# Supplementary Mterials: A Meta-Analysis of the Characterisations of Plastic Ingested by Fish Globally

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**Figure S1.** Funnel plot for the prevalence of plastic's shapes ingested by fish from all environments. Studies are represented by full circles and imputed studies are represented by empty circles.

**Figure S2.** Funnel plot for the prevalence of plastic's colours ingested by fish from all environments. Studies are represented by full circles and imputed studies are represented by empty circles.
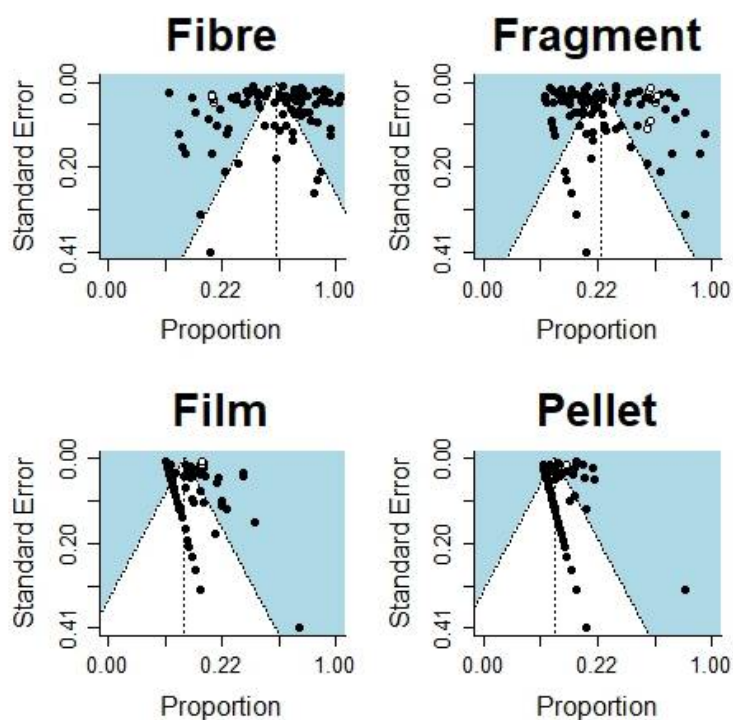
**Figure S3.** Funnel plot for the prevalence of plastic's polymer type ingested by fish from all environments. Studies are represented by full circles and imputed studies are represented by empty circles. PE: Polyethylene; PP: Polypropylene; PES: Polyester; PA: Polyamide; PS: Polystyrene.
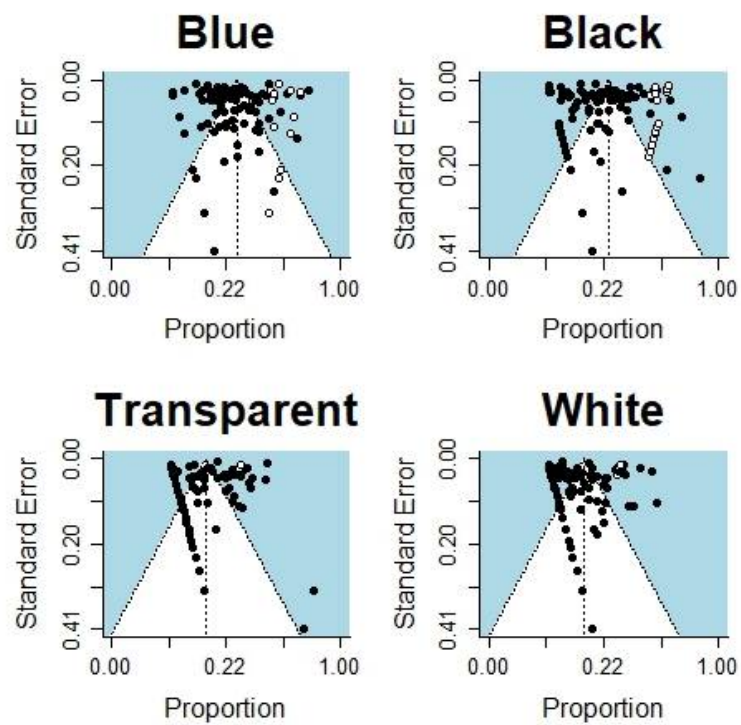
| Study | Fibre | Total | Proportion | 95%-CI | Weight |
|---|---|---|---|---|---|
| **Seawater** | | | | | |
| Cannon et al., 2016 | 0 | 2 | 0.00 | [0.00; 0.84] | 0.6% |
| Rummel et al., 2016 | 4 | 23 | 0.17 | [0.05; 0.39] | 1.0% |
| Tanaka & Tadaka, 2016 | 9 | 173 | 0.05 | [0.02; 0.10] | 1.1% |
| Alomar & Deudero, 2017 | 43 | 50 | 0.86 | [0.73; 0.94] | 1.1% |
| Alomar et al., 2017 | 160 | 165 | 0.97 | [0.93; 0.99] | 1.1% |
| Hermsen et al., 2017 | 0 | 2 | 0.00 | [0.00; 0.84] | 0.6% |
| Melvin, 2017 | 5 | 7 | 0.71 | [0.29; 0.96] | 0.9% |
| Murphy et al., 2017 | 98 | 118 | 0.83 | [0.75; 0.89] | 1.1% |
| Ory et al., 2017 | 3 | 48 | 0.06 | [0.01; 0.17] | 1.1% |
| Peters et al., 2017 & 2018 | 986 | 1141 | 0.86 | [0.84; 0.88] | 1.1% |
| Steer et al., 2017 | 10 | 12 | 0.83 | [0.52; 0.98] | 1.0% |
| Baalkhuyur et al., 2018 | 25 | 26 | 0.96 | [0.80; 1.00] | 1.0% |
| Chagnon et al., 2018 | 0 | 16 | 0.00 | [0.00; 0.21] | 1.0% |
| Compa et al., 2018 | 34 | 41 | 0.83 | [0.68; 0.93] | 1.1% |
| Digka et al., 2018 | 12 | 57 | 0.21 | [0.11; 0.34] | 1.1% |
| Hipfner et al., 2018 | 106 | 106 | 1.00 | [0.97; 1.00] | 1.1% |
| Karthik et al., 2018 | 1 | 8 | 0.12 | [0.00; 0.53] | 0.9% |
| Kroon et al., 2018 | 112 | 115 | 0.97 | [0.93; 0.99] | 1.1% |
| Kühn et al., 2018 | 0 | 8 | 0.00 | [0.00; 0.37] | 0.9% |
| Morgana et al., 2018 | 36 | 41 | 0.88 | [0.74; 0.96] | 1.1% |
| Nelms et al., 2018 | 13 | 18 | 0.72 | [0.47; 0.90] | 1.0% |
| Ory et al., 2018 | 2 | 6 | 0.33 | [0.04; 0.78] | 0.9% |
| Wieczorek et al., 2018 | 443 | 452 | 0.98 | [0.96; 0.99] | 1.1% |
| Ding et al., 2019a | 65 | 97 | 0.67 | [0.57; 0.76] | 1.1% |
| Garcia–Garin et al., 2019 | 37 | 92 | 0.40 | [0.30; 0.51] | 1.1% |
| Gove et al., 2019 | 27 | 29 | 0.93 | [0.77; 0.99] | 1.1% |
| Hossain et al., 2019 | 235 | 443 | 0.53 | [0.48; 0.58] | 1.1% |
| Jensen et al., 2019 | 447 | 455 | 0.98 | [0.97; 0.99] | 1.1% |
| Lefebvre et al., 2019 | 19 | 19 | 1.00 | [0.82; 1.00] | 1.0% |
| Liboiron et al., 2019 | 19 | 19 | 1.00 | [0.82; 1.00] | 1.0% |
| Pozo et al., 2019 | 5 | 5 | 1.00 | [0.48; 1.00] | 0.8% |
| Savoca et al., 2019 | 4 | 4 | 1.00 | [0.40; 1.00] | 0.8% |
| Valente et al., 2019 | 221 | 258 | 0.86 | [0.81; 0.90] | 1.1% |
| Baalkhuyur et al., 2020 | 246 | 254 | 0.97 | [0.94; 0.99] | 1.1% |
| Borges–Ramírez et al., 2020 | 138 | 316 | 0.44 | [0.38; 0.49] | 1.1% |
| Capillo et al., 2020 | 4 | 31 | 0.13 | [0.04; 0.30] | 1.1% |
| Crutchett et al., 2020 | 208 | 251 | 0.83 | [0.78; 0.87] | 1.1% |
| Dantas et al., 2020 | 267 | 327 | 0.82 | [0.77; 0.86] | 1.1% |
| de Vries et al., 2020 | 13 | 22 | 0.59 | [0.36; 0.79] | 1.0% |
| Klangnurak & Chunniyom, 2020 | 32 | 43 | 0.74 | [0.59; 0.86] | 1.1% |
| Lopes et al., 2020 | 154 | 193 | 0.80 | [0.73; 0.85] | 1.1% |
| Neto et al., 2020 | 124 | 210 | 0.59 | [0.52; 0.66] | 1.1% |
| Parton et al., 2020 | 365 | 377 | 0.97 | [0.95; 0.98] | 1.1% |
| Peda et al., 2020 | 5 | 19 | 0.26 | [0.09; 0.51] | 1.0% |
| Pereira et al., 2020 | 84 | 242 | 0.35 | [0.29; 0.41] | 1.1% |
| Robin et al., 2020 | 17 | 22 | 0.77 | [0.55; 0.92] | 1.0% |
| Sathish et al., 2020 | 123 | 174 | 0.71 | [0.63; 0.77] | 1.1% |
| Sbrana et al., 2020 | 592 | 681 | 0.87 | [0.84; 0.89] | 1.1% |
| Schirinzi et al., 2020b | 45 | 106 | 0.42 | [0.33; 0.52] | 1.1% |
| Tsangaris et al., 2020 | 851 | 1038 | 0.82 | [0.80; 0.84] | 1.1% |
| Wu et al., 2020a | 44 | 49 | 0.90 | [0.78; 0.97] | 1.1% |
| Zhang et al., 2020c | 117 | 140 | 0.84 | [0.76; 0.89] | 1.1% |
| Bayo et al., 2021 | 200 | 279 | 0.72 | [0.66; 0.77] | 1.1% |
| Bottari et al., 2021 | 54 | 180 | 0.30 | [0.23; 0.37] | 1.1% |
| Chen et al., 2021b | 90 | 104 | 0.87 | [0.78; 0.92] | 1.1% |
| Chenet et al., 2021 | 179 | 387 | 0.46 | [0.41; 0.51] | 1.1% |
| Esposito et al., 2021 | 15 | 22 | 0.68 | [0.45; 0.86] | 1.0% |
| Fernandez–Ojeda et al., 2021 | 0 | 10 | 0.00 | [0.00; 0.31] | 1.0% |
| Ghosh et al., 2021 | 115 | 215 | 0.53 | [0.47; 0.60] | 1.1% |
| Macieira et al., 2021 | 82 | 87 | 0.94 | [0.87; 0.98] | 1.1% |
| Nematollahi et al., 2021 | 111 | 111 | 1.00 | [0.97; 1.00] | 1.1% |
| Nunes et al., 2021 | 45 | 140 | 0.32 | [0.25; 0.41] | 1.1% |
| Paler et al., 2021 | 1 | 5 | 0.20 | [0.01; 0.72] | 0.8% |
| Pegado et al., 2021 | 14 | 17 | 0.82 | [0.57; 0.96] | 1.0% |
| Phaksopa et al., 2021 | 34 | 39 | 0.87 | [0.73; 0.96] | 1.1% |
| Selvam et al., 2021 | 48 | 307 | 0.16 | [0.12; 0.20] | 1.1% |
| Yagi et al., 2021 | 46 | 135 | 0.34 | [0.26; 0.43] | 1.1% |
| Random effects model | | 10589 | 0.67 | [0.58; 0.76] | 70.2% |
| Heterogeneity: $I^2 = 98\%$, $\tau^2 = 0.1393$, $p = 0$ | | | | | |
| | | | | | |
| **Estuarine** | | | | | |
| Bessa et al., 2018 | 151 | 157 | 0.96 | [0.92; 0.99] | 1.1% |
| Pozo et al., 2019 | 15 | 15 | 1.00 | [0.78; 1.00] | 1.0% |
| Garces–Ordonez et al., 2020 | 38 | 69 | 0.55 | [0.43; 0.67] | 1.1% |
| Lin et al., 2020 | 163 | 168 | 0.97 | [0.93; 0.99] | 1.1% |
| Naidoo et al., 2020 | 105 | 137 | 0.77 | [0.69; 0.83] | 1.1% |
| Liu et al., 2021 | 216 | 240 | 0.90 | [0.85; 0.93] | 1.1% |
| Rasta et al., 2021 | 158 | 208 | 0.76 | [0.70; 0.82] | 1.1% |
| Random effects model | | 994 | 0.87 | [0.74; 0.96] | 7.6% |
| Heterogeneity: $I^2 = 95\%$, $\tau^2 = 0.0447$, $p < 0.01$ | | | | | |
| | | | | | |
| **Freshwater** | | | | | |
| McNeish et al., 2018 | 794 | 819 | 0.97 | [0.96; 0.98] | 1.1% |
| Andrade et al., 2019 | 51 | 96 | 0.53 | [0.43; 0.63] | 1.1% |
| Slootmaekers et al., 2019 | 4 | 16 | 0.25 | [0.07; 0.52] | 1.0% |
| Zheng et al., 2019 | 957 | 1945 | 0.49 | [0.47; 0.51] | 1.1% |
| Bosshart et al., 2020 | 0 | 1 | 0.00 | [0.00; 0.98] | 0.5% |
| Merga et al., 2020 | 238 | 560 | 0.42 | [0.38; 0.47] | 1.1% |
| Abidli et al., 2021 | 609 | 981 | 0.62 | [0.59; 0.65] | 1.1% |
| Atamanalp et al., 2021a | 204 | 232 | 0.88 | [0.83; 0.92] | 1.1% |
| Atici et al., 2021 | 2470 | 3338 | 0.74 | [0.72; 0.75] | 1.1% |
| Galafassi et al., 2021 | 0 | 394 | 0.00 | [0.00; 0.01] | 1.1% |
| Garcia et al., 2021a | 49 | 61 | 0.80 | [0.68; 0.89] | 1.1% |
| Hou et al., 2021 | 170 | 170 | 1.00 | [0.98; 1.00] | 1.1% |
| Kumkar et al., 2021 | 254 | 254 | 1.00 | [0.99; 1.00] | 1.1% |
| Martinez–Tavera et al., 2021 | 139 | 139 | 1.00 | [0.97; 1.00] | 1.1% |
| McIlwraith et al., 2021 | 485 | 516 | 0.94 | [0.92; 0.96] | 1.1% |
| Toner and Midway, 2021 | 3 | 3 | 1.00 | [0.29; 1.00] | 0.7% |
| Random effects model | | 9525 | 0.75 | [0.53; 0.93] | 16.7% |
| Heterogeneity: $I^2 = 100\%$, $\tau^2 = 0.1821$, $p = 0$ | | | | | |
| | | | | | |
| **Aquaculture** | | | | | |
| Reinold et al., 2021 | 99 | 118 | 0.84 | [0.76; 0.90] | 1.1% |
| Savoca et al., 2021 | 44 | 48 | 0.92 | [0.80; 0.98] | 1.1% |
| Random effects model | | 166 | 0.87 | [0.79; 0.93] | 2.2% |
| Heterogeneity: $I^2 = 39\%$, $\tau^2 = 0.0023$, $p = 0.20$ | | | | | |
| | | | | | |
| **Market** | | | | | |
| Ding et al., 2019b | 107 | 123 | 0.87 | [0.80; 0.92] | 1.1% |
| Fang et al., 2019 | 110 | 111 | 0.99 | [0.95; 1.00] | 1.1% |
| Parvin et al., 2021 | 82 | 107 | 0.77 | [0.67; 0.84] | 1.1% |
| Random effects model | | 341 | 0.90 | [0.72; 0.99] | 3.3% |
| Heterogeneity: $I^2 = 94\%$, $\tau^2 = 0.0377$, $p < 0.01$ | | | | | |
| | | | | | |
| Random effects model | | 21615 | 0.72 | [0.64; 0.79] | 100.0% |
| Heterogeneity: $I^2 = 99\%$, $\tau^2 = 0.1375$, $p = 0$ | | | | | |
| Test for subgroup differences: $\chi^2_4 = 18.31$, df = 4 ($p < 0.01$) | | | | | |

**Figure S4.** Forest plot for fibre subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. Fibre: number of fibre found in each study.

**Figure S5.** Forest plot for fragment subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. Fragment: number of fragment found in each study.

**Figure S6.** Forest plot for film subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. Film: number of film found in each study.

