Supplementary Material

# Supplementary Data

## Correlation Statistics on Abundance Data

Spearman Rho: Total Abundance; Transect area size

|  |  |
| --- | --- |
| Spearman rho | 0.762 |
| P-value | 0.017 |

Spearman Rho: Total Abundance; No. Observers

|  |  |
| --- | --- |
| Spearman rho | 0.863 |
| P-value | 0.003 |

Correlation: Total Abundance; Transect area size

|  |  |
| --- | --- |
| Pearson correlation | 0.219 |
| P-value | 0.571 |

Correlation: Total Abundance; No. Observers

|  |  |
| --- | --- |
| Pearson correlation | 0.596 |
| P-value | 0.091 |

## Correlation Statistics on Mass Data

Spearman Rho: Total Mass; Transect area size

|  |  |
| --- | --- |
| Spearman rho | 0.495 |
| P-value | 0.061 |

Spearman Rho: Total Mass; No. Observers

|  |  |
| --- | --- |
| Spearman rho | 0.659 |
| P-value | 0.007 |

Correlation: Total Mass; Transect area size

|  |  |
| --- | --- |
| Pearson correlation | -0.075 |
| P-value | 0.791 |

Correlation: Total Mass; No. Observers

|  |  |
| --- | --- |
| Pearson correlation | 0.032 |
| P-value | 0.910 |

# Supplementary Tables

Supplementary Table 1 Date prints of provenance debris, showing timeframe, production/expiry year, quantities, provenance if applicable (if not: n.i.= not identified) and proportions [%].

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Timeframe | Production/expiry year | Quantity | Provenance | Proportion [%] |
| 2000 – 2013  48% | 2012-2013 | 1 | Germany | 5 |
| 2008 | 1 | Germany | 5 |
| 2007 | 1 | Netherlands/Holland | 5 |
| 2006 | 3 | Russia, Turkey, n.i. | 14 |
| 2003 | 3 | Denmark, 2 n.i. | 14 |
| 2000 | 1 | not identified | 5 |
| 1980-2000  24% | 1996 | 2 | Germany, Norway | 10 |
| 1992 | 1 | Germany | 5 |
| 1990 - 1996 | 1 | UK | 5 |
| 1980 - 1990 | 1 | Denmark | 5 |
| 1970 - 1979  24% | 1979 | 2 | Russia (Soviet Union), n.i. | 10 |
| 1971 | 2 | Norway, n.i. | 10 |
| 1970 | 1 | UK | 5 |
| 1960 ≥  5% | 1960 | 1 | Norway | 5 |
| Total |  | 21 |  | 100 |

Supplementary Table 2 Polymer composition of analyzed debris, showing quantity and proportion [%] of polymers. PE = Polyethylene, PP = Polypropylene

|  |  |  |  |
| --- | --- | --- | --- |
| Groups | Polymer | Quantity | Proportion [%] |
| PE types 61.4% | Polyethylene High Density | 112 | 50 |
| Polyethylene Low Density | 25 | 11 |
| Polyethylene Chlorinated | 1 | 0.4 |
| PP types 31% | Polypropylene | 57 | 25 |
| Fiber Polypropylene Dyed | 6 | 3 |
| Fiber Polypropylene | 5 | 2 |
| Polypropylene Isotactic | 1 | 0.4 |
| Ethylene Propylene | 1 | 0.4 |
| Other 7% | Fiber Polyester | 7 | 3 |
| Nylon 6\_6 | 3 | 1 |
| Styrene Acrylonitrile | 2 | 1 |
| Fiber Polyamide 6 | 1 | 0.4 |
| Polyether urethane | 1 | 0.4 |
| Poly(diallyl isophthalate) | 1 | 0.4 |
| Polyurethane | 1 | 0.4 |
|  | Total | 224 | 100 |