Supplementary Information

Geographical heterogeneity and dominant polymer types in microplastic contamination of lentic ecosystems: implications for methodological standardization and future research

Lindys Miranda-Peña,[a] Laura Buitrago-Duque,[a] Nelson Rangel-Buitrago,[b] Adriana Gracia C.,[a] Victoria Andrea Arana,[c] and Jorge Trilleras*[c]

[a] *Programa de Biología, Facultad de Ciencias Básicas, Universidad del Atlántico, Puerto Colombia, Atlántico, Colombia. E-mail: lymiranda@mail.uniatlantico.edu.co; mariaadrianagracia@mail.uniatlantico.edu.co*

[b] *Programa de Física, Facultad de Ciencias Básicas, Universidad del Atlántico, Puerto Colombia, Atlántico, Colombia. E-mail: nelsonrangel@mail.uniatlantico.edu.co*

[c] *Programa de Maestría en Ciencias Químicas, Facultad de Ciencias Básicas, Universidad del Atlántico, Puerto Colombia, Atlántico, Colombia. E-mail: victoriaarana@mail.uniatlantico.edu.co; jorgetrilleras@mail.uniatlantico.edu.co ; Phone: +57 -3165288489*

Table of Contents

Table 1S List of articles used in the meta-analysis.

Title	Lentic system / Country	Reference
A temporal sediment record of microplastics in an urban lake, London, UK	Urban Lakes / London	(Turner et al., 2019)
Comparing microplastics contaminants in (dry and raining) seasons for Ox- Bow Lake in Yenagoa, Nigeria	Ox-Bow Lake / Nigeria	(Oni et al., 2020)
Comparison of the abundance of microplastics between rural and urban areas: A case study from East Dongting Lake	East Dongting Lake / China	(Yin et al., 2020)
Fibers spreading worldwide: Microplastics and other anthropogenic litter in an Arctic freshwater lake	Lake Knudsenheia / Norway	(González-Pleiter et al., 2020)
Hidden plastics of Lake Ontario, Canada and their potential preservation in the sediment record	Ontario Lake / Canada	(Corcoran et al., 2015)
High levels of pelagic plastic pollution within the surface waters of Lakes Erie and Ontario	Lake Erie, Lake Ontario / Canada	(Mason et al., 2020)
Impact of microplastics on microbial community in sediments of the Huangjinxia Reservoir—water source of a water diversion project in western China	Huangjinxia Nature Reserve / China	(Chaoran Li et al., 2020)
Microplastic Abundance and Composition in Western Lake Superior as Determined via Microscopy, Pyr-GC/MS, and FTIR	Western Lake Superior / Canada	(Hendrickson et al., 2018)
Microplastic concentrations, size distribution, and polymer types in the surface waters of a northern European lake	Lake Kallavesi / Finland	(Uurasjärvi et al., 2019)
Microplastic pollution in the surface waters of Italian Subalpine Lakes	Lake Iseo, Lake Maggiore, Lake Garda / Italy	(Sighicelli et al., 2018)
Microplastics in Sediment and Surface Water of West Dongting Lake and South Dongting Lake: Abundance, Source and Composition	Dongting Lake / China	(Jiang et al., 2018)
Microplastics in sediments of artificially recharged lagoons: Case study in a Biosphere Reserve	Laguna del altillo Chico, Laguna el longar, Laguna La Albardiosa, Laguna Grande de Quero, Laguna Larga de Villacañas, Laguna Chica de Villafranca de los Caballeros / Spain	(Edo et al., 2020)
Microplastics in surface waters of Dongting Lake and Hong Lake, China	Dongting Lake, Hong Lake / China	(Wang et al., 2018)
Microplastics in Taihu Lake, China	Taihu Lake / China	(Su et al., 2016)