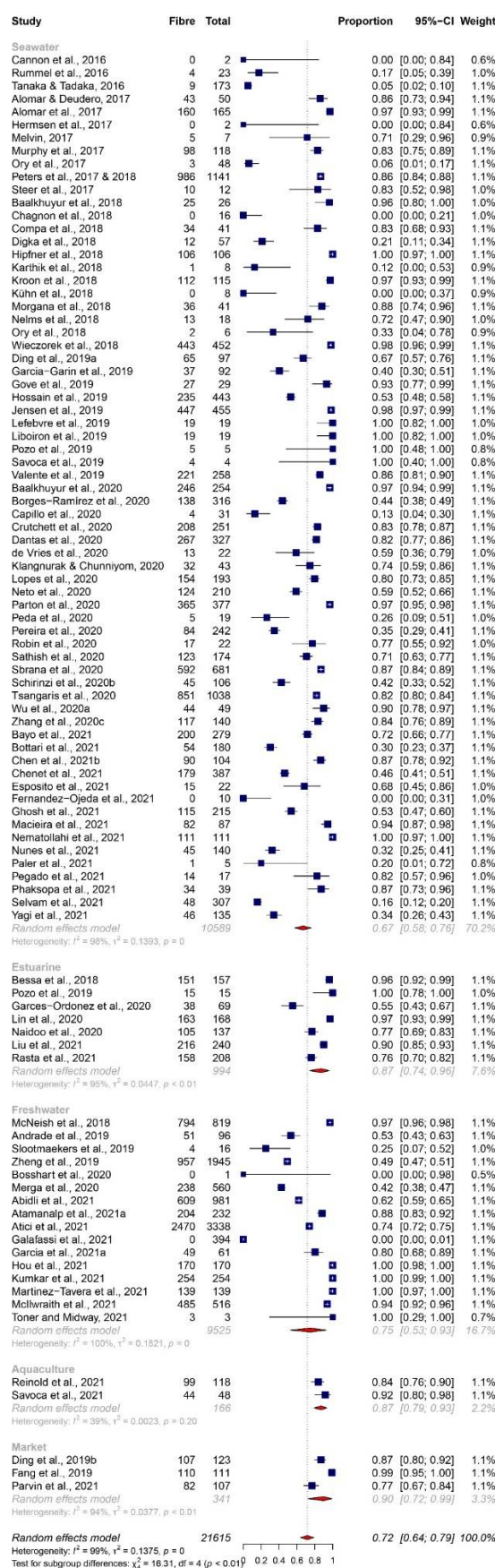| Study | Pellet | Total | Proportion | 95%-CI | Weight |
|---|---|---|---|---|---|
| **Seawater** | | | | | |
| Cannon et al., 2016 | 0 | 2 | 0.00 | [0.00; 0.84] | 0.1% |
| Rummel et al., 2016 | 1 | 23 | 0.04 | [0.00; 0.22] | 0.7% |
| Tanaka & Tadaka, 2016 | 13 | 173 | 0.08 | [0.04; 0.13] | 1.3% |
| Alomar & Deudero, 2017 | 0 | 50 | 0.00 | [0.00; 0.07] | 1.0% |
| Alomar et al., 2017 | 0 | 165 | 0.00 | [0.00; 0.02] | 1.3% |
| Hermsen et al., 2017 | 2 | 2 | 1.00 | [0.16; 1.00] | 0.1% |
| Melvin, 2017 | 0 | 7 | 0.00 | [0.00; 0.41] | 0.3% |
| Murphy et al., 2017 | 16 | 118 | 0.14 | [0.08; 0.21] | 1.2% |
| Ory et al., 2017 | 0 | 48 | 0.00 | [0.00; 0.07] | 1.0% |
| Peters et al., 2017 & 2018 | 147 | 1141 | 0.13 | [0.11; 0.15] | 1.5% |
| Steer et al., 2017 | 0 | 12 | 0.00 | [0.00; 0.26] | 0.5% |
| Baalkhuyur et al., 2018 | 0 | 26 | 0.00 | [0.00; 0.13] | 0.8% |
| Chagnon et al., 2018 | 0 | 16 | 0.00 | [0.00; 0.21] | 0.6% |
| Compa et al., 2018 | 0 | 41 | 0.00 | [0.00; 0.09] | 0.9% |
| Digka et al., 2018 | 0 | 57 | 0.00 | [0.00; 0.06] | 1.0% |
| Hipfner et al., 2018 | 0 | 106 | 0.00 | [0.00; 0.03] | 1.2% |
| Karthik et al., 2018 | 0 | 8 | 0.00 | [0.00; 0.37] | 0.4% |
| Kroon et al., 2018 | 0 | 115 | 0.00 | [0.00; 0.03] | 1.2% |
| Kühn et al., 2018 | 0 | 8 | 0.00 | [0.00; 0.37] | 0.4% |
| Morgana et al., 2018 | 0 | 41 | 0.00 | [0.00; 0.09] | 0.9% |
| Nelms et al., 2018 | 0 | 18 | 0.00 | [0.00; 0.19] | 0.6% |
| Ory et al., 2018 | 0 | 6 | 0.00 | [0.00; 0.46] | 0.3% |
| Wieczorek et al., 2018 | 0 | 452 | 0.00 | [0.00; 0.01] | 1.4% |
| Ding et al., 2019a | 20 | 97 | 0.21 | [0.13; 0.30] | 1.2% |
| Garcia-Garin et al., 2019 | 1 | 92 | 0.01 | [0.00; 0.06] | 1.2% |
| Gove et al., 2019 | 2 | 29 | 0.07 | [0.01; 0.23] | 0.8% |
| Hossain et al., 2019 | 87 | 443 | 0.20 | [0.16; 0.24] | 1.4% |
| Jensen et al., 2019 | 0 | 455 | 0.00 | [0.00; 0.01] | 1.4% |
| Lefebvre et al., 2019 | 0 | 19 | 0.00 | [0.00; 0.18] | 0.7% |
| Liboiron et al., 2019 | 0 | 19 | 0.00 | [0.00; 0.18] | 0.7% |
| Pozo et al., 2019 | 0 | 5 | 0.00 | [0.00; 0.52] | 0.3% |
| Savoca et al., 2019 | 0 | 4 | 0.00 | [0.00; 0.60] | 0.2% |
| Valente et al., 2019 | 4 | 258 | 0.02 | [0.00; 0.04] | 1.4% |
| Baalkhuyur et al., 2020 | 0 | 254 | 0.00 | [0.00; 0.01] | 1.4% |
| Borges-Ramírez et al., 2020 | 24 | 316 | 0.08 | [0.05; 0.11] | 1.4% |
| Capillo et al., 2020 | 0 | 31 | 0.00 | [0.00; 0.11] | 0.8% |
| Crutchett et al., 2020 | 13 | 251 | 0.05 | [0.03; 0.09] | 1.4% |
| Dantas et al., 2020 | 14 | 327 | 0.04 | [0.02; 0.07] | 1.4% |
| de Vries et al., 2020 | 0 | 22 | 0.00 | [0.00; 0.15] | 0.7% |
| Klangnurak & Chunniyom, 2020 | 0 | 43 | 0.00 | [0.00; 0.08] | 1.0% |
| Lopes et al., 2020 | 0 | 193 | 0.00 | [0.00; 0.02] | 1.3% |
| Neto et al., 2020 | 8 | 210 | 0.04 | [0.02; 0.07] | 1.4% |
| Parton et al., 2020 | 0 | 377 | 0.00 | [0.00; 0.01] | 1.4% |
| Peda et al., 2020 | 0 | 19 | 0.00 | [0.00; 0.18] | 0.7% |
| Pereira et al., 2020 | 0 | 242 | 0.00 | [0.00; 0.02] | 1.4% |
| Robin et al., 2020 | 0 | 22 | 0.00 | [0.00; 0.15] | 0.7% |
| Sathish et al., 2020 | 0 | 174 | 0.00 | [0.00; 0.02] | 1.3% |
| Sbrana et al., 2020 | 7 | 681 | 0.01 | [0.00; 0.02] | 1.5% |
| Schirinzi et al., 2020b | 0 | 106 | 0.00 | [0.00; 0.03] | 1.2% |
| Tsangaris et al., 2020 | 6 | 1038 | 0.01 | [0.00; 0.01] | 1.5% |
| Wu et al., 2020a | 0 | 49 | 0.00 | [0.00; 0.07] | 1.0% |
| Zhang et al., 2020c | 0 | 140 | 0.00 | [0.00; 0.03] | 1.3% |
| Bayo et al., 2021 | 1 | 279 | 0.00 | [0.00; 0.02] | 1.4% |
| Bottari et al., 2021 | 0 | 180 | 0.00 | [0.00; 0.02] | 1.3% |
| Chen et al., 2021b | 0 | 104 | 0.00 | [0.00; 0.03] | 1.2% |
| Chenet et al., 2021 | 0 | 387 | 0.00 | [0.00; 0.01] | 1.4% |
| Esposito et al., 2021 | 0 | 22 | 0.00 | [0.00; 0.15] | 0.7% |
| Fernandez-Ojeda et al., 2021 | 0 | 10 | 0.00 | [0.00; 0.31] | 0.4% |
| Ghosh et al., 2021 | 3 | 215 | 0.01 | [0.00; 0.04] | 1.4% |
| Macieira et al., 2021 | 0 | 87 | 0.00 | [0.00; 0.04] | 1.2% |
| Nematollahi et al., 2021 | 0 | 111 | 0.00 | [0.00; 0.03] | 1.2% |
| Nunes et al., 2021 | 0 | 140 | 0.00 | [0.00; 0.03] | 1.3% |
| Paler et al., 2021 | 0 | 5 | 0.00 | [0.00; 0.52] | 0.3% |
| Pegado et al., 2021 | 0 | 17 | 0.00 | [0.00; 0.20] | 0.6% |
| Phaksopa et al., 2021 | 0 | 39 | 0.00 | [0.00; 0.09] | 0.9% |
| Selvam et al., 2021 | 0 | 307 | 0.00 | [0.00; 0.01] | 1.4% |
| Yagi et al., 2021 | 0 | 135 | 0.00 | [0.00; 0.03] | 1.3% |
| *Random effects model* | | *10589* | *0.00* | *[0.00; 0.01]* | *67.0%* |
| Heterogeneity: $I^2 = 92\%$, $\tau^2 = 0.0106$, $p < 0.01$ | | | | | |
| | | | | | |
| **Estuarine** | | | | | |
| Bessa et al., 2018 | 0 | 157 | 0.00 | [0.00; 0.02] | 1.3% |
| Pozo et al., 2019 | 0 | 15 | 0.00 | [0.00; 0.22] | 0.6% |
| Garces-Ordonez et al., 2020 | 0 | 69 | 0.00 | [0.00; 0.05] | 1.1% |
| Lin et al., 2020 | 0 | 168 | 0.00 | [0.00; 0.02] | 1.3% |
| Naidoo et al., 2020 | 0 | 137 | 0.00 | [0.00; 0.03] | 1.3% |
| Liu et al., 2021 | 0 | 240 | 0.00 | [0.00; 0.02] | 1.4% |
| Rasta et al., 2021 | 0 | 208 | 0.00 | [0.00; 0.02] | 1.4% |
| *Random effects model* | | *994* | *0.00* | *[0.00; 0.00]* | *8.3%* |
| Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 1.00$ | | | | | |
| | | | | | |
| **Freshwater** | | | | | |
| McNeish et al., 2018 | 0 | 819 | 0.00 | [0.00; 0.00] | 1.5% |
| Andrade et al., 2019 | 0 | 96 | 0.00 | [0.00; 0.04] | 1.2% |
| Slootmaekers et al., 2019 | 2 | 16 | 0.12 | [0.02; 0.38] | 0.6% |
| Zheng et al., 2019 | 41 | 1945 | 0.02 | [0.02; 0.03] | 1.5% |
| Bosshart et al., 2020 | 0 | 1 | 0.00 | [0.00; 0.98] | 0.1% |
| Merga et al., 2020 | 0 | 560 | 0.00 | [0.00; 0.01] | 1.5% |
| Abidli et al., 2021 | 0 | 981 | 0.00 | [0.00; 0.00] | 1.5% |
| Atamanalp et al., 2021a | 15 | 232 | 0.06 | [0.04; 0.10] | 1.4% |
| Atici et al., 2021 | 300 | 3338 | 0.09 | [0.08; 0.10] | 1.5% |
| Galafassi et al., 2021 | 32 | 394 | 0.08 | [0.06; 0.11] | 1.4% |
| Garcia et al., 2021a | 0 | 61 | 0.00 | [0.00; 0.06] | 1.1% |
| Hou et al., 2021 | 0 | 170 | 0.00 | [0.00; 0.02] | 1.3% |
| Kumkar et al., 2021 | 0 | 254 | 0.00 | [0.00; 0.01] | 1.4% |
| Martinez-Tavera et al., 2021 | 0 | 139 | 0.00 | [0.00; 0.03] | 1.3% |
| Mcllwraith et al., 2021 | 0 | 516 | 0.00 | [0.00; 0.01] | 1.4% |
| Toner and Midway, 2021 | 0 | 3 | 0.00 | [0.00; 0.71] | 0.2% |
| *Random effects model* | | *9525* | *0.00* | *[0.00; 0.00]* | *18.8%* |
| Heterogeneity: $I^2 = 97\%$, $\tau^2 = 0.0124$, $p < 0.01$ | | | | | |
| | | | | | |
| **Aquaculture** | | | | | |
| Reinold et al., 2021 | 0 | 118 | 0.00 | [0.00; 0.03] | 1.2% |
| Savoca et al., 2021 | 0 | 48 | 0.00 | [0.00; 0.07] | 1.0% |
| *Random effects model* | | *166* | *0.00* | *[0.00; 0.01]* | *2.2%* |
| Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.76$ | | | | | |
| | | | | | |
| **Market** | | | | | |
| Ding et al., 2019b | 3 | 123 | 0.02 | [0.01; 0.07] | 1.3% |
| Fang et al., 2019 | 0 | 111 | 0.00 | [0.00; 0.03] | 1.2% |
| Parvin et al., 2021 | 0 | 107 | 0.00 | [0.00; 0.03] | 1.2% |
| *Random effects model* | | *341* | *0.00* | *[0.00; 0.02]* | *3.7%* |
| Heterogeneity: $I^2 = 56\%$, $\tau^2 = 0.0027$, $p = 0.10$ | | | | | |
| | | | | | |
| *Random effects model* | | 21615 | 0.00 | [0.00; 0.00] | 100.0% |
| Heterogeneity: $I^2 = 94\%$, $\tau^2 = 0.0096$, $p < 0.01$ | | | | | |
| Test for subgroup differences: $\chi_4^2 = 16.45$, df = 4 ($p < 0.01$) | | | | | |

