

More than just sweet: current insights into microplastics in honey products and a case study of *Melipona quadrifasciata* honey

Bárbara Rani-Borges^{1*}; Mariana Victorino Nicolosi Arena^{2,3}; Ingrid Naiara Gomes^{4,5}; Luís Henrique França de Carvalho Lins⁶; Livia Cestaro de Souza Camargo¹; Marcelo Pompêo²; Rômulo Augusto Ando¹; Isabel Alves-dos-Santos², Rogério Hartung Toppa³; Marcos Roberto Martines⁷; Lucas Gonçalves Queiroz¹

¹ Department of Fundamental Chemistry, Institute of Chemistry, University of São Paulo, USP, 05508-000 São Paulo, Brazil

² Department of Ecology, Institute of Biosciences, University of São Paulo, USP, 05508-090 São Paulo, Brazil

³ Department of Environmental Sciences, Center for Studies in Landscape Ecology and Conservation, Federal University of São Carlos, UFSCar, 13565-905 Sorocaba, Brazil

⁴ Department of Genetics, Ecology, and Evolution, Center for Ecological Synthesis and Conservation, Federal University of Minas Gerais, UFMG, 31270-901 Belo Horizonte, Brazil

⁵ Graduate Program in Ecology, Conservation, and Wildlife Management, Federal University of Minas Gerais, UFMG, 31270-910 Belo Horizonte, Brazil

⁶ Department of Oceanography, Federal University of Pernambuco, UFPE, 50740-540 Recife, Brazil

⁷ Department of Geography, Tourism, and Humanities, Federal University of São Carlos, UFSCar, 13565-905 Sorocaba, Brazil

* Corresponding author:

barbara.rani-borges@usp.br

Table S1. Coordinates of the 8 sampling stations

ID	Coordinates	
	X	Y
A	320609	7403810
B	333509	7403360
C	23353	7392910
D	333880	7395320
E	337975	7393000
F	347388	7394840
G	324921	7382010
H	318153	7372570

Table S2. Particles identified in the blank samples

Replica 1				Replica 2				Replica 3			
Number	Shape	Color	Size (µm)	Number	Shape	Color	Size (µm)	Number	Shape	Color	Size (µm)
1	Fiber	Black	1133.2	1	Fragment	Colorless	57.6	1	Fiber	Colorless	844.5
2	Fiber	Colorless	1352.2	2	Fiber	Black	185.0	2	Fiber	Colorless	548.9
3	Fiber	Colorless	1059.1	3	Fragment	Colorless	153.0	3	Fiber	Colorless	1136.9
4	Fiber	Colorless	786.1	4	Fiber	Black	146.2	4	Fiber	Colorless	1081.3
5	Fiber	Colorless	601.9	5	Fiber	Colorless	302.6	5	Fiber	Colorless	1936.7
6	Fragment	Blue	128.1	6	Fragment	Colorless	275.5	6	Fiber	Colorless	325.1
7	Fiber	Colorless	1628.3	7	Fragment	Colorless	130.9				
8	Fiber	Blue	461.6	8	Fiber	Colorless	707.6				
				9	Fiber	Colorless	1066.2				
				10	Fragment	Colorless	364.0				

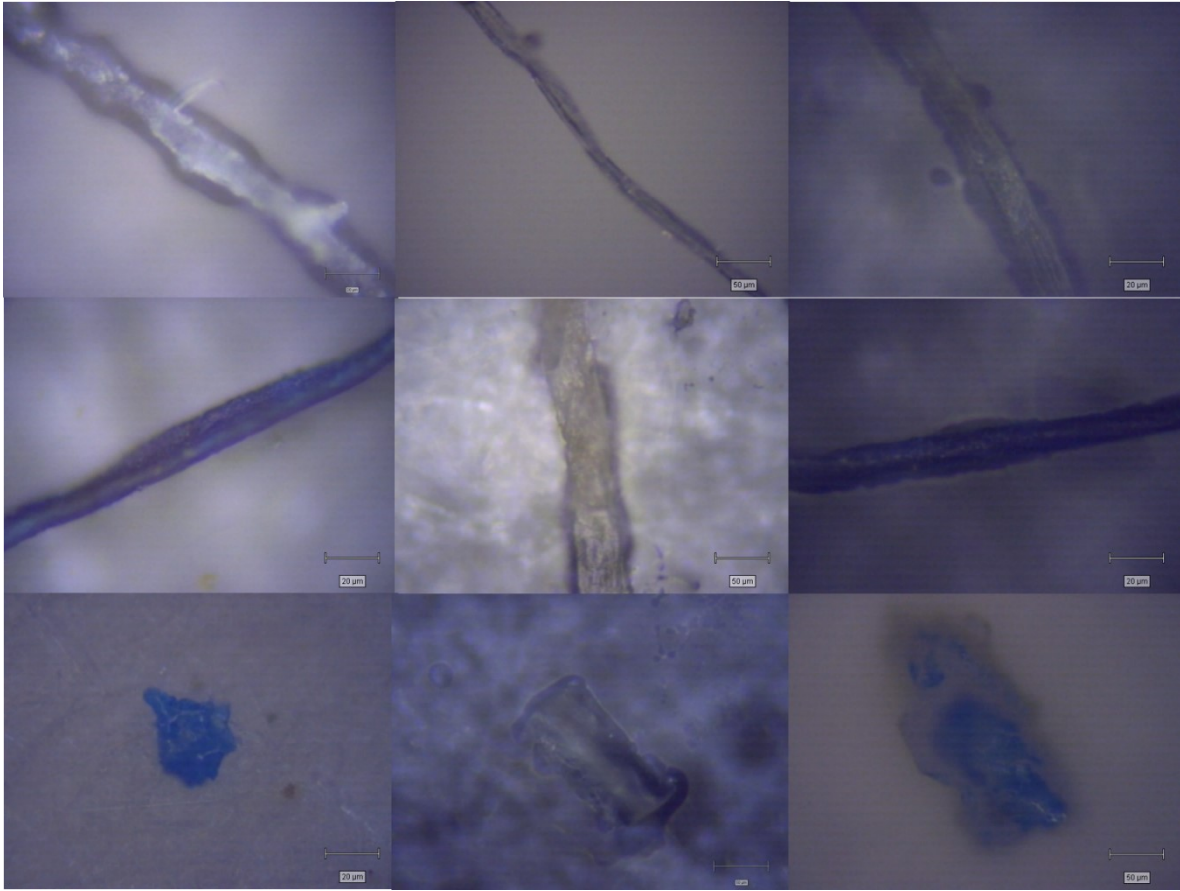


Fig S1. Representative particles of microplastics found in the honey samples.