Microplastics in the surface water of Wuliangsuhai Lake, northern China	Wuliangsuhai Lake / China	(Mao et al., 2020)
Occurrence and Spatial Distribution of Microplastics in the surface Waters of Lake Naivasha, Kenya	Lake Naivasha / Kenya	(Migwi et al., 2020)
Occurrence, distribution and size relationships of plastic debris along shores and sediment of northern Lake Victoria	Victoria Lake/ Kenya	(Egessa et al., 2020)
Pelagic plastic pollution within the surface waters of Lake Michigan, USA	Lake Michigan / USA	(Mason et al., 2016)
Pigments and plastic in limnetic ecosystems: A qualitative and quantitative study on microparticles of different size classes	Lake Garda / Italy	(Imhof et al., 2016)
Sources and sinks of microplastics in Canadian Lake Ontario nearshore, tributary and beach sediments	Lake Ontario / Canada	(Ballent et al., 2016)
Thorough Multianalytical Characterization and Quantification of Micro- and Nanoplastics from Bracciano Lake's Sediments	Lake Bracciano / Italy	(Corti et al., 2020)

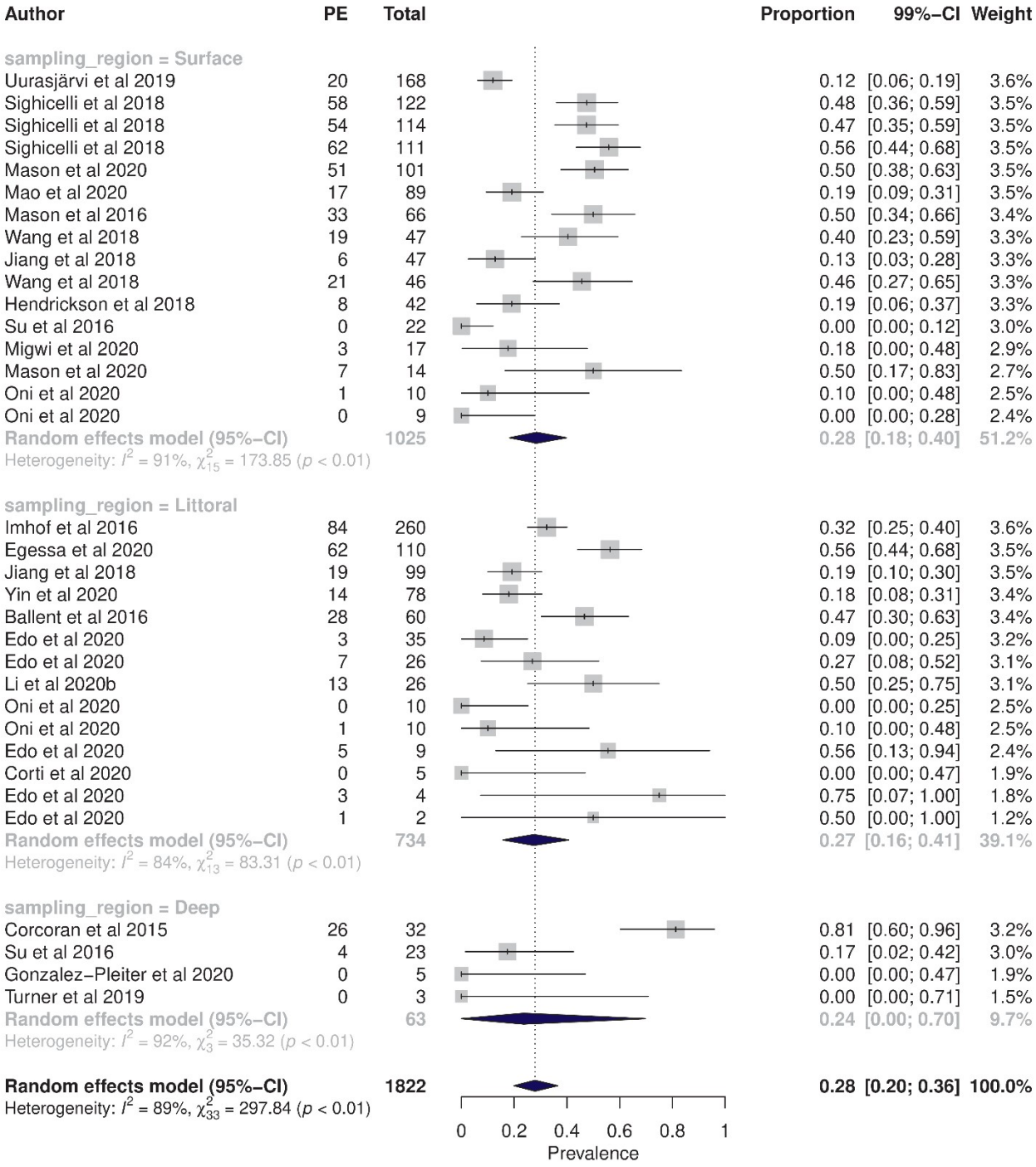

Figure S1. Forest plot for PE (Polyethylene) by sampling region. The plot shows the observed results and the estimation of the random effects model for the types of microplastic polymers.