**Figure S7.** Forest plot for pellet subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. Pellet: number of pellet found in each study.
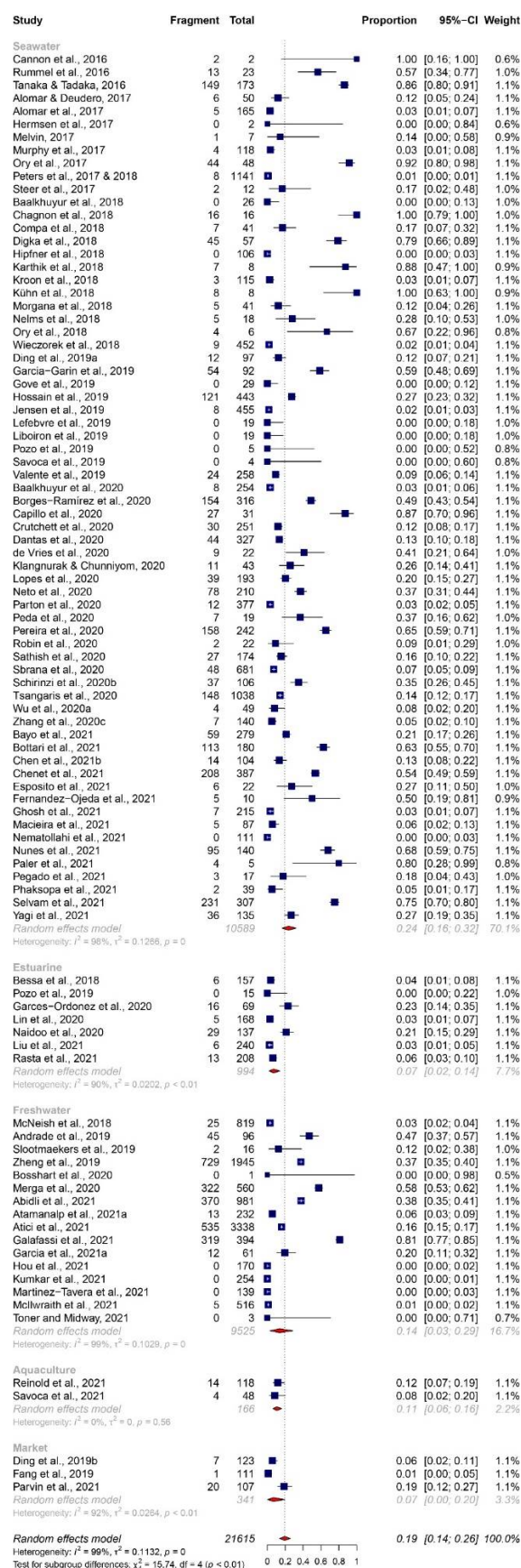
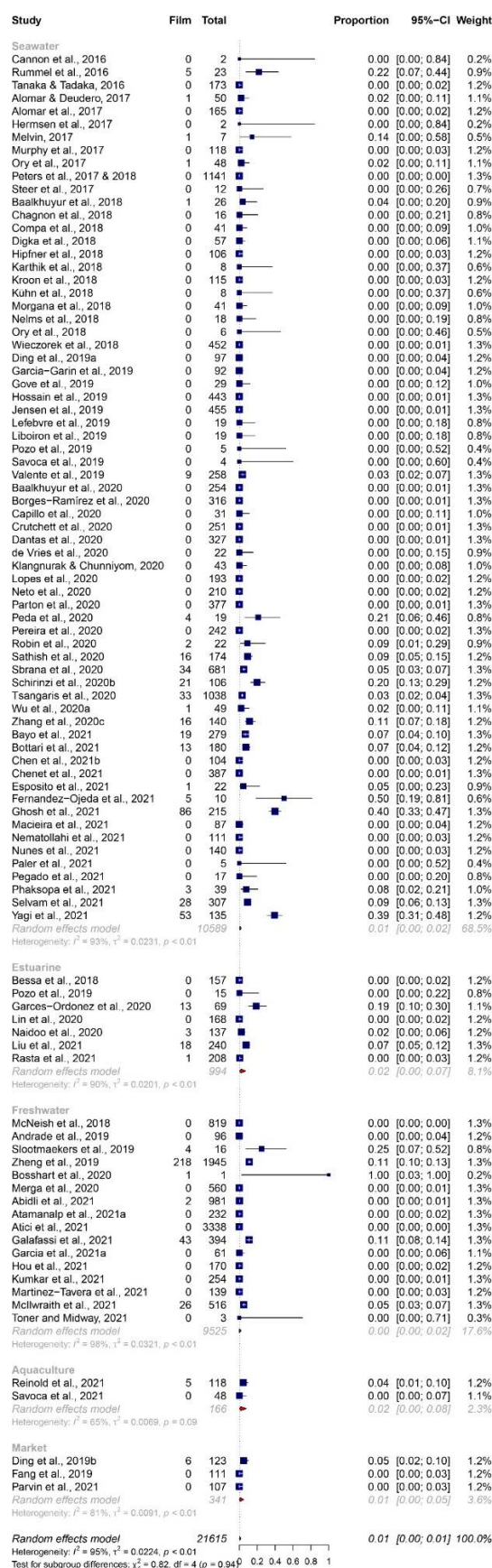| Study | Blue | Total | Proportion | 95%-CI | Weight |
|---|---|---|---|---|---|
| **Seawater** | | | | | |
| Cannon et al., 2016 | 0 | 2 | | 0.00 [0.00; 0.84] | 0.4% |
| Rummel et al., 2016 | 5 | 23 | | 0.22 [0.07; 0.44] | 1.0% |
| Tanaka & Tadaka, 2016 | 0 | 173 | | 0.00 [0.00; 0.02] | 1.2% |
| Alomar & Deudero, 2017 | 16 | 50 | | 0.32 [0.20; 0.47] | 1.1% |
| Alomar et al., 2017 | 50 | 165 | | 0.30 [0.23; 0.38] | 1.2% |
| Hermsen et al., 2017 | 0 | 2 | | 0.00 [0.00; 0.84] | 0.4% |
| Melvin, 2017 | 2 | 7 | | 0.29 [0.04; 0.71] | 0.7% |
| Murphy et al., 2017 | 16 | 118 | | 0.14 [0.08; 0.21] | 1.1% |
| Ory et al., 2017 | 20 | 48 | | 0.42 [0.28; 0.57] | 1.1% |
| Peters et al., 2017 & 2018 | 124 | 1141 | | 0.11 [0.09; 0.13] | 1.2% |
| Steer et al., 2017 | 10 | 12 | | 0.83 [0.52; 0.98] | 0.9% |
| Baalkhuyur et al., 2018 | 7 | 26 | | 0.27 [0.12; 0.48] | 1.0% |
| Chagnon et al., 2018 | 8 | 16 | | 0.50 [0.25; 0.75] | 0.9% |
| Compa et al., 2018 | 19 | 41 | | 0.46 [0.31; 0.63] | 1.1% |
| Digka et al., 2018 | 24 | 57 | | 0.42 [0.29; 0.56] | 1.1% |
| Hipfner et al., 2018 | 17 | 106 | | 0.16 [0.10; 0.24] | 1.1% |
| Karthik et al., 2018 | 4 | 8 | | 0.50 [0.16; 0.84] | 0.8% |
| Kroon et al., 2018 | 15 | 115 | | 0.13 [0.07; 0.21] | 1.1% |
| Kühn et al., 2018 | 4 | 8 | | 0.50 [0.16; 0.84] | 0.8% |
| Morgana et al., 2018 | 28 | 41 | | 0.68 [0.52; 0.82] | 1.1% |
| Nelms et al., 2018 | 5 | 18 | | 0.28 [0.10; 0.53] | 0.9% |
| Ory et al., 2018 | 1 | 6 | | 0.17 [0.00; 0.64] | 0.7% |
| Wieczorek et al., 2018 | 81 | 452 | | 0.18 [0.14; 0.22] | 1.2% |
| Ding et al., 2019a | 29 | 97 | | 0.30 [0.21; 0.40] | 1.1% |
| Garcia-Garin et al., 2019 | 46 | 92 | | 0.50 [0.39; 0.61] | 1.1% |
| Gove et al., 2019 | 17 | 29 | | 0.59 [0.39; 0.76] | 1.0% |
| Hossain et al., 2019 | 7 | 443 | | 0.02 [0.01; 0.03] | 1.2% |
| Jensen et al., 2019 | 54 | 455 | | 0.12 [0.09; 0.15] | 1.2% |
| Lefebvre et al., 2019 | 4 | 19 | | 0.21 [0.06; 0.46] | 0.9% |
| Liboiron et al., 2019 | 3 | 19 | | 0.16 [0.03; 0.40] | 0.9% |
| Pozo et al., 2019 | 0 | 5 | | 0.00 [0.00; 0.52] | 0.6% |
| Savoca et al., 2019 | 0 | 4 | | 0.00 [0.00; 0.60] | 0.6% |
| Valente et al., 2019 | 0 | 258 | | 0.00 [0.00; 0.01] | 1.2% |
| Baalkhuyur et al., 2020 | 102 | 254 | | 0.40 [0.34; 0.46] | 1.2% |
| Borges-Ramírez et al., 2020 | 42 | 316 | | 0.13 [0.10; 0.18] | 1.2% |
| Capillo et al., 2020 | 0 | 31 | | 0.00 [0.00; 0.11] | 1.0% |
| Crutchett et al., 2020 | 17 | 251 | | 0.07 [0.04; 0.11] | 1.2% |
| Dantas et al., 2020 | 121 | 327 | | 0.37 [0.32; 0.42] | 1.2% |
| de Vries et al., 2020 | 8 | 22 | | 0.36 [0.17; 0.59] | 1.0% |
| Klangnurak & Chunniyom, 2020 | 9 | 43 | | 0.21 [0.10; 0.36] | 1.1% |
| Lopes et al., 2020 | 81 | 193 | | 0.42 [0.35; 0.49] | 1.2% |
| Neto et al., 2020 | 0 | 210 | | 0.00 [0.00; 0.02] | 1.2% |
| Parton et al., 2020 | 332 | 377 | | 0.88 [0.84; 0.91] | 1.2% |
| Peda et al., 2020 | 1 | 19 | | 0.05 [0.00; 0.26] | 0.9% |
| Pereira et al., 2020 | 84 | 242 | | 0.35 [0.29; 0.41] | 1.2% |
| Robin et al., 2020 | 2 | 22 | | 0.09 [0.01; 0.29] | 1.0% |
| Sathish et al., 2020 | 96 | 174 | | 0.55 [0.47; 0.63] | 1.2% |
| Sbrana et al., 2020 | 143 | 681 | | 0.21 [0.18; 0.24] | 1.2% |
| Schirinzi et al., 2020b | 21 | 106 | | 0.20 [0.13; 0.29] | 1.1% |
| Tsangaris et al., 2020 | 227 | 1038 | | 0.22 [0.19; 0.25] | 1.2% |
| Wu et al., 2020a | 14 | 49 | | 0.29 [0.17; 0.43] | 1.1% |
| Zhang et al., 2020c | 68 | 140 | | 0.49 [0.40; 0.57] | 1.1% |
| Bayo et al., 2021 | 65 | 279 | | 0.23 [0.18; 0.29] | 1.2% |
| Bottari et al., 2021 | 23 | 180 | | 0.13 [0.08; 0.19] | 1.2% |
| Chen et al., 2021b | 8 | 104 | | 0.08 [0.03; 0.15] | 1.1% |
| Chenet et al., 2021 | 97 | 387 | | 0.25 [0.21; 0.30] | 1.2% |
| Esposito et al., 2021 | 11 | 22 | | 0.50 [0.28; 0.72] | 1.0% |
| Fernandez-Ojeda et al., 2021 | 3 | 10 | | 0.30 [0.07; 0.65] | 0.8% |
| Ghosh et al., 2021 | 41 | 215 | | 0.19 [0.14; 0.25] | 1.2% |
| Macieira et al., 2021 | 15 | 87 | | 0.17 [0.10; 0.27] | 1.1% |
| Nematollahi et al., 2021 | 14 | 111 | | 0.13 [0.07; 0.20] | 1.1% |
| Nunes et al., 2021 | 26 | 140 | | 0.19 [0.13; 0.26] | 1.1% |
| Paler et al., 2021 | 0 | 5 | | 0.00 [0.00; 0.52] | 0.6% |
| Pegado et al., 2021 | 8 | 17 | | 0.47 [0.23; 0.72] | 0.9% |
| Phaksopa et al., 2021 | 6 | 39 | | 0.15 [0.06; 0.31] | 1.1% |
| Selvam et al., 2021 | 62 | 307 | | 0.20 [0.16; 0.25] | 1.2% |
| Yagi et al., 2021 | 25 | 135 | | 0.19 [0.12; 0.26] | 1.1% |
| *Random effects model* | | *10589* | | *0.23 [0.18; 0.28]* | *68.9%* |
| Heterogeneity: $I^2 = 97\%$, $\tau^2 = 0.0503$, $p = 0$ | | | | | |
| | | | | | |
| **Estuarine** | | | | | |
| Bessa et al., 2018 | 74 | 157 | | 0.47 [0.39; 0.55] | 1.2% |
| Pozo et al., 2019 | 0 | 15 | | 0.00 [0.00; 0.22] | 0.9% |
| Garces-Ordonez et al., 2020 | 25 | 69 | | 0.36 [0.25; 0.49] | 1.1% |
| Lin et al., 2020 | 34 | 168 | | 0.20 [0.14; 0.27] | 1.2% |
| Naidoo et al., 2020 | 86 | 137 | | 0.63 [0.54; 0.71] | 1.1% |
| Liu et al., 2021 | 126 | 240 | | 0.52 [0.46; 0.59] | 1.2% |
| Rasta et al., 2021 | 44 | 208 | | 0.21 [0.16; 0.27] | 1.2% |
| *Random effects model* | | *994* | | *0.33 [0.16; 0.52]* | *7.8%* |
| Heterogeneity: $I^2 = 95\%$, $\tau^2 = 0.0622$, $p < 0.01$ | | | | | |
| | | | | | |
| **Freshwater** | | | | | |
| McNeish et al., 2018 | 279 | 819 | | 0.34 [0.31; 0.37] | 1.2% |
| Andrade et al., 2019 | 19 | 96 | | 0.20 [0.12; 0.29] | 1.1% |
| Slootmaekers et al., 2019 | 2 | 16 | | 0.12 [0.02; 0.38] | 0.9% |
| Zheng et al., 2019 | 103 | 1945 | | 0.05 [0.04; 0.06] | 1.2% |
| Bosshart et al., 2020 | 0 | 535 | | 0.00 [0.00; 0.01] | 1.2% |
| Merga et al., 2020 | 207 | 560 | | 0.37 [0.33; 0.41] | 1.2% |
| Abidli et al., 2021 | 169 | 981 | | 0.17 [0.15; 0.20] | 1.2% |
| Atamanalp et al., 2021a | 63 | 232 | | 0.27 [0.22; 0.33] | 1.2% |
| Atici et al., 2021 | 1936 | 3338 | | 0.58 [0.56; 0.60] | 1.2% |
| Galafassi et al., 2021 | 32 | 394 | | 0.08 [0.06; 0.11] | 1.2% |
| Garcia et al., 2021a | 11 | 61 | | 0.18 [0.09; 0.30] | 1.1% |
| Hou et al., 2021 | 52 | 170 | | 0.31 [0.24; 0.38] | 1.2% |
| Kumkar et al., 2021 | 187 | 254 | | 0.74 [0.68; 0.79] | 1.2% |
| Martinez-Tavera et al., 2021 | 26 | 139 | | 0.19 [0.13; 0.26] | 1.1% |
| McIlwraith et al., 2021 | 148 | 516 | | 0.29 [0.25; 0.33] | 1.2% |
| Toner and Midway, 2021 | 2 | 3 | | 0.67 [0.09; 0.99] | 0.5% |
| *Random effects model* | | *10059* | | *0.24 [0.14; 0.36]* | *17.7%* |
| Heterogeneity: $I^2 = 100\%$, $\tau^2 = 0.0598$, $p = 0$ | | | | | |
| | | | | | |
| **Aquaculture** | | | | | |
| Reinold et al., 2021 | 31 | 118 | | 0.26 [0.19; 0.35] | 1.1% |
| Savoca et al., 2021 | 21 | 48 | | 0.44 [0.29; 0.59] | 1.1% |
| *Random effects model* | | *166* | | *0.34 [0.18; 0.52]* | *2.2%* |
| Heterogeneity: $I^2 = 78\%$, $\tau^2 = 0.0132$, $p = 0.03$ | | | | | |
| | | | | | |
| **Market** | | | | | |
| Ding et al., 2019b | 21 | 123 | | 0.17 [0.11; 0.25] | 1.1% |
| Fang et al., 2019 | 53 | 111 | | 0.48 [0.38; 0.57] | 1.1% |
| Parvin et al., 2021 | 17 | 107 | | 0.16 [0.10; 0.24] | 1.1% |
| *Random effects model* | | *341* | | *0.26 [0.09; 0.47]* | *3.4%* |
| Heterogeneity: $I^2 = 94\%$, $\tau^2 = 0.0366$, $p < 0.01$ | | | | | |
| | | | | | |
| **Random effects model** | | **22149** | | **0.24 [0.20; 0.29]** | **100.0%** |
| Heterogeneity: $I^2 = 98\%$, $\tau^2 = 0.0505$, $p = 0$ | | | | | |
| Test for subgroup differences: $\chi^2_4 = 2.13$, df = 4 ($p = 0.71$) | | | 0 0.2 0.4 0.6 0.8 1 | | |

**Figure S8.** Forest plot for blue subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. Blue: number of blue found in each study.

