Spatial and Temporal Analysis of Meso- and Microplastic Pollution in the Ligurian and Tyrrhenian Seas

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Supporting Information

**Table S11**: A summary of the abundance, mass, and sampling location for each collected sample.

| Sample Number | Coordinates at start | Coordinates at end | Mesoplastic Abundance (Items/Km²) | Microplastic Abundance (Items/Km²) | Total Abundance (Items/Km²) | Sample Mass (G/KM²) |
|---------------|----------------------|--------------------|----------------------------------|----------------------------------|---------------------------|--------------------|
| 1             | N41° 30.807 E9° 23.543 | N41° 32.345 E9° 24.538 | 5,181                           | 4,145                           | 9,326                     | 11.40              |
| 2             | N41° 41.03 E9° 25.683 | N41° 42.602 E9° 25.867 | 21,336                         | 49,972                         | 71,308                    | 193.15             |
| 3             | N41° 47.029 E9° 25.98 | N41° 48.772 E9° 26.125 | 8,114                           | 38,540                         | 46,653                    | 286.51             |
| 4             | N42° 0.919 E9° 34.24  | N42° 02.711 E9° 34.952 | 11,848                         | 58,768                         | 70,616                    | 223.22             |
| 5             | N42° 22.66 E9° 38.477 | N42° 24.191 E9° 38.428 | 0                               | 6,940                          | 6,940                     | 17.93              |
| 6             | N42° 41.911 E9° 42.087 | N42° 42.087 E9° 42.087 | 3,902                           | 26,829                         | 30,731                    | 73.66              |
|   | N Latitude | E Latitude | X (m)    | Y (m)    | Z (m) | Scale Factor |
|---|------------|------------|----------|----------|-------|--------------|
| 7 | N42° 43.344 | E9° 31.037 | 9,123    | 19,767   | 28,890 | 97.31        |
| 8 | N42° 43.279 | E10° 8.546 | 26,189   | 41,154   | 67,344 | 213.79       |
| 9 | N42° 47.101 | E10° 26.48 | 1,488    | 3,719    | 5,206  | 16.73        |
| 10| N42° 53.01  | E10° 27.48 | 2,242    | 9,716    | 11,958 | 26.91        |
| 11| N42° 55.722 | E10° 12.00 | 6,281    | 26,382   | 32,663 | 54.02        |
| 12| N43° 0.919  | E9° 58.646 | 147,120  | 3,666,898| 3,814,018 | 3,298.40   |
| 13| N43° 21.325 | E10° 9.522 | 18,075   | 127,060  | 145,136 | 363.64       |
| 14| N43° 40.505 | E10° 10.55 | 9,989    | 21,643   | 31,633 | 86.57        |
| 15| N43° 53.989 | E10° 2.3   | 0        | 1,286    | 1,286  | 0.64         |
| 16| N43° 58.736 | E9° 46.464 | 22,711   | 71,682   | 94,393 | 287.44       |
| 17| N44° 6.78   | E9° 42.985 | 30,922   | 70,127   | 101,049 | 797.90      |
Figure SI1: A map of the sample locations with their numeric label. Labels were assigned based upon the order of collection (i.e. sample 1 was the first collected).
Figure SI2: Ratios for the particle sizes present within each shape category. The color legend used for all pie charts in the figure is displayed in lower left corner of the whole sample box.
Figure SI3: A comparison of a pristine polymer spectra (black) with spectra collected from representative particles from the sample (red). The polyethylene reference is compared to the spectra of a representative pellet (A). The polystyrene reference is compared to the spectra of a representative foam (B). The polyamide reference is compared to the spectra of representative fragment (C). The polypropylene reference spectrum is compared to an additional representative fragment (D). Representative particles are shown as insets in the lower left corner of their spectra.