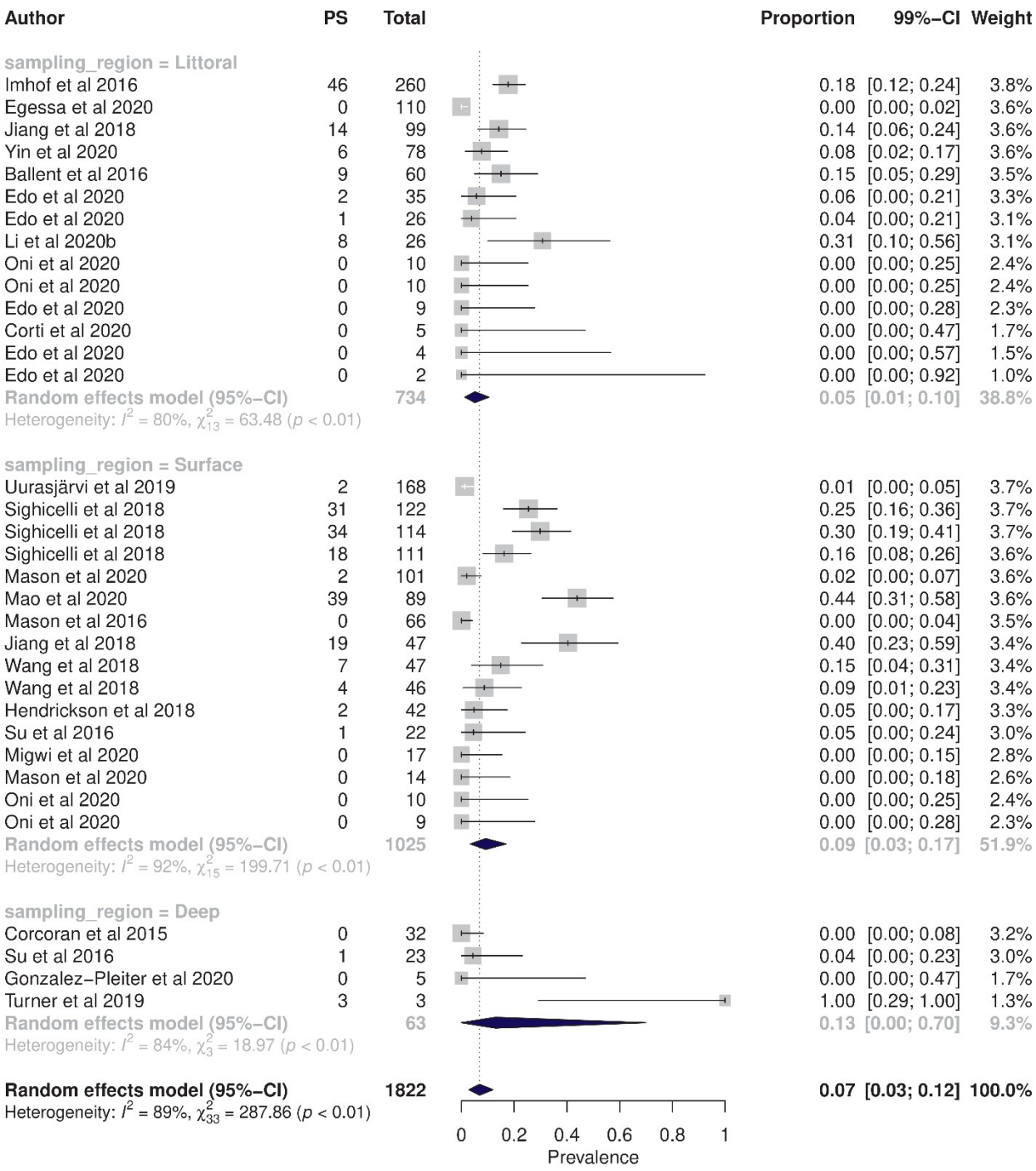

Figure S2. Forest plot for PS (Polystyrene) by sampling region. The plot shows the observed results and the estimation of the random effects model for the types of microplastic polymers.