**Figure S9.** Forest plot for black subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. Black: number of black found in each study.
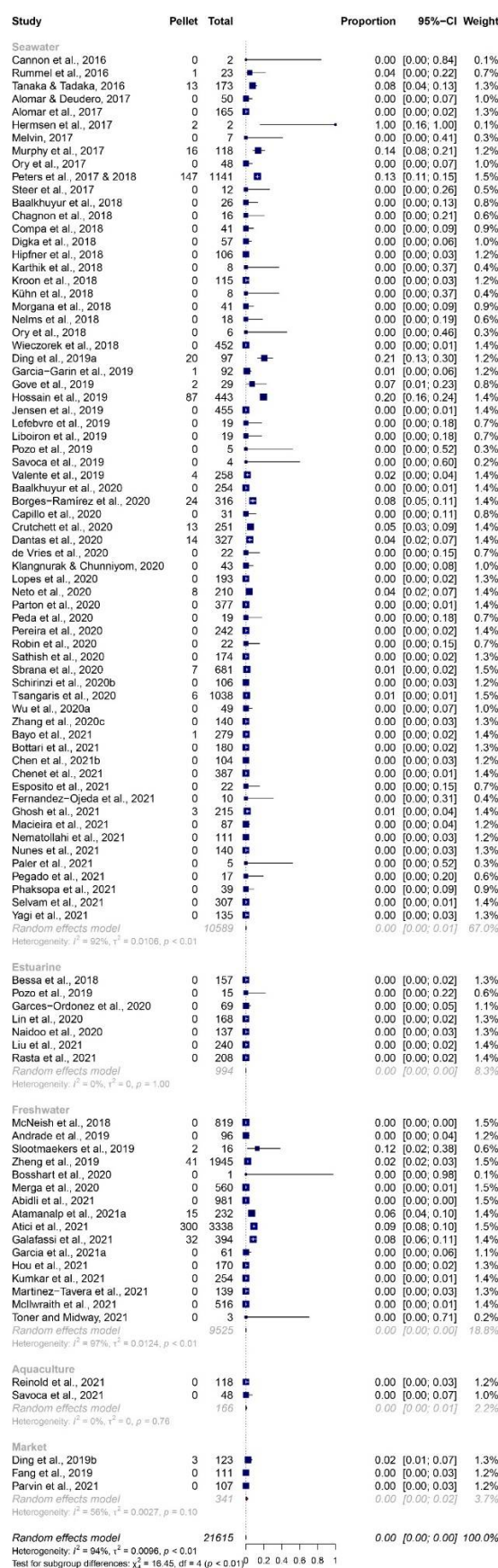
**Figure S10.** Forest plot for transparent subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. Transparent: number of transparent found in each study.

| Study | White | Total | Proportion | 95%-CI | Weight |
|---|---|---|---|---|---|
| **Seawater** | | | | | |
| Cannon et al., 2016 | 0 | 2 | 0.00 | [0.00; 0.84] | 0.4% |
| Rummel et al., 2016 | 4 | 23 | 0.17 | [0.05; 0.39] | 1.0% |
| Tanaka & Tadaka, 2016 | 69 | 173 | 0.40 | [0.33; 0.48] | 1.2% |
| Alomar & Deudero, 2017 | 2 | 50 | 0.04 | [0.00; 0.14] | 1.1% |
| Alomar et al., 2017 | 0 | 165 | 0.00 | [0.00; 0.02] | 1.2% |
| Hermsen et al., 2017 | 0 | 2 | 0.00 | [0.00; 0.84] | 0.4% |
| Melvin, 2017 | 1 | 7 | 0.14 | [0.00; 0.58] | 0.7% |
| Murphy et al., 2017 | 1 | 118 | 0.01 | [0.00; 0.05] | 1.1% |
| Ory et al., 2017 | 12 | 48 | 0.25 | [0.14; 0.40] | 1.1% |
| Peters et al., 2017 & 2018 | 0 | 1141 | 0.00 | [0.00; 0.00] | 1.2% |
| Steer et al., 2017 | 0 | 12 | 0.00 | [0.00; 0.26] | 0.8% |
| Baalkhuyur et al., 2018 | 3 | 26 | 0.12 | [0.02; 0.30] | 1.0% |
| Chagnon et al., 2018 | 1 | 16 | 0.06 | [0.00; 0.30] | 0.9% |
| Compa et al., 2018 | 3 | 41 | 0.07 | [0.02; 0.20] | 1.1% |
| Digka et al., 2018 | 0 | 57 | 0.00 | [0.00; 0.06] | 1.1% |
| Hipfner et al., 2018 | 26 | 106 | 0.25 | [0.17; 0.34] | 1.1% |
| Karthik et al., 2018 | 1 | 8 | 0.12 | [0.00; 0.53] | 0.7% |
| Kroon et al., 2018 | 29 | 115 | 0.25 | [0.18; 0.34] | 1.1% |
| Kühn et al., 2018 | 0 | 8 | 0.00 | [0.00; 0.37] | 0.7% |
| Morgana et al., 2018 | 2 | 41 | 0.05 | [0.01; 0.17] | 1.1% |
| Nelms et al., 2018 | 0 | 18 | 0.00 | [0.00; 0.19] | 0.9% |
| Ory et al., 2018 | 0 | 6 | 0.00 | [0.00; 0.46] | 0.7% |
| Wieczorek et al., 2018 | 0 | 452 | 0.00 | [0.00; 0.01] | 1.2% |
| Ding et al., 2019a | 23 | 97 | 0.24 | [0.16; 0.33] | 1.1% |
| Garcia-Garin et al., 2019 | 3 | 92 | 0.03 | [0.01; 0.09] | 1.1% |
| Gove et al., 2019 | 0 | 29 | 0.00 | [0.00; 0.12] | 1.0% |
| Hossain et al., 2019 | 234 | 443 | 0.53 | [0.48; 0.58] | 1.2% |
| Jensen et al., 2019 | 149 | 455 | 0.33 | [0.28; 0.37] | 1.2% |
| Lefebvre et al., 2019 | 9 | 19 | 0.47 | [0.24; 0.71] | 0.9% |
| Liboiron et al., 2019 | 9 | 19 | 0.47 | [0.24; 0.71] | 0.9% |
| Pozo et al., 2019 | 0 | 5 | 0.00 | [0.00; 0.52] | 0.6% |
| Savoca et al., 2019 | 0 | 4 | 0.00 | [0.00; 0.60] | 0.6% |
| Valente et al., 2019 | 0 | 258 | 0.00 | [0.00; 0.01] | 1.2% |
| Baalkhuyur et al., 2020 | 0 | 254 | 0.00 | [0.00; 0.01] | 1.2% |
| Borges-Ramírez et al., 2020 | 102 | 316 | 0.32 | [0.27; 0.38] | 1.2% |
| Capillo et al., 2020 | 1 | 31 | 0.03 | [0.00; 0.17] | 1.0% |
| Crutchett et al., 2020 | 8 | 251 | 0.03 | [0.01; 0.06] | 1.2% |
| Dantas et al., 2020 | 0 | 327 | 0.00 | [0.00; 0.01] | 1.2% |
| de Vries et al., 2020 | 0 | 22 | 0.00 | [0.00; 0.15] | 1.0% |
| Klangnurak & Chunniyom, 2020 | 0 | 43 | 0.00 | [0.00; 0.08] | 1.1% |
| Lopes et al., 2020 | 4 | 193 | 0.02 | [0.01; 0.05] | 1.2% |
| Neto et al., 2020 | 19 | 210 | 0.09 | [0.06; 0.14] | 1.2% |
| Parton et al., 2020 | 0 | 377 | 0.00 | [0.00; 0.01] | 1.2% |
| Peda et al., 2020 | 8 | 19 | 0.42 | [0.20; 0.67] | 0.9% |
| Pereira et al., 2020 | 0 | 242 | 0.00 | [0.00; 0.02] | 1.2% |
| Robin et al., 2020 | 15 | 22 | 0.68 | [0.45; 0.86] | 1.0% |
| Sathish et al., 2020 | 0 | 174 | 0.00 | [0.00; 0.02] | 1.2% |
| Sbrana et al., 2020 | 7 | 681 | 0.01 | [0.00; 0.02] | 1.2% |
| Schirinzi et al., 2020b | 17 | 106 | 0.16 | [0.10; 0.24] | 1.1% |
| Tsangaris et al., 2020 | 18 | 1038 | 0.02 | [0.01; 0.03] | 1.2% |
| Wu et al., 2020a | 6 | 49 | 0.12 | [0.05; 0.25] | 1.1% |
| Zhang et al., 2020c | 6 | 140 | 0.04 | [0.02; 0.09] | 1.2% |
| Bayo et al., 2021 | 177 | 279 | 0.63 | [0.57; 0.69] | 1.2% |
| Bottari et al., 2021 | 11 | 180 | 0.06 | [0.03; 0.11] | 1.2% |
| Chen et al., 2021b | 3 | 104 | 0.03 | [0.01; 0.08] | 1.1% |
| Chenet et al., 2021 | 58 | 387 | 0.15 | [0.12; 0.19] | 1.2% |
| Esposito et al., 2021 | 5 | 22 | 0.23 | [0.08; 0.45] | 1.0% |
| Fernandez-Ojeda et al., 2021 | 2 | 10 | 0.20 | [0.03; 0.56] | 0.8% |
| Ghosh et al., 2021 | 9 | 215 | 0.04 | [0.02; 0.08] | 1.2% |
| Macieira et al., 2021 | 0 | 87 | 0.00 | [0.00; 0.04] | 1.1% |
| Nematollahi et al., 2021 | 4 | 111 | 0.04 | [0.01; 0.09] | 1.1% |
| Nunes et al., 2021 | 0 | 140 | 0.00 | [0.00; 0.03] | 1.2% |
| Paler et al., 2021 | 0 | 5 | 0.00 | [0.00; 0.52] | 0.6% |
| Pegado et al., 2021 | 0 | 17 | 0.00 | [0.00; 0.20] | 0.9% |
| Phaksopa et al., 2021 | 1 | 39 | 0.03 | [0.00; 0.13] | 1.1% |
| Selvam et al., 2021 | 114 | 307 | 0.37 | [0.32; 0.43] | 1.2% |
| Yagi et al., 2021 | 24 | 135 | 0.18 | [0.12; 0.25] | 1.1% |
| *Random effects model* | | *10589* | *0.07* | *[0.04; 0.11]* | *68.8%* |
| Heterogeneity: $I^2 = 98\%$, $\tau^2 = 0.0533$, $p = 0$ | | | | | |
| **Estuarine** | | | | | |
| Bessa et al., 2018 | 0 | 157 | 0.00 | [0.00; 0.02] | 1.2% |
| Pozo et al., 2019 | 3 | 15 | 0.20 | [0.04; 0.48] | 0.9% |
| Garces-Ordonez et al., 2020 | 7 | 69 | 0.10 | [0.04; 0.20] | 1.1% |
| Lin et al., 2020 | 24 | 168 | 0.14 | [0.09; 0.21] | 1.2% |
| Naidoo et al., 2020 | 11 | 137 | 0.08 | [0.04; 0.14] | 1.2% |
| Liu et al., 2021 | 85 | 240 | 0.35 | [0.29; 0.42] | 1.2% |
| Rasta et al., 2021 | 8 | 208 | 0.04 | [0.02; 0.07] | 1.2% |
| *Random effects model* | | *994* | *0.10* | *[0.03; 0.21]* | *7.8%* |
| Heterogeneity: $I^2 = 96\%$, $\tau^2 = 0.0349$, $p < 0.01$ | | | | | |
| **Freshwater** | | | | | |
| McNeish et al., 2018 | 313 | 819 | 0.38 | [0.35; 0.42] | 1.2% |
| Andrade et al., 2019 | 14 | 96 | 0.15 | [0.08; 0.23] | 1.1% |
| Slootmaekers et al., 2019 | 0 | 16 | 0.00 | [0.00; 0.21] | 0.9% |
| Zheng et al., 2019 | 261 | 1945 | 0.13 | [0.12; 0.15] | 1.2% |
| Bosshart et al., 2020 | 0 | 535 | 0.00 | [0.00; 0.01] | 1.2% |
| Merga et al., 2020 | 0 | 560 | 0.00 | [0.00; 0.01] | 1.2% |
| Abidli et al., 2021 | 0 | 981 | 0.00 | [0.00; 0.00] | 1.2% |
| Atamanalp et al., 2021a | 0 | 232 | 0.00 | [0.00; 0.02] | 1.2% |
| Atici et al., 2021 | 67 | 3338 | 0.02 | [0.02; 0.03] | 1.2% |
| Galafassi et al., 2021 | 28 | 394 | 0.07 | [0.05; 0.10] | 1.2% |
| Garcia et al., 2021a | 14 | 61 | 0.23 | [0.13; 0.35] | 1.1% |
| Hou et al., 2021 | 0 | 170 | 0.00 | [0.00; 0.02] | 1.2% |
| Kumkar et al., 2021 | 1 | 254 | 0.00 | [0.00; 0.02] | 1.2% |
| Martinez-Tavera et al., 2021 | 19 | 139 | 0.14 | [0.08; 0.21] | 1.2% |
| McIlwraith et al., 2021 | 2 | 516 | 0.00 | [0.00; 0.01] | 1.2% |
| Toner and Midway, 2021 | 0 | 3 | 0.00 | [0.00; 0.71] | 0.5% |
| *Random effects model* | | *10059* | *0.03* | *[0.00; 0.08]* | *17.8%* |
| Heterogeneity: $I^2 = 99\%$, $\tau^2 = 0.0395$, $p < 0.01$ | | | | | |
| **Aquaculture** | | | | | |
| Reinold et al., 2021 | 3 | 118 | 0.03 | [0.01; 0.07] | 1.1% |
| Savoca et al., 2021 | 0 | 48 | 0.00 | [0.00; 0.07] | 1.1% |
| *Random effects model* | | *166* | *0.01* | *[0.00; 0.05]* | *2.2%* |
| Heterogeneity: $I^2 = 28\%$, $\tau^2 = 0.0014$, $p = 0.24$ | | | | | |
| **Market** | | | | | |
| Ding et al., 2019b | 7 | 123 | 0.06 | [0.02; 0.11] | 1.1% |
| Fang et al., 2019 | 0 | 111 | 0.00 | [0.00; 0.03] | 1.1% |
| Parvin et al., 2021 | 6 | 107 | 0.06 | [0.02; 0.12] | 1.1% |
| *Random effects model* | | *341* | *0.03* | *[0.00; 0.09]* | *3.4%* |
| Heterogeneity: $I^2 = 83\%$, $\tau^2 = 0.0112$, $p < 0.01$ | | | | | |
| **Random effects model** | | **22149** | **0.06** | **[0.04; 0.09]** | **100.0%** |
| Heterogeneity: $I^2 = 98\%$, $\tau^2 = 0.0481$, $p = 0$ | | | | | |
| Test for subgroup differences: $\chi_4^2 = 11.37$, df = 4 ($p = 0.02$) | | | | | |

