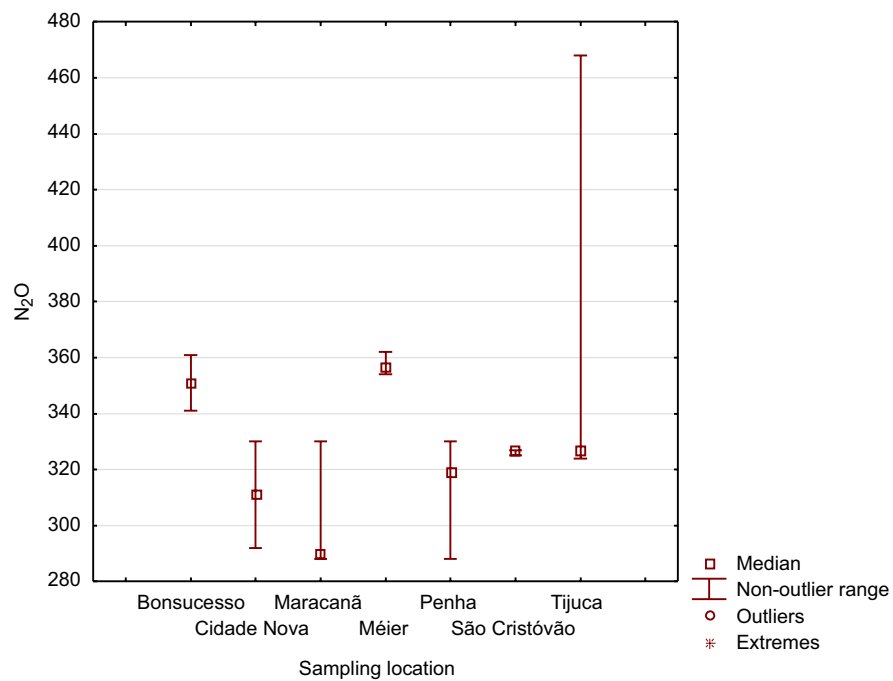


Figure S5. Variation of N₂O concentrations in the sampling locations. Units in nmol mol⁻¹.

Table S1. Exact localization of each sampling point

District	Sampling location	Coordinate
Bonsucesso	Leopoldo Bulhões Street, 1480	-22.878377, -43.250977
Cidade Nova	Presidente Vargas Avenue, 3131	-22.909728, -43.204511
Maracanã	Maracanã Stadium	-22.912109, -43.230199
Meier	Arquias Cordeiro Street, 370	-22.901077, -43.278352
Penha	Brasil Avenue, 10500	-22.814309, -43.293584
São Cristóvão	Bandeira Square	-22.910498, -43.216411
Tijuca	Saenz Peña Square	-22.924056, -43.231967

Table S2. Meteorological parameters in the locations described in Table S1

Day	Hour	Temperature / °C	Relative humidity / %	Mixing height / m	Wind velocity / (m s ⁻¹)
2011/10/28	06:30 a.m.	26.1	92.2		0.3
	12:00 a.m.	33.8	64.3	388	2.0
	04:00 p.m.	30.5	74.6		2.3
2011/11/25	01:40 p.m.	25.3	65.8		1.4
	04:15 p.m.	23.9	71.3		2.6
	07:45 a.m.	21.7	86.7	472	0.5
	01:15 p.m.	33.4	53.0		1.6
	04:30 p.m.	26.3	71.2		2.0
2011/10/27	06:45 a.m.	28.2	79.7		1.4
	01:00 p.m.	39.2	49.6	858	2.3
	04:45 p.m.	31.1	61.1		0.6
2011/11/25	06:40 a.m.	24.4	91.9		0.5
	01:00 p.m.	31.5	69.1		2.3
	05:00 p.m.	27.6	81.2		2.7
	07:35 a.m.	25.7	81.1		0.1
	01:25 p.m.	29.8	74.4	472	1.5
	04:15 p.m.	28.0	78.8		2.3
	07:05 a.m.	20.9	89.4		0.1
	02:00 p.m.	30.0	60.9		1.9
04:00 a.m.	28.2	66.4		1.0	