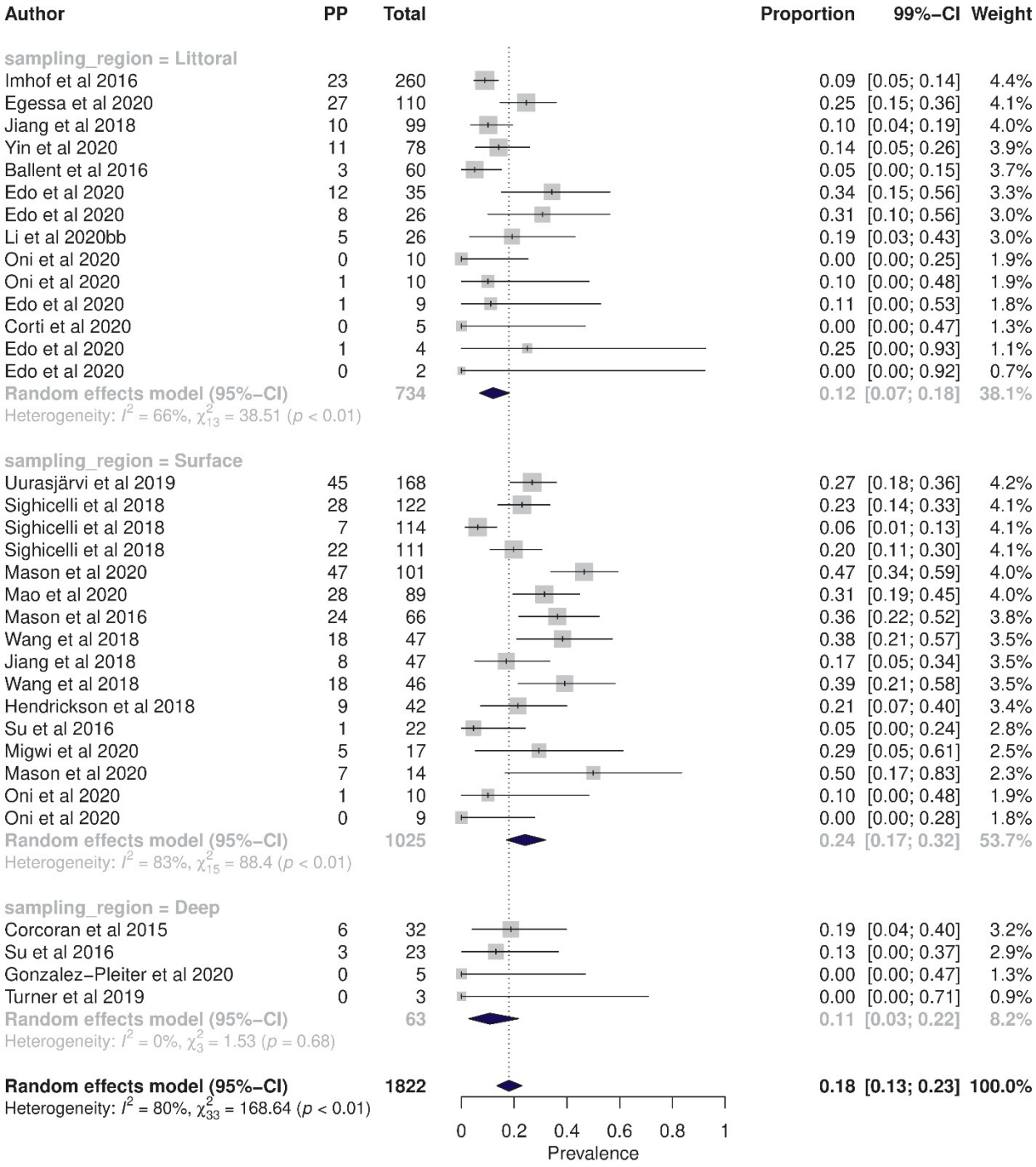

Figure S3. Forest plot for PP (Polypropylene) by sampling region. The plot shows the observed results and the estimation of the random effects model for the types of microplastic polymers.