**Figure S11.** Forest plot for white subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. White: number of white found in each study.
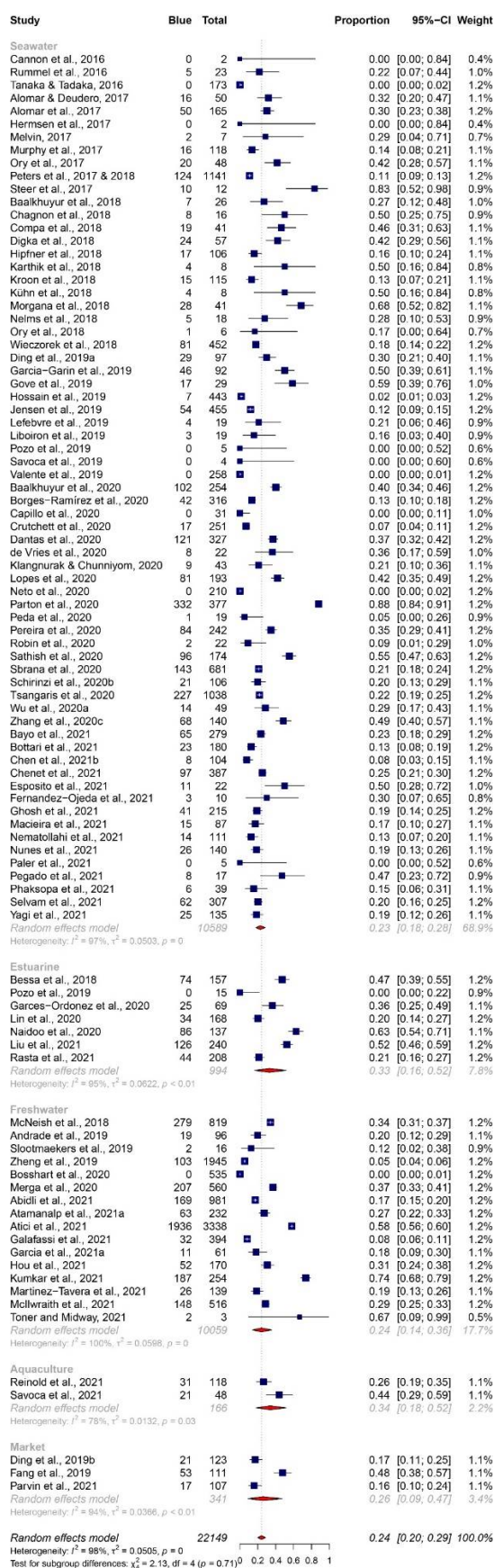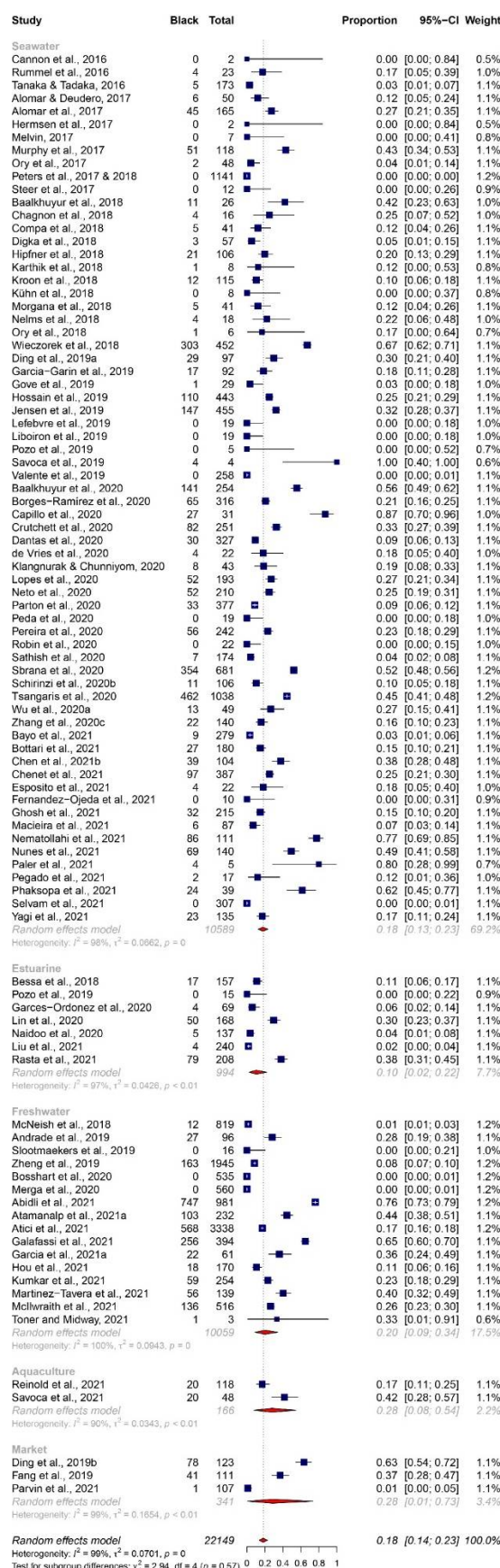
| Study | PE | Total | | Proportion | 95%–CI | Weight |
|---|---|---|---|---|---|---|
| **Seawater** | | | | | | |
| Cannon et al., 2016 | 0 | 2 | | 0.00 | [0.00; 0.84] | 0.5% |
| Rummel et al., 2016 | 9 | 23 | | 0.39 | [0.20; 0.61] | 1.1% |
| Tanaka & Tadaka, 2016 | 78 | 150 | | 0.52 | [0.44; 0.60] | 1.3% |
| Alomar & Deudero, 2017 | 3 | 66 | | 0.05 | [0.01; 0.13] | 1.2% |
| Alomar et al., 2017 | 0 | 165 | | 0.00 | [0.00; 0.02] | 1.3% |
| Hermsen et al., 2017 | 0 | 2 | | 0.00 | [0.00; 0.84] | 0.5% |
| Melvin, 2017 | 1 | 4 | | 0.25 | [0.01; 0.81] | 0.7% |
| Murphy et al., 2017 | 0 | 118 | | 0.00 | [0.00; 0.03] | 1.2% |
| Ory et al., 2017 | 22 | 27 | | 0.81 | [0.62; 0.94] | 1.1% |
| Peters et al., 2017 & 2018 | 0 | 25 | | 0.00 | [0.00; 0.14] | 1.1% |
| Steer et al., 2017 | 0 | 9 | | 0.00 | [0.00; 0.34] | 0.9% |
| Baalkhuyur et al., 2018 | 11 | 26 | | 0.42 | [0.23; 0.63] | 1.1% |
| Chagnon et al., 2018 | 6 | 16 | | 0.38 | [0.15; 0.65] | 1.0% |
| Compa et al., 2018 | 2 | 10 | | 0.20 | [0.03; 0.56] | 0.9% |
| Digka et al., 2018 | 10 | 18 | | 0.56 | [0.31; 0.78] | 1.1% |
| Hipfner et al., 2018 | 0 | 12 | | 0.00 | [0.00; 0.26] | 1.0% |
| Karthik et al., 2018 | 4 | 7 | | 0.57 | [0.18; 0.90] | 0.8% |
| Kroon et al., 2018 | 0 | 7 | | 0.00 | [0.00; 0.41] | 0.8% |
| Kühn et al., 2018 | 0 | 2 | | 0.00 | [0.00; 0.84] | 0.5% |
| Morgana et al., 2018 | 5 | 30 | | 0.17 | [0.06; 0.35] | 1.1% |
| Nelms et al., 2018 | 5 | 18 | | 0.28 | [0.10; 0.53] | 1.1% |
| Ory et al., 2018 | 3 | 5 | | 0.60 | [0.15; 0.95] | 0.8% |
| Wieczorek et al., 2018 | 26 | 80 | | 0.32 | [0.22; 0.44] | 1.2% |
| Ding et al., 2019a | 3 | 97 | | 0.03 | [0.01; 0.09] | 1.2% |
| Garcia-Garin et al., 2019 | 3 | 9 | | 0.33 | [0.07; 0.70] | 0.9% |
| Gove et al., 2019 | 0 | 11 | | 0.00 | [0.00; 0.28] | 1.0% |
| Hossain et al., 2019 | 0 | 79 | | 0.00 | [0.00; 0.05] | 1.2% |
| Jensen et al., 2019 | 3 | 208 | | 0.01 | [0.00; 0.04] | 1.3% |
| Lefebvre et al., 2019 | 4 | 26 | | 0.15 | [0.04; 0.35] | 1.1% |
| Liboiron et al., 2019 | 3 | 8 | | 0.38 | [0.09; 0.76] | 0.9% |
| Pozo et al., 2019 | 1 | 4 | | 0.25 | [0.01; 0.81] | 0.7% |
| Savoca et al., 2019 | 0 | 4 | | 0.00 | [0.00; 0.60] | 0.7% |
| Valente et al., 2019 | 5 | 15 | | 0.33 | [0.12; 0.62] | 1.0% |
| Baalkhuyur et al., 2020 | 12 | 19 | | 0.63 | [0.38; 0.84] | 1.1% |
| Borges-Ramírez et al., 2020 | 27 | 190 | | 0.14 | [0.10; 0.20] | 1.3% |
| Capillo et al., 2020 | 1 | 16 | | 0.06 | [0.00; 0.30] | 1.0% |
| Crutchett et al., 2020 | 1 | 7 | | 0.14 | [0.00; 0.58] | 0.8% |
| Dantas et al., 2020 | 0 | 16 | | 0.00 | [0.00; 0.21] | 1.0% |
| de Vries et al., 2020 | 1 | 3 | | 0.33 | [0.01; 0.91] | 0.6% |
| Klangnurak & Chunniyom, 2020 | 9 | 43 | | 0.21 | [0.10; 0.36] | 1.2% |
| Lopes et al., 2020 | 6 | 38 | | 0.16 | [0.06; 0.31] | 1.2% |
| Neto et al., 2020 | 0 | 69 | | 0.00 | [0.00; 0.05] | 1.2% |
| Parton et al., 2020 | 1 | 62 | | 0.02 | [0.00; 0.09] | 1.2% |
| Peda et al., 2020 | 3 | 19 | | 0.16 | [0.03; 0.40] | 1.1% |
| Pereira et al., 2020 | 22 | 52 | | 0.42 | [0.29; 0.57] | 1.2% |
| Robin et al., 2020 | 5 | 13 | | 0.38 | [0.14; 0.68] | 1.0% |
| Sathish et al., 2020 | 33 | 60 | | 0.55 | [0.42; 0.68] | 1.2% |
| Sbrana et al., 2020 | 23 | 40 | | 0.58 | [0.41; 0.73] | 1.2% |
| Schirinzi et al., 2020b | 27 | 75 | | 0.36 | [0.25; 0.48] | 1.2% |
| Tsangaris et al., 2020 | 72 | 166 | | 0.43 | [0.36; 0.51] | 1.3% |
| Wu et al., 2020a | 2 | 49 | | 0.04 | [0.00; 0.14] | 1.2% |
| Zhang et al., 2020c | 2 | 18 | | 0.11 | [0.01; 0.35] | 1.1% |
| Bayo et al., 2021 | 209 | 279 | | 0.75 | [0.69; 0.80] | 1.3% |
| Bottari et al., 2021 | 29 | 121 | | 0.24 | [0.17; 0.33] | 1.2% |
| Chen et al., 2021b | 1 | 104 | | 0.01 | [0.00; 0.05] | 1.2% |
| Chenet et al., 2021 | 35 | 387 | | 0.09 | [0.06; 0.12] | 1.3% |
| Esposito et al., 2021 | 9 | 22 | | 0.41 | [0.21; 0.64] | 1.1% |
| Fernandez-Ojeda et al., 2021 | 5 | 9 | | 0.56 | [0.21; 0.86] | 0.9% |
| Ghosh et al., 2021 | 100 | 184 | | 0.54 | [0.47; 0.62] | 1.3% |
| Macieira et al., 2021 | 1 | 87 | | 0.01 | [0.00; 0.06] | 1.2% |
| Nematollahi et al., 2021 | 0 | 6 | | 0.00 | [0.00; 0.46] | 0.8% |
| Nunes et al., 2021 | 0 | 13 | | 0.00 | [0.00; 0.25] | 1.0% |
| Paler et al., 2021 | 1 | 5 | | 0.20 | [0.01; 0.72] | 0.8% |
| Pegado et al., 2021 | 3 | 17 | | 0.18 | [0.04; 0.43] | 1.1% |
| Phaksopa et al., 2021 | 2 | 39 | | 0.05 | [0.01; 0.17] | 1.2% |
| Selvam et al., 2021 | 87 | 308 | | 0.28 | [0.23; 0.34] | 1.3% |
| Yagi et al., 2021 | 53 | 135 | | 0.39 | [0.31; 0.48] | 1.2% |
| *Random effects model* | | *3954* | | *0.18* | *[0.12; 0.24]* | *70.2%* |
| Heterogeneity: $I^2 = 96\%$, $\tau^2 = 0.0666$, $p < 0.01$ | | | | | | |
| **Estuarine** | | | | | | |
| Bessa et al., 2018 | 2 | 32 | | 0.06 | [0.01; 0.21] | 1.1% |
| Pozo et al., 2019 | 0 | 15 | | 0.00 | [0.00; 0.22] | 1.0% |
| Garces-Ordonez et al., 2020 | 0 | 10 | | 0.00 | [0.00; 0.31] | 0.9% |
| Lin et al., 2020 | 2 | 104 | | 0.02 | [0.00; 0.07] | 1.2% |
| Naidoo et al., 2020 | 0 | 137 | | 0.00 | [0.00; 0.03] | 1.2% |
| Liu et al., 2021 | 23 | 240 | | 0.10 | [0.06; 0.14] | 1.3% |
| Rasta et al., 2021 | 15 | 33 | | 0.45 | [0.28; 0.64] | 1.2% |
| *Random effects model* | | *571* | | *0.05* | *[0.00; 0.17]* | *8.0%* |
| Heterogeneity: $I^2 = 91\%$, $\tau^2 = 0.0467$, $p < 0.01$ | | | | | | |
| **Freshwater** | | | | | | |
| McNeish et al., 2018 | 2 | 9 | | 0.22 | [0.03; 0.60] | 0.9% |
| Andrade et al., 2019 | 4 | 15 | | 0.27 | [0.08; 0.55] | 1.0% |
| Slootmaekers et al., 2019 | 0 | 8 | | 0.00 | [0.00; 0.37] | 0.9% |
| Zheng et al., 2019 | 151 | 654 | | 0.23 | [0.20; 0.27] | 1.3% |
| Bosshart et al., 2020 | 0 | 1 | | 0.00 | [0.00; 0.98] | 0.4% |
| Merga et al., 2020 | 7 | 17 | | 0.41 | [0.18; 0.67] | 1.1% |
| Abidli et al., 2021 | 5 | 22 | | 0.23 | [0.08; 0.45] | 1.1% |
| Atamanalp et al., 2021a | 17 | 46 | | 0.37 | [0.23; 0.52] | 1.2% |
| Atici et al., 2021 | 3 | 5 | | 0.60 | [0.15; 0.95] | 0.8% |
| Galafassi et al., 2021 | 10 | 60 | | 0.17 | [0.08; 0.29] | 1.2% |
| Garcia et al., 2021a | 2 | 14 | | 0.14 | [0.02; 0.43] | 1.0% |
| Hou et al., 2021 | 1 | 64 | | 0.02 | [0.00; 0.08] | 1.2% |
| Kumkar et al., 2021 | 17 | 26 | | 0.65 | [0.44; 0.83] | 1.1% |
| Martinez-Tavera et al., 2021 | 0 | 45 | | 0.00 | [0.00; 0.08] | 1.2% |
| Mcllwraith et al., 2021 | 5 | 38 | | 0.13 | [0.04; 0.28] | 1.2% |
| Toner and Midway, 2021 | 1 | 3 | | 0.33 | [0.01; 0.91] | 0.6% |
| *Random effects model* | | *1027* | | *0.18* | *[0.08; 0.30]* | *16.1%* |
| Heterogeneity: $I^2 = 85\%$, $\tau^2 = 0.0430$, $p < 0.01$ | | | | | | |
| **Aquaculture** | | | | | | |
| Reinold et al., 2021 | 5 | 31 | | 0.16 | [0.05; 0.34] | 1.1% |
| Savoca et al., 2021 | 0 | 27 | | 0.00 | [0.00; 0.13] | 1.1% |
| *Random effects model* | | *58* | | *0.05* | *[0.00; 0.30]* | *2.3%* |
| Heterogeneity: $I^2 = 85\%$, $\tau^2 = 0.0466$, $p = 0.01$ | | | | | | |
| **Market** | | | | | | |
| Ding et al., 2019b | 0 | 123 | | 0.00 | [0.00; 0.03] | 1.2% |
| Fang et al., 2019 | 0 | 111 | | 0.00 | [0.00; 0.03] | 1.2% |
| Parvin et al., 2021 | 4 | 10 | | 0.40 | [0.12; 0.74] | 0.9% |
| *Random effects model* | | *244* | | *0.04* | *[0.00; 0.36]* | *3.4%* |
| Heterogeneity: $I^2 = 88\%$, $\tau^2 = 0.1231$, $p < 0.01$ | | | | | | |
| **Random effects model** | | **5854** | | **0.16** | **[0.11; 0.21]** | **100.0%** |
| Heterogeneity: $I^2 = 95\%$, $\tau^2 = 0.0648$, $p = 0$ | | | | | | |
| Test for subgroup differences: $\chi_4^2 = 7.35$, df = 4 ($p = 0.12$) | | | | | | |