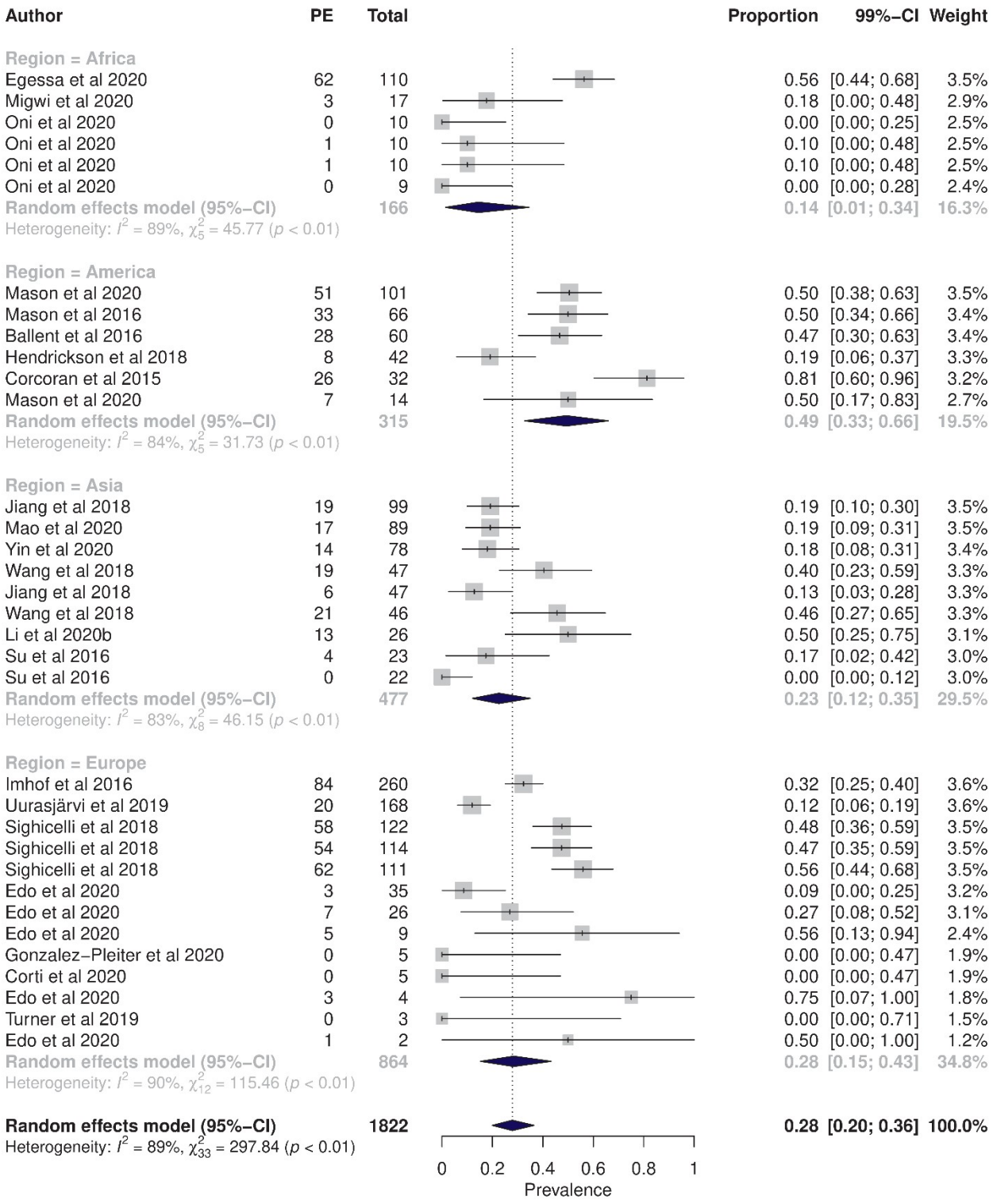

Figure S4. Forest plot for PE (Polyethylene) by geographic region. The plot shows the observed results and the estimation of the random effects model for the types of microplastic polymers.