**Figure S12.** Forest plot for PE subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. PE: number of PE found in each study. PE: Polyethylene.
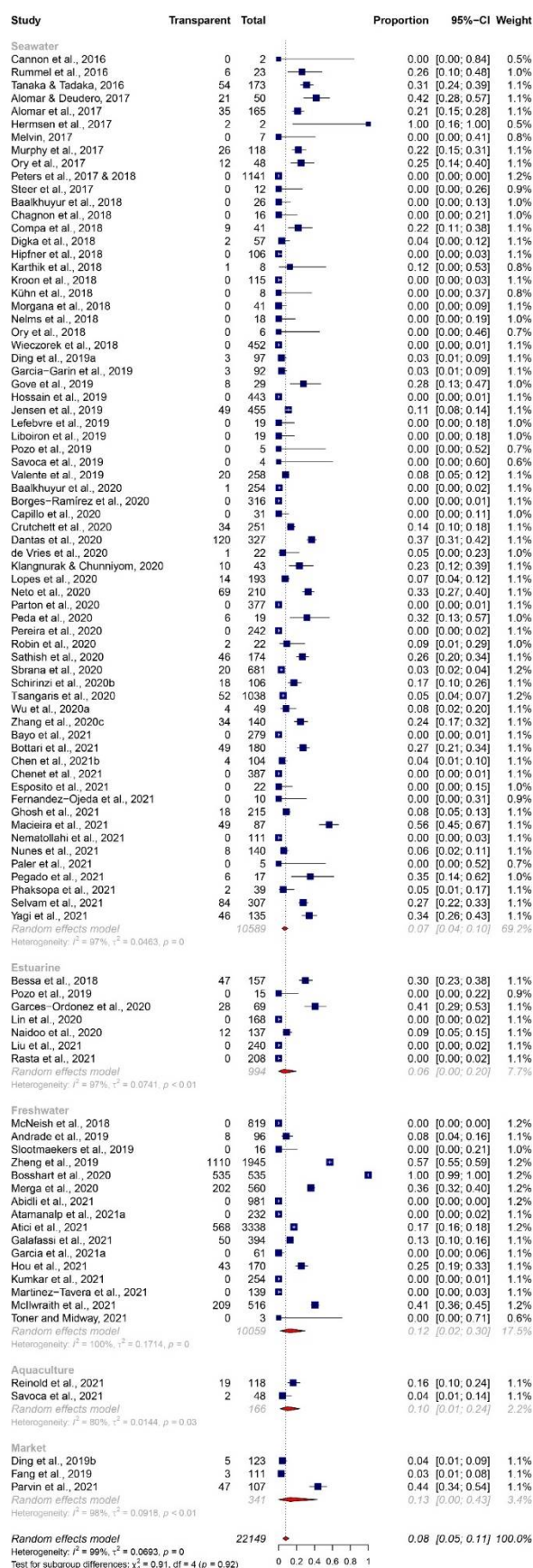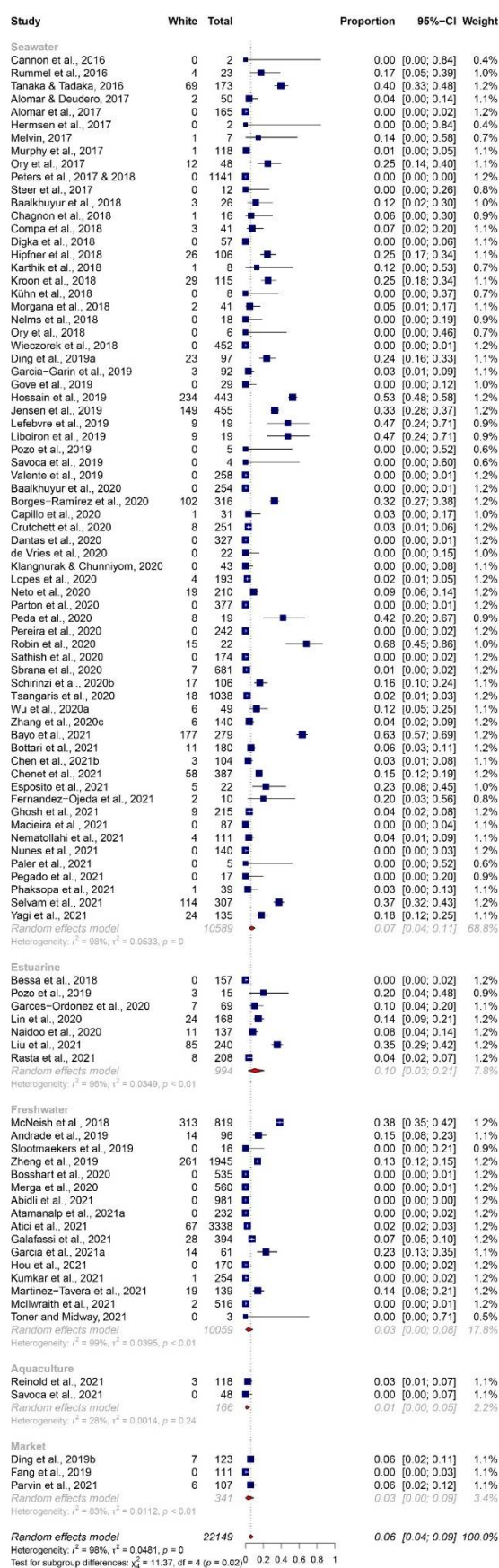
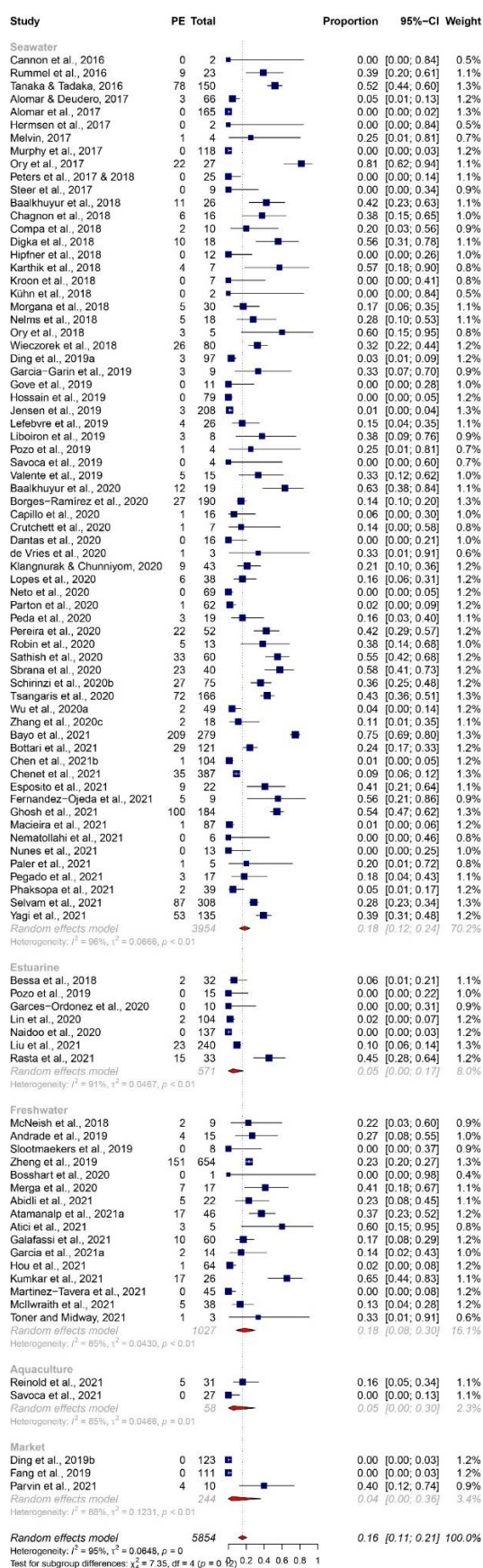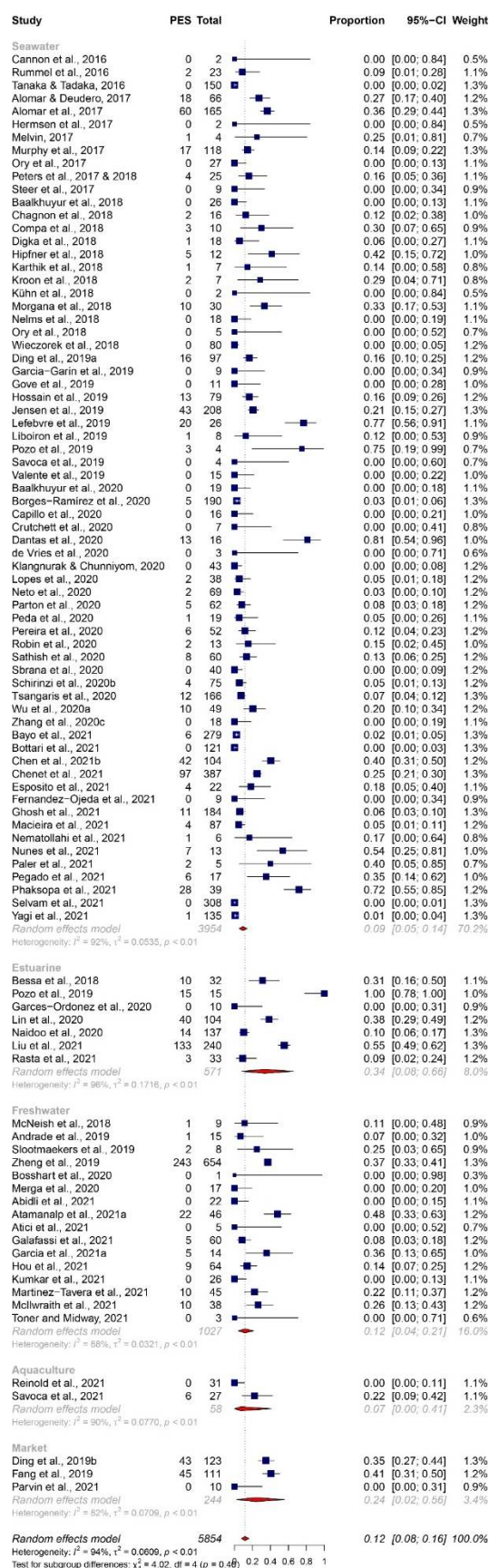| Study | PES | Total | | Proportion | 95%-CI | Weight |
|---|---|---|---|---|---|---|
| **Seawater** | | | | | | |
| Cannon et al., 2016 | 0 | 2 | | 0.00 | [0.00; 0.84] | 0.5% |
| Rummel et al., 2016 | 2 | 23 | | 0.09 | [0.01; 0.28] | 1.1% |
| Tanaka & Tadaka, 2016 | 0 | 150 | | 0.00 | [0.00; 0.02] | 1.3% |
| Alomar & Deudero, 2017 | 18 | 66 | | 0.27 | [0.17; 0.40] | 1.2% |
| Alomar et al., 2017 | 60 | 165 | | 0.36 | [0.29; 0.44] | 1.3% |
| Hermsen et al., 2017 | 0 | 2 | | 0.00 | [0.00; 0.84] | 0.5% |
| Melvin, 2017 | 1 | 4 | | 0.25 | [0.01; 0.81] | 0.7% |
| Murphy et al., 2017 | 17 | 118 | | 0.14 | [0.09; 0.22] | 1.3% |
| Ory et al., 2017 | 0 | 27 | | 0.00 | [0.00; 0.13] | 1.1% |
| Peters et al., 2017 & 2018 | 4 | 25 | | 0.16 | [0.05; 0.36] | 1.1% |
| Steer et al., 2017 | 0 | 9 | | 0.00 | [0.00; 0.34] | 0.9% |
| Baalkhuyur et al., 2018 | 0 | 26 | | 0.00 | [0.00; 0.13] | 1.1% |
| Chagnon et al., 2018 | 2 | 16 | | 0.12 | [0.02; 0.38] | 1.0% |
| Compa et al., 2018 | 3 | 10 | | 0.30 | [0.07; 0.65] | 0.9% |
| Digka et al., 2018 | 1 | 18 | | 0.06 | [0.00; 0.27] | 1.1% |
| Hipfner et al., 2018 | 5 | 12 | | 0.42 | [0.15; 0.72] | 1.0% |
| Karthik et al., 2018 | 1 | 7 | | 0.14 | [0.00; 0.58] | 0.8% |
| Kroon et al., 2018 | 2 | 7 | | 0.29 | [0.04; 0.71] | 0.8% |
| Kühn et al., 2018 | 0 | 2 | | 0.00 | [0.00; 0.84] | 0.5% |
| Morgana et al., 2018 | 10 | 30 | | 0.33 | [0.17; 0.53] | 1.1% |
| Nelms et al., 2018 | 0 | 18 | | 0.00 | [0.00; 0.19] | 1.1% |
| Ory et al., 2018 | 0 | 5 | | 0.00 | [0.00; 0.52] | 0.7% |
| Wieczorek et al., 2018 | 0 | 80 | | 0.00 | [0.00; 0.05] | 1.2% |
| Ding et al., 2019a | 16 | 97 | | 0.16 | [0.10; 0.25] | 1.2% |
| Garcia-Garin et al., 2019 | 0 | 9 | | 0.00 | [0.00; 0.34] | 0.9% |
| Gove et al., 2019 | 0 | 11 | | 0.00 | [0.00; 0.28] | 1.0% |
| Hossain et al., 2019 | 13 | 79 | | 0.16 | [0.09; 0.26] | 1.2% |
| Jensen et al., 2019 | 43 | 208 | | 0.21 | [0.15; 0.27] | 1.3% |
| Lefebvre et al., 2019 | 20 | 26 | | 0.77 | [0.56; 0.91] | 1.1% |
| Liboiron et al., 2019 | 1 | 8 | | 0.12 | [0.00; 0.53] | 0.9% |
| Pozo et al., 2019 | 3 | 4 | | 0.75 | [0.19; 0.99] | 0.7% |
| Savoca et al., 2019 | 0 | 4 | | 0.00 | [0.00; 0.60] | 0.7% |
| Valente et al., 2019 | 0 | 15 | | 0.00 | [0.00; 0.22] | 1.0% |
| Baalkhuyur et al., 2020 | 0 | 19 | | 0.00 | [0.00; 0.18] | 1.1% |
| Borges-Ramírez et al., 2020 | 5 | 190 | | 0.03 | [0.01; 0.06] | 1.3% |
| Capillo et al., 2020 | 0 | 16 | | 0.00 | [0.00; 0.21] | 1.0% |
| Crutchett et al., 2020 | 0 | 7 | | 0.00 | [0.00; 0.41] | 0.8% |
| Dantas et al., 2020 | 13 | 16 | | 0.81 | [0.54; 0.96] | 1.0% |
| de Vries et al., 2020 | 0 | 3 | | 0.00 | [0.00; 0.71] | 0.6% |
| Klangnurak & Chunniyom, 2020 | 0 | 43 | | 0.00 | [0.00; 0.08] | 1.2% |
| Lopes et al., 2020 | 2 | 38 | | 0.05 | [0.01; 0.18] | 1.2% |
| Neto et al., 2020 | 2 | 69 | | 0.03 | [0.00; 0.10] | 1.2% |
| Parton et al., 2020 | 5 | 62 | | 0.08 | [0.03; 0.18] | 1.2% |
| Peda et al., 2020 | 1 | 19 | | 0.05 | [0.00; 0.26] | 1.1% |
| Pereira et al., 2020 | 6 | 52 | | 0.12 | [0.04; 0.23] | 1.2% |
| Robin et al., 2020 | 2 | 13 | | 0.15 | [0.02; 0.45] | 1.0% |
| Sathish et al., 2020 | 8 | 60 | | 0.13 | [0.06; 0.25] | 1.2% |
| Sbrana et al., 2020 | 0 | 40 | | 0.00 | [0.00; 0.09] | 1.2% |
| Schirinzi et al., 2020b | 4 | 75 | | 0.05 | [0.01; 0.13] | 1.2% |
| Tsangaris et al., 2020 | 12 | 166 | | 0.07 | [0.04; 0.12] | 1.3% |
| Wu et al., 2020a | 10 | 49 | | 0.20 | [0.10; 0.34] | 1.2% |
| Zhang et al., 2020c | 0 | 18 | | 0.00 | [0.00; 0.19] | 1.1% |
| Bayo et al., 2021 | 6 | 279 | | 0.02 | [0.01; 0.05] | 1.3% |
| Bottari et al., 2021 | 0 | 121 | | 0.00 | [0.00; 0.03] | 1.3% |
| Chen et al., 2021b | 42 | 104 | | 0.40 | [0.31; 0.50] | 1.2% |
| Chenet et al., 2021 | 97 | 387 | | 0.25 | [0.21; 0.30] | 1.3% |
| Esposito et al., 2021 | 4 | 22 | | 0.18 | [0.05; 0.40] | 1.1% |
| Fernandez-Ojeda et al., 2021 | 0 | 9 | | 0.00 | [0.00; 0.34] | 0.9% |
| Ghosh et al., 2021 | 11 | 184 | | 0.06 | [0.03; 0.10] | 1.3% |
| Macieira et al., 2021 | 4 | 87 | | 0.05 | [0.01; 0.11] | 1.2% |
| Nematollahi et al., 2021 | 1 | 6 | | 0.17 | [0.00; 0.64] | 0.8% |
| Nunes et al., 2021 | 7 | 13 | | 0.54 | [0.25; 0.81] | 1.0% |
| Paler et al., 2021 | 2 | 5 | | 0.40 | [0.05; 0.85] | 0.7% |
| Pegado et al., 2021 | 6 | 17 | | 0.35 | [0.14; 0.62] | 1.0% |
| Phaksopa et al., 2021 | 28 | 39 | | 0.72 | [0.55; 0.85] | 1.2% |
| Selvam et al., 2021 | 0 | 308 | | 0.00 | [0.00; 0.01] | 1.3% |
| Yagi et al., 2021 | 1 | 135 | | 0.01 | [0.00; 0.04] | 1.3% |
| *Random effects model* | | *3954* | | *0.09* | *[0.05; 0.14]* | *70.2%* |
| Heterogeneity: $I^2 = 92\%$, $\tau^2 = 0.0535$, $p < 0.01$ | | | | | | |
| **Estuarine** | | | | | | |
| Bessa et al., 2018 | 10 | 32 | | 0.31 | [0.16; 0.50] | 1.1% |
| Pozo et al., 2019 | 15 | 15 | | 1.00 | [0.78; 1.00] | 1.0% |
| Garces-Ordonez et al., 2020 | 0 | 10 | | 0.00 | [0.00; 0.31] | 0.9% |
| Lin et al., 2020 | 40 | 104 | | 0.38 | [0.29; 0.49] | 1.2% |
| Naidoo et al., 2020 | 14 | 137 | | 0.10 | [0.06; 0.17] | 1.3% |
| Liu et al., 2021 | 133 | 240 | | 0.55 | [0.49; 0.62] | 1.3% |
| Rasta et al., 2021 | 3 | 33 | | 0.09 | [0.02; 0.24] | 1.2% |
| *Random effects model* | | *571* | | *0.34* | *[0.08; 0.66]* | *8.0%* |
| Heterogeneity: $I^2 = 96\%$, $\tau^2 = 0.1716$, $p < 0.01$ | | | | | | |
| **Freshwater** | | | | | | |
| McNeish et al., 2018 | 1 | 9 | | 0.11 | [0.00; 0.48] | 0.9% |
| Andrade et al., 2019 | 1 | 15 | | 0.07 | [0.00; 0.32] | 1.0% |
| Slootmaekers et al., 2019 | 2 | 8 | | 0.25 | [0.03; 0.65] | 0.9% |
| Zheng et al., 2019 | 243 | 654 | | 0.37 | [0.33; 0.41] | 1.3% |
| Bosshart et al., 2020 | 0 | 1 | | 0.00 | [0.00; 0.98] | 0.3% |
| Merga et al., 2020 | 0 | 17 | | 0.00 | [0.00; 0.20] | 1.0% |
| Abidli et al., 2021 | 0 | 22 | | 0.00 | [0.00; 0.15] | 1.1% |
| Atamanalp et al., 2021a | 22 | 46 | | 0.48 | [0.33; 0.63] | 1.2% |
| Atici et al., 2021 | 0 | 5 | | 0.00 | [0.00; 0.52] | 0.7% |
| Galafassi et al., 2021 | 5 | 60 | | 0.08 | [0.03; 0.18] | 1.2% |
| Garcia et al., 2021a | 5 | 14 | | 0.36 | [0.13; 0.65] | 1.0% |
| Hou et al., 2021 | 9 | 64 | | 0.14 | [0.07; 0.25] | 1.2% |
| Kumkar et al., 2021 | 0 | 26 | | 0.00 | [0.00; 0.13] | 1.1% |
| Martinez-Tavera et al., 2021 | 10 | 45 | | 0.22 | [0.11; 0.37] | 1.2% |
| McIlwraith et al., 2021 | 10 | 38 | | 0.26 | [0.13; 0.43] | 1.2% |
| Toner and Midway, 2021 | 0 | 3 | | 0.00 | [0.00; 0.71] | 0.6% |
| *Random effects model* | | *1027* | | *0.12* | *[0.04; 0.21]* | *16.0%* |
| Heterogeneity: $I^2 = 88\%$, $\tau^2 = 0.0321$, $p < 0.01$ | | | | | | |
| **Aquaculture** | | | | | | |
| Reinold et al., 2021 | 0 | 31 | | 0.00 | [0.00; 0.11] | 1.1% |
| Savoca et al., 2021 | 6 | 27 | | 0.22 | [0.09; 0.42] | 1.1% |
| *Random effects model* | | *58* | | *0.07* | *[0.00; 0.41]* | *2.3%* |
| Heterogeneity: $I^2 = 90\%$, $\tau^2 = 0.0770$, $p < 0.01$ | | | | | | |
| **Market** | | | | | | |
| Ding et al., 2019b | 43 | 123 | | 0.35 | [0.27; 0.44] | 1.3% |
| Fang et al., 2019 | 45 | 111 | | 0.41 | [0.31; 0.50] | 1.2% |
| Parvin et al., 2021 | 0 | 10 | | 0.00 | [0.00; 0.31] | 0.9% |
| *Random effects model* | | *244* | | *0.24* | *[0.02; 0.56]* | *3.4%* |
| Heterogeneity: $I^2 = 82\%$, $\tau^2 = 0.0709$, $p < 0.01$ | | | | | | |
| **Random effects model** | | **5854** | | **0.12** | **[0.08; 0.16]** | **100.0%** |
| Heterogeneity: $I^2 = 94\%$, $\tau^2 = 0.0609$, $p < 0.01$ | | | | | | |
| Test for subgroup differences: $\chi^2_4 = 4.02$, df = 4 ($p = 0.40$) | | | 0.2 0.4 0.6 0.8 1 | | | |

**Figure S13.** Forest plot for PES subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. PES: number of PES found in each study. PES: Polyester.
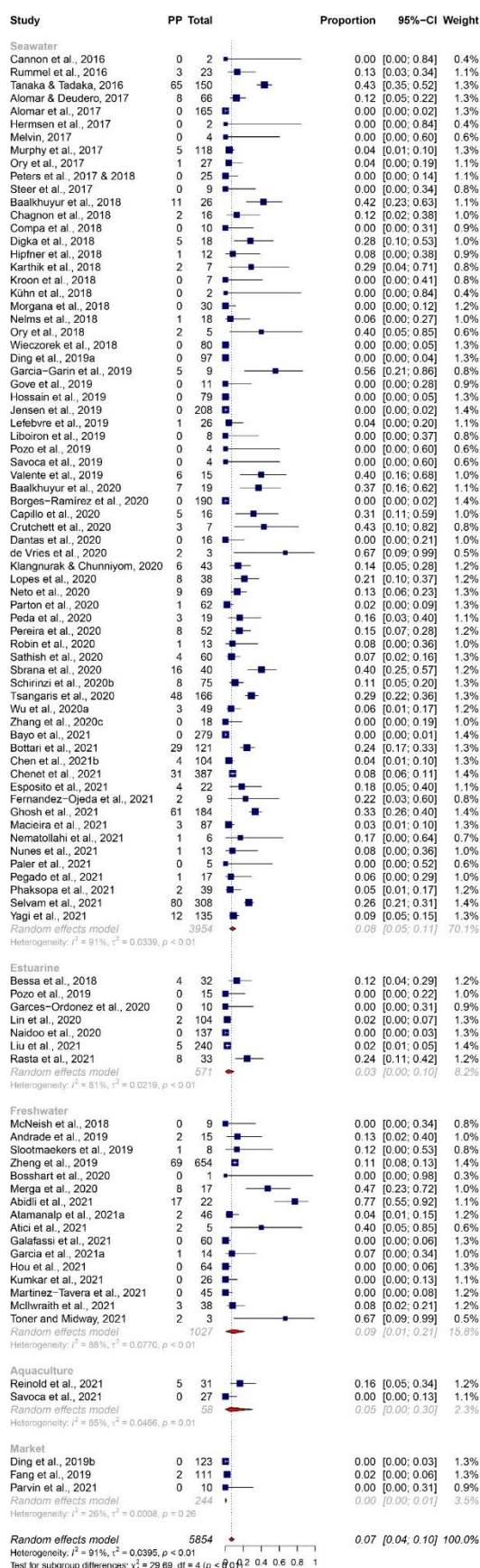
| Study | PP | Total | Proportion | 95%-CI | Weight |
|---|---|---|---|---|---|
| **Seawater** | | | | | |
| Cannon et al., 2016 | 0 | 2 | | 0.00 [0.00; 0.84] | 0.4% |
| Rummel et al., 2016 | 3 | 23 | | 0.13 [0.03; 0.34] | 1.1% |
| Tanaka & Tadaka, 2016 | 65 | 150 | | 0.43 [0.35; 0.52] | 1.3% |
| Alomar & Deudero, 2017 | 8 | 66 | | 0.12 [0.05; 0.22] | 1.3% |
| Alomar et al., 2017 | 0 | 165 | | 0.00 [0.00; 0.02] | 1.3% |
| Hermsen et al., 2017 | 0 | 2 | | 0.00 [0.00; 0.84] | 0.4% |
| Melvin, 2017 | 0 | 4 | | 0.00 [0.00; 0.60] | 0.6% |
| Murphy et al., 2017 | 5 | 118 | | 0.04 [0.01; 0.10] | 1.3% |
| Ory et al., 2017 | 1 | 27 | | 0.04 [0.00; 0.19] | 1.1% |
| Peters et al., 2017 & 2018 | 0 | 25 | | 0.00 [0.00; 0.14] | 1.1% |
| Steer et al., 2017 | 0 | 9 | | 0.00 [0.00; 0.34] | 0.8% |
| Baalkhuyur et al., 2018 | 11 | 26 | | 0.42 [0.23; 0.63] | 1.1% |
| Chagnon et al., 2018 | 2 | 16 | | 0.12 [0.02; 0.38] | 1.0% |
| Compa et al., 2018 | 0 | 10 | | 0.00 [0.00; 0.31] | 0.9% |
| Digka et al., 2018 | 5 | 18 | | 0.28 [0.10; 0.53] | 1.0% |
| Hipfner et al., 2018 | 1 | 12 | | 0.08 [0.00; 0.38] | 0.9% |
| Karthik et al., 2018 | 2 | 7 | | 0.29 [0.04; 0.71] | 0.8% |
| Kroon et al., 2018 | 0 | 7 | | 0.00 [0.00; 0.41] | 0.8% |
| Kühn et al., 2018 | 0 | 2 | | 0.00 [0.00; 0.84] | 0.4% |
| Morgana et al., 2018 | 0 | 30 | | 0.00 [0.00; 0.12] | 1.2% |
| Nelms et al., 2018 | 1 | 18 | | 0.06 [0.00; 0.27] | 1.0% |
| Ory et al., 2018 | 2 | 5 | | 0.40 [0.05; 0.85] | 0.6% |
| Wieczorek et al., 2018 | 0 | 80 | | 0.00 [0.00; 0.05] | 1.3% |
| Ding et al., 2019a | 0 | 97 | | 0.00 [0.00; 0.04] | 1.3% |
| Garcia-Garin et al., 2019 | 5 | 9 | | 0.56 [0.21; 0.86] | 0.8% |
| Gove et al., 2019 | 0 | 11 | | 0.00 [0.00; 0.28] | 0.9% |
| Hossain et al., 2019 | 0 | 79 | | 0.00 [0.00; 0.05] | 1.3% |
| Jensen et al., 2019 | 0 | 208 | | 0.00 [0.00; 0.02] | 1.4% |
| Lefebvre et al., 2019 | 1 | 26 | | 0.04 [0.00; 0.20] | 1.1% |
| Liboiron et al., 2019 | 0 | 8 | | 0.00 [0.00; 0.37] | 0.8% |
| Pozo et al., 2019 | 0 | 4 | | 0.00 [0.00; 0.60] | 0.6% |
| Savoca et al., 2019 | 0 | 4 | | 0.00 [0.00; 0.60] | 0.6% |
| Valente et al., 2019 | 6 | 15 | | 0.40 [0.16; 0.68] | 1.0% |
| Baalkhuyur et al., 2020 | 7 | 19 | | 0.37 [0.16; 0.62] | 1.1% |
| Borges-Ramírez et al., 2020 | 0 | 190 | | 0.00 [0.00; 0.02] | 1.4% |
| Capillo et al., 2020 | 5 | 16 | | 0.31 [0.11; 0.59] | 1.0% |
| Crutchett et al., 2020 | 3 | 7 | | 0.43 [0.10; 0.82] | 0.8% |
| Dantas et al., 2020 | 0 | 16 | | 0.00 [0.00; 0.21] | 1.0% |
| de Vries et al., 2020 | 2 | 3 | | 0.67 [0.09; 0.99] | 0.5% |
| Klangnurak & Chunniyom, 2020 | 6 | 43 | | 0.14 [0.05; 0.28] | 1.2% |
| Lopes et al., 2020 | 8 | 38 | | 0.21 [0.10; 0.37] | 1.2% |
| Neto et al., 2020 | 9 | 69 | | 0.13 [0.06; 0.23] | 1.3% |
| Parton et al., 2020 | 1 | 62 | | 0.02 [0.00; 0.09] | 1.3% |
| Peda et al., 2020 | 3 | 19 | | 0.16 [0.03; 0.40] | 1.1% |
| Pereira et al., 2020 | 8 | 52 | | 0.15 [0.07; 0.28] | 1.2% |
| Robin et al., 2020 | 1 | 13 | | 0.08 [0.00; 0.36] | 1.0% |
| Sathish et al., 2020 | 4 | 60 | | 0.07 [0.02; 0.16] | 1.3% |
| Sbrana et al., 2020 | 16 | 40 | | 0.40 [0.25; 0.57] | 1.2% |
| Schirinzi et al., 2020b | 8 | 75 | | 0.11 [0.05; 0.20] | 1.3% |
| Tsangaris et al., 2020 | 48 | 166 | | 0.29 [0.22; 0.36] | 1.3% |
| Wu et al., 2020a | 3 | 49 | | 0.06 [0.01; 0.17] | 1.2% |
| Zhang et al., 2020c | 0 | 18 | | 0.00 [0.00; 0.19] | 1.0% |
| Bayo et al., 2021 | 0 | 279 | | 0.00 [0.00; 0.01] | 1.4% |
| Bottari et al., 2021 | 29 | 121 | | 0.24 [0.17; 0.33] | 1.3% |
| Chen et al., 2021b | 4 | 104 | | 0.04 [0.01; 0.10] | 1.3% |
| Chenet et al., 2021 | 31 | 387 | | 0.08 [0.06; 0.11] | 1.4% |
| Esposito et al., 2021 | 4 | 22 | | 0.18 [0.05; 0.40] | 1.1% |
| Fernandez-Ojeda et al., 2021 | 2 | 9 | | 0.22 [0.03; 0.60] | 0.8% |
| Ghosh et al., 2021 | 61 | 184 | | 0.33 [0.26; 0.40] | 1.4% |
| Macieira et al., 2021 | 3 | 87 | | 0.03 [0.01; 0.10] | 1.3% |
| Nematollahi et al., 2021 | 1 | 6 | | 0.17 [0.00; 0.64] | 0.7% |
| Nunes et al., 2021 | 1 | 13 | | 0.08 [0.00; 0.36] | 1.0% |
| Paler et al., 2021 | 0 | 5 | | 0.00 [0.00; 0.52] | 0.6% |
| Pegado et al., 2021 | 1 | 17 | | 0.06 [0.00; 0.29] | 1.0% |
| Phaksopa et al., 2021 | 2 | 39 | | 0.05 [0.01; 0.17] | 1.2% |
| Selvam et al., 2021 | 80 | 308 | | 0.26 [0.21; 0.31] | 1.4% |
| Yagi et al., 2021 | 12 | 135 | | 0.09 [0.05; 0.15] | 1.3% |
| *Random effects model* | | *3954* | | *0.08 [0.05; 0.11]* | *70.1%* |
| Heterogeneity: $I^2 = 91\%$, $\tau^2 = 0.0339$, $p < 0.01$ | | | | | |
| **Estuarine** | | | | | |
| Bessa et al., 2018 | 4 | 32 | | 0.12 [0.04; 0.29] | 1.2% |
| Pozo et al., 2019 | 0 | 15 | | 0.00 [0.00; 0.22] | 1.0% |
| Garces-Ordonez et al., 2020 | 0 | 10 | | 0.00 [0.00; 0.31] | 0.9% |
| Lin et al., 2020 | 2 | 104 | | 0.02 [0.00; 0.07] | 1.3% |
| Naidoo et al., 2020 | 0 | 137 | | 0.00 [0.00; 0.03] | 1.3% |
| Liu et al., 2021 | 5 | 240 | | 0.02 [0.01; 0.05] | 1.4% |
| Rasta et al., 2021 | 8 | 33 | | 0.24 [0.11; 0.42] | 1.2% |
| *Random effects model* | | *571* | | *0.03 [0.00; 0.10]* | *8.2%* |
| Heterogeneity: $I^2 = 81\%$, $\tau^2 = 0.0219$, $p < 0.01$ | | | | | |
| **Freshwater** | | | | | |
| McNeish et al., 2018 | 0 | 9 | | 0.00 [0.00; 0.34] | 0.8% |
| Andrade et al., 2019 | 2 | 15 | | 0.13 [0.02; 0.40] | 1.0% |
| Slootmaekers et al., 2019 | 1 | 8 | | 0.12 [0.00; 0.53] | 0.8% |
| Zheng et al., 2019 | 69 | 654 | | 0.11 [0.08; 0.13] | 1.4% |
| Bosshart et al., 2020 | 0 | 1 | | 0.00 [0.00; 0.98] | 0.3% |
| Merga et al., 2020 | 8 | 17 | | 0.47 [0.23; 0.72] | 1.0% |
| Abidli et al., 2021 | 17 | 22 | | 0.77 [0.55; 0.92] | 1.1% |
| Atamanalp et al., 2021a | 2 | 46 | | 0.04 [0.01; 0.15] | 1.2% |
| Atici et al., 2021 | 2 | 5 | | 0.40 [0.05; 0.85] | 0.6% |
| Galafassi et al., 2021 | 0 | 60 | | 0.00 [0.00; 0.06] | 1.3% |
| Garcia et al., 2021a | 1 | 14 | | 0.07 [0.00; 0.34] | 1.0% |
| Hou et al., 2021 | 0 | 64 | | 0.00 [0.00; 0.06] | 1.3% |
| Kumkar et al., 2021 | 0 | 26 | | 0.00 [0.00; 0.13] | 1.1% |
| Martinez-Tavera et al., 2021 | 0 | 45 | | 0.00 [0.00; 0.08] | 1.2% |
| McIlwraith et al., 2021 | 3 | 38 | | 0.08 [0.02; 0.21] | 1.2% |
| Toner and Midway, 2021 | 2 | 3 | | 0.67 [0.09; 0.99] | 0.5% |
| *Random effects model* | | *1027* | | *0.09 [0.01; 0.21]* | *15.8%* |
| Heterogeneity: $I^2 = 88\%$, $\tau^2 = 0.0770$, $p < 0.01$ | | | | | |
| **Aquaculture** | | | | | |
| Reinold et al., 2021 | 5 | 31 | | 0.16 [0.05; 0.34] | 1.2% |
| Savoca et al., 2021 | 0 | 27 | | 0.00 [0.00; 0.13] | 1.1% |
| *Random effects model* | | *58* | | *0.05 [0.00; 0.30]* | *2.3%* |
| Heterogeneity: $I^2 = 65\%$, $\tau^2 = 0.0466$, $p = 0.01$ | | | | | |
| **Market** | | | | | |
| Ding et al., 2019b | 0 | 123 | | 0.00 [0.00; 0.03] | 1.3% |
| Fang et al., 2019 | 2 | 111 | | 0.02 [0.00; 0.06] | 1.3% |
| Parvin et al., 2021 | 0 | 10 | | 0.00 [0.00; 0.31] | 0.9% |
| *Random effects model* | | *244* | | *0.00 [0.00; 0.01]* | *3.5%* |
| Heterogeneity: $I^2 = 26\%$, $\tau^2 = 0.0008$, $p = 0.26$ | | | | | |
| **Random effects model** | | **5854** | | **0.07 [0.04; 0.10]** | **100.0%** |