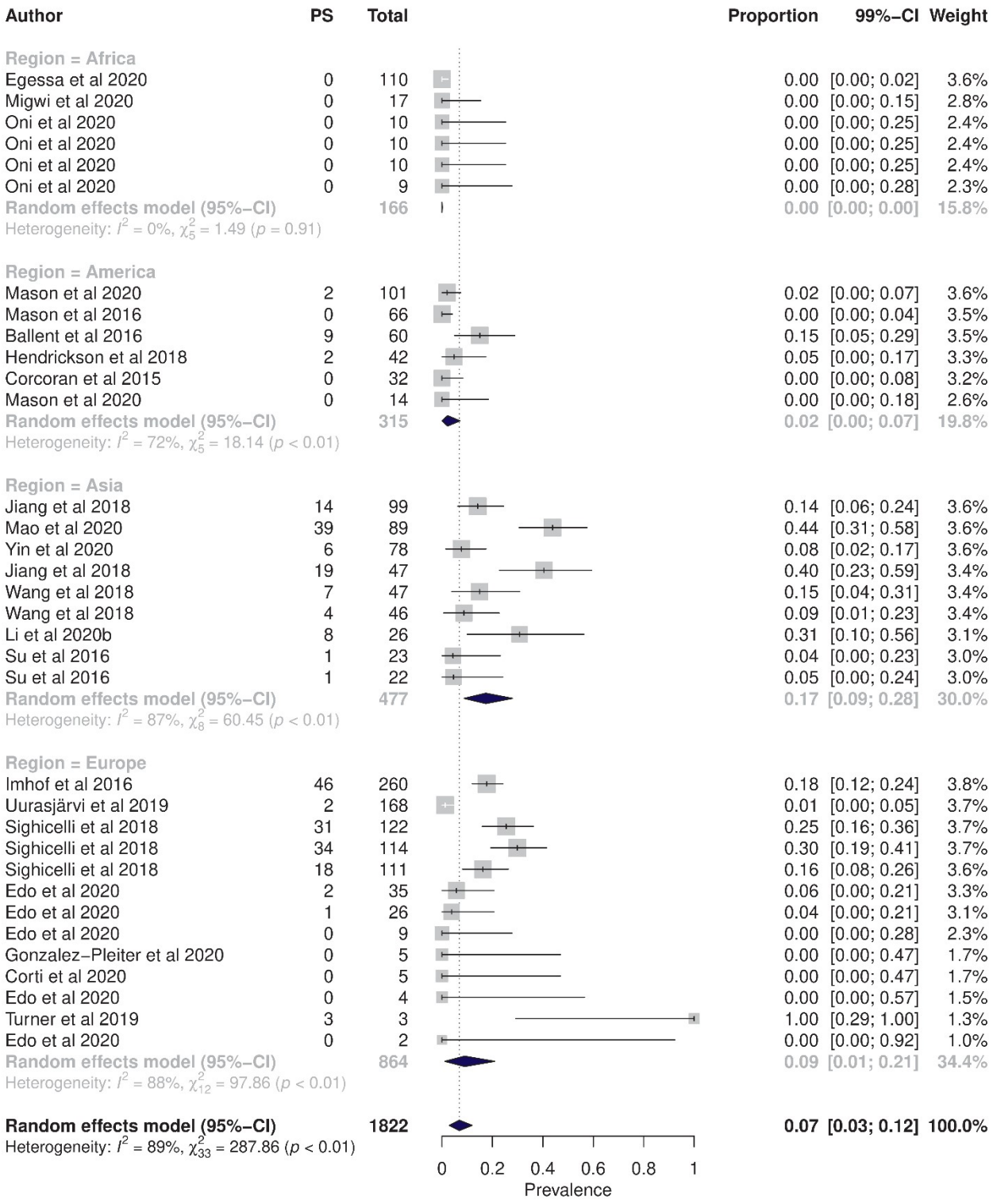

Figure S5. Forest plot for PS (Polystyrene) by geographic region. The plot shows the observed results and the estimation of the random effects model for the types of microplastic polymers.

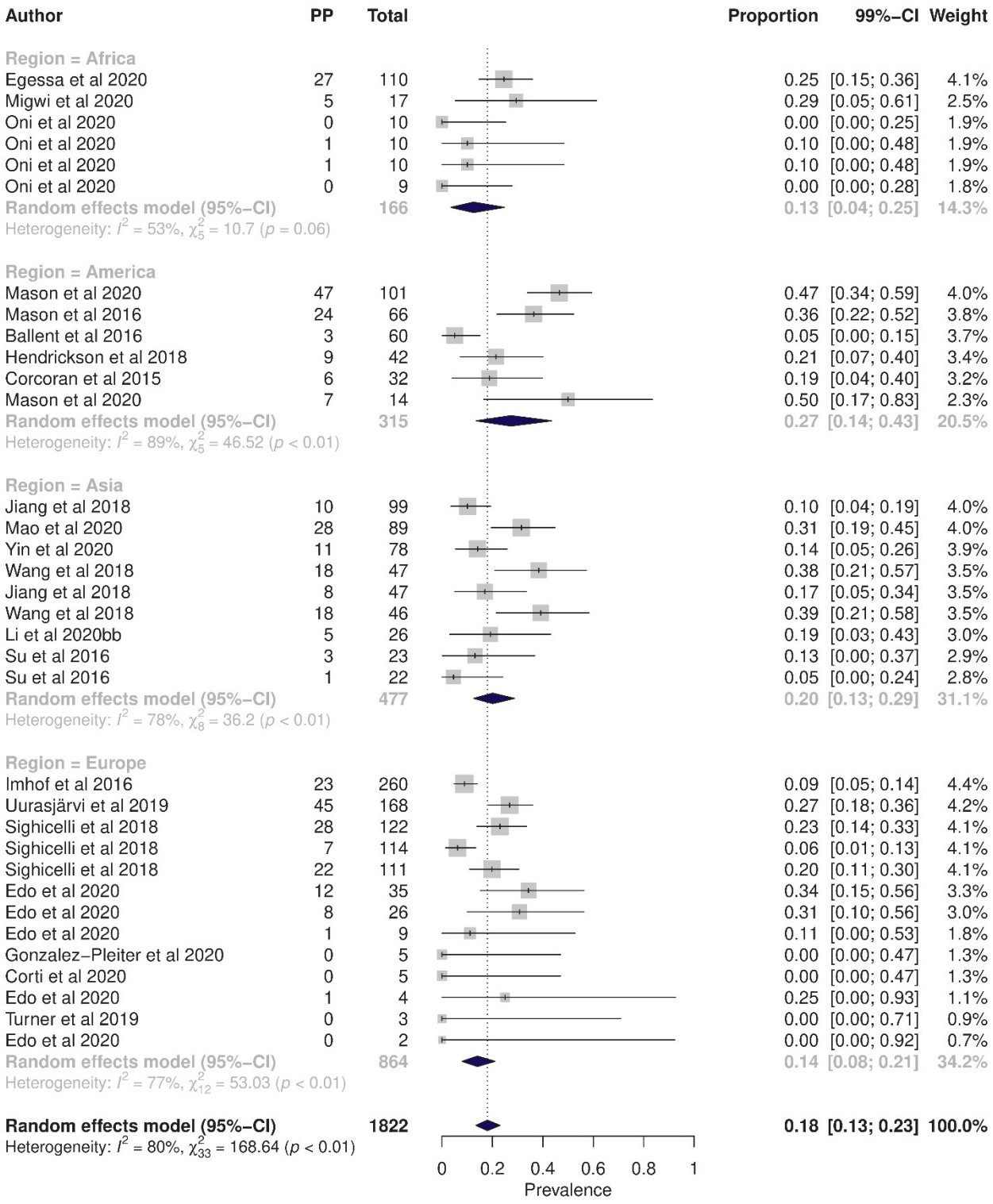

Figure S6. Forest plot for PP (Polypropylene) by sampling region. The plot shows the observed results and the estimation of the random effects model for the types of microplastic polymers.