Heterogeneity: $I^2 = 91\%$, $\tau^2 = 0.0395$, $p < 0.01$
Test for subgroup differences: $\chi^2_4 = 29.69$, df = 4 ($p < 0.01$)

**Figure S14.** Forest plot for PP subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. PP: number of PP found in each study. PP: Polypropylene.
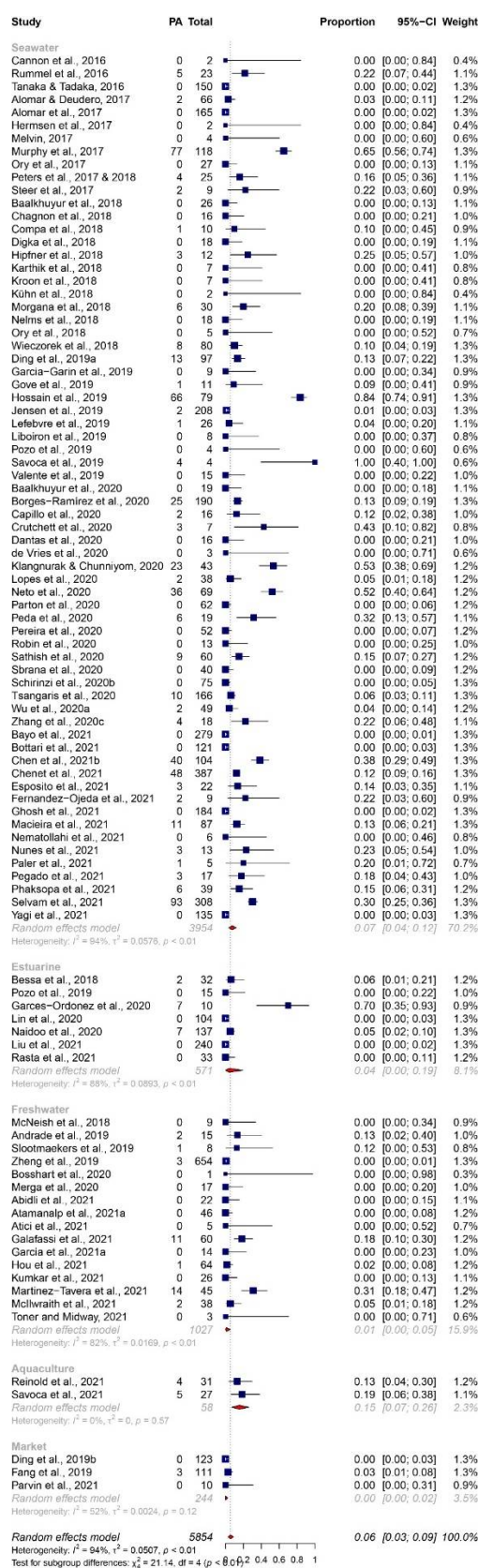
| Study | PA | Total | Proportion 95%-CI | Weight |
|---|---|---|---|---|
| **Seawater** | | | | |
| Cannon et al., 2016 | 0 | 2 | 0.00 [0.00; 0.84] | 0.4% |
| Rummel et al., 2016 | 5 | 23 | 0.22 [0.07; 0.44] | 1.1% |
| Tanaka & Tadaka, 2016 | 0 | 150 | 0.00 [0.00; 0.02] | 1.3% |
| Alomar & Deudero, 2017 | 2 | 66 | 0.03 [0.00; 0.11] | 1.2% |
| Alomar et al., 2017 | 0 | 165 | 0.00 [0.00; 0.02] | 1.3% |
| Hermsen et al., 2017 | 0 | 2 | 0.00 [0.00; 0.84] | 0.4% |
| Melvin, 2017 | 0 | 4 | 0.00 [0.00; 0.60] | 0.6% |
| Murphy et al., 2017 | 77 | 118 | 0.65 [0.56; 0.74] | 1.3% |
| Ory et al., 2017 | 0 | 27 | 0.00 [0.00; 0.13] | 1.1% |
| Peters et al., 2017 & 2018 | 4 | 25 | 0.16 [0.05; 0.36] | 1.1% |
| Steer et al., 2017 | 2 | 9 | 0.22 [0.03; 0.60] | 0.9% |
| Baalkhuyur et al., 2018 | 0 | 26 | 0.00 [0.00; 0.13] | 1.1% |
| Chagnon et al., 2018 | 0 | 16 | 0.00 [0.00; 0.21] | 1.0% |
| Compa et al., 2018 | 1 | 10 | 0.10 [0.00; 0.45] | 0.9% |
| Digka et al., 2018 | 0 | 18 | 0.00 [0.00; 0.19] | 1.1% |
| Hipfner et al., 2018 | 3 | 12 | 0.25 [0.05; 0.57] | 1.0% |
| Karthik et al., 2018 | 0 | 7 | 0.00 [0.00; 0.41] | 0.8% |
| Kroon et al., 2018 | 0 | 7 | 0.00 [0.00; 0.41] | 0.8% |
| Kühn et al., 2018 | 0 | 2 | 0.00 [0.00; 0.84] | 0.4% |
| Morgana et al., 2018 | 6 | 30 | 0.20 [0.08; 0.39] | 1.1% |
| Nelms et al., 2018 | 0 | 18 | 0.00 [0.00; 0.19] | 1.1% |
| Ory et al., 2018 | 0 | 5 | 0.00 [0.00; 0.52] | 0.7% |
| Wieczorek et al., 2018 | 8 | 80 | 0.10 [0.04; 0.19] | 1.3% |
| Ding et al., 2019a | 13 | 97 | 0.13 [0.07; 0.22] | 1.3% |
| Garcia–Garin et al., 2019 | 0 | 9 | 0.00 [0.00; 0.34] | 0.9% |
| Gove et al., 2019 | 1 | 11 | 0.09 [0.00; 0.41] | 0.9% |
| Hossain et al., 2019 | 66 | 79 | 0.84 [0.74; 0.91] | 1.3% |
| Jensen et al., 2019 | 2 | 208 | 0.01 [0.00; 0.03] | 1.3% |
| Lefebvre et al., 2019 | 1 | 26 | 0.04 [0.00; 0.20] | 1.1% |
| Liboiron et al., 2019 | 0 | 8 | 0.00 [0.00; 0.37] | 0.8% |
| Pozo et al., 2019 | 0 | 4 | 0.00 [0.00; 0.60] | 0.6% |
| Savoca et al., 2019 | 4 | 4 | 1.00 [0.40; 1.00] | 0.6% |
| Valente et al., 2019 | 0 | 15 | 0.00 [0.00; 0.22] | 1.0% |
| Baalkhuyur et al., 2020 | 0 | 19 | 0.00 [0.00; 0.18] | 1.1% |
| Borges–Ramirez et al., 2020 | 25 | 190 | 0.13 [0.09; 0.19] | 1.3% |
| Capillo et al., 2020 | 2 | 16 | 0.12 [0.02; 0.38] | 1.0% |
| Crutchett et al., 2020 | 3 | 7 | 0.43 [0.10; 0.82] | 0.8% |
| Dantas et al., 2020 | 0 | 16 | 0.00 [0.00; 0.21] | 1.0% |
| de Vries et al., 2020 | 0 | 3 | 0.00 [0.00; 0.71] | 0.6% |
| Klangnurak & Chunniyom, 2020 | 23 | 43 | 0.53 [0.38; 0.69] | 1.2% |
| Lopes et al., 2020 | 2 | 38 | 0.05 [0.01; 0.18] | 1.2% |
| Neto et al., 2020 | 36 | 69 | 0.52 [0.40; 0.64] | 1.2% |
| Parton et al., 2020 | 0 | 62 | 0.00 [0.00; 0.06] | 1.2% |
| Peda et al., 2020 | 6 | 19 | 0.32 [0.13; 0.57] | 1.1% |
| Pereira et al., 2020 | 0 | 52 | 0.00 [0.00; 0.07] | 1.2% |
| Robin et al., 2020 | 0 | 13 | 0.00 [0.00; 0.25] | 1.0% |
| Sathish et al., 2020 | 9 | 60 | 0.15 [0.07; 0.27] | 1.2% |
| Sbrana et al., 2020 | 0 | 40 | 0.00 [0.00; 0.09] | 1.2% |
| Schirinzi et al., 2020b | 0 | 75 | 0.00 [0.00; 0.05] | 1.3% |
| Tsangaris et al., 2020 | 10 | 166 | 0.06 [0.03; 0.11] | 1.3% |
| Wu et al., 2020a | 2 | 49 | 0.04 [0.00; 0.14] | 1.2% |
| Zhang et al., 2020c | 4 | 18 | 0.22 [0.06; 0.48] | 1.1% |
| Bayo et al., 2021 | 0 | 279 | 0.00 [0.00; 0.01] | 1.3% |
| Bottari et al., 2021 | 0 | 121 | 0.00 [0.00; 0.03] | 1.3% |
| Chen et al., 2021b | 40 | 104 | 0.38 [0.29; 0.49] | 1.3% |
| Chenet et al., 2021 | 48 | 387 | 0.12 [0.09; 0.16] | 1.3% |
| Esposito et al., 2021 | 3 | 22 | 0.14 [0.03; 0.35] | 1.1% |
| Fernandez–Ojeda et al., 2021 | 2 | 9 | 0.22 [0.03; 0.60] | 0.9% |
| Ghosh et al., 2021 | 0 | 184 | 0.00 [0.00; 0.02] | 1.3% |
| Macieira et al., 2021 | 11 | 87 | 0.13 [0.06; 0.21] | 1.3% |
| Nematollahi et al., 2021 | 0 | 6 | 0.00 [0.00; 0.46] | 0.8% |
| Nunes et al., 2021 | 3 | 13 | 0.23 [0.05; 0.54] | 1.0% |
| Paler et al., 2021 | 1 | 5 | 0.20 [0.01; 0.72] | 0.7% |
| Pegado et al., 2021 | 3 | 17 | 0.18 [0.04; 0.43] | 1.0% |
| Phaksopa et al., 2021 | 6 | 39 | 0.15 [0.06; 0.31] | 1.2% |
| Selvam et al., 2021 | 93 | 308 | 0.30 [0.25; 0.36] | 1.3% |
| Yagi et al., 2021 | 0 | 135 | 0.00 [0.00; 0.03] | 1.3% |
| *Random effects model* | | *3954* | *0.07 [0.04; 0.12]* | *70.2%* |
| Heterogeneity: $I^2 = 94\%$, $\tau^2 = 0.0576$, $p < 0.01$ | | | | |
| **Estuarine** | | | | |
| Bessa et al., 2018 | 2 | 32 | 0.06 [0.01; 0.21] | 1.2% |
| Pozo et al., 2019 | 0 | 15 | 0.00 [0.00; 0.22] | 1.0% |
| Garces–Ordonez et al., 2020 | 7 | 10 | 0.70 [0.35; 0.93] | 0.9% |
| Lin et al., 2020 | 0 | 104 | 0.00 [0.00; 0.03] | 1.3% |
| Naidoo et al., 2020 | 7 | 137 | 0.05 [0.02; 0.10] | 1.3% |
| Liu et al., 2021 | 0 | 240 | 0.00 [0.00; 0.02] | 1.3% |
| Rasta et al., 2021 | 0 | 33 | 0.00 [0.00; 0.11] | 1.2% |
| *Random effects model* | | *571* | *0.04 [0.00; 0.19]* | *8.1%* |
| Heterogeneity: $I^2 = 88\%$, $\tau^2 = 0.0893$, $p < 0.01$ | | | | |
| **Freshwater** | | | | |
| McNeish et al., 2018 | 0 | 9 | 0.00 [0.00; 0.34] | 0.9% |
| Andrade et al., 2019 | 2 | 15 | 0.13 [0.02; 0.40] | 1.0% |
| Slootmaekers et al., 2019 | 1 | 8 | 0.12 [0.00; 0.53] | 0.8% |
| Zheng et al., 2019 | 3 | 654 | 0.00 [0.00; 0.01] | 1.3% |
| Bosshart et al., 2020 | 0 | 1 | 0.00 [0.00; 0.98] | 0.3% |
| Merga et al., 2020 | 0 | 17 | 0.00 [0.00; 0.20] | 1.0% |
| Abidli et al., 2021 | 0 | 22 | 0.00 [0.00; 0.15] | 1.1% |
| Atamanalp et al., 2021a | 0 | 46 | 0.00 [0.00; 0.08] | 1.2% |
| Atici et al., 2021 | 0 | 5 | 0.00 [0.00; 0.52] | 0.7% |
| Galafassi et al., 2021 | 11 | 60 | 0.18 [0.10; 0.30] | 1.2% |
| Garcia et al., 2021a | 0 | 14 | 0.00 [0.00; 0.23] | 1.0% |
| Hou et al., 2021 | 1 | 64 | 0.02 [0.00; 0.08] | 1.2% |
| Kumkar et al., 2021 | 0 | 26 | 0.00 [0.00; 0.13] | 1.1% |
| Martinez–Tavera et al., 2021 | 14 | 45 | 0.31 [0.18; 0.47] | 1.2% |
| McIlwraith et al., 2021 | 2 | 38 | 0.05 [0.01; 0.18] | 1.2% |
| Toner and Midway, 2021 | 0 | 3 | 0.00 [0.00; 0.71] | 0.6% |
| *Random effects model* | | *1027* | *0.01 [0.00; 0.05]* | *15.9%* |
| Heterogeneity: $I^2 = 82\%$, $\tau^2 = 0.0169$, $p < 0.01$ | | | | |
| **Aquaculture** | | | | |
| Reinold et al., 2021 | 4 | 31 | 0.13 [0.04; 0.30] | 1.2% |
| Savoca et al., 2021 | 5 | 27 | 0.19 [0.06; 0.38] | 1.1% |
| *Random effects model* | | *58* | *0.15 [0.07; 0.26]* | *2.3%* |
| Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.57$ | | | | |
| **Market** | | | | |
| Ding et al., 2019b | 0 | 123 | 0.00 [0.00; 0.03] | 1.3% |
| Fang et al., 2019 | 3 | 111 | 0.03 [0.01; 0.08] | 1.3% |
| Parvin et al., 2021 | 0 | 10 | 0.00 [0.00; 0.31] | 0.9% |
| *Random effects model* | | *244* | *0.00 [0.00; 0.02]* | *3.5%* |
| Heterogeneity: $I^2 = 52\%$, $\tau^2 = 0.0024$, $p = 0.12$ | | | | |
| *Random effects model* | | *5854* | *0.06 [0.03; 0.09]* | *100.0%* |
| Heterogeneity: $I^2 = 94\%$, $\tau^2 = 0.0507$, $p < 0.01$ | | | | |
| Test for subgroup differences: $\chi^2_4 = 21.14$, df = 4 ($p < 0.01$) | | | | |

**Figure S15.** Forest plot for PA subgroup analysis. Red diamonds represent subgroup means. Total: total plastics found in each study. PA: number of PA found in each study. PA: Polyamide.