

Table S1: Abundances of foraminifera colonizing elevated plastics from Station M. Total foraminiferal abundances at each centimeter interval above the sediment-water interface. Different substrate types are composed of different plastics. The White Fiberglass Flagpole and Main Flagpole are both made from fiberglass. While the Black Flagpole is composed of a silicon polymer and/or polyethylene terephthalate (PET), White Flagpole is made from acrylonitrile-butadiene-styrene (ABS), Grey Flagpole made from polyvinyl chloride (PVC), and the Green Flagpole from polypropylene (PP). Data from this table was used in generating Figures 4 and 6 as well as Table 1

SEA³	Substrate type	Height above seafloor	Number of Foraminifera
SEA ³⁶	White Flagpole	27- top of flag	1
SEA ³⁶	White Flagpole	26	1
SEA ³⁶	White Flagpole	25	2
SEA ³⁶	White Flagpole	24	1
SEA ³⁶	White Flagpole	21	3
SEA ³⁶	White Flagpole	17	3
SEA ³⁶	White Flagpole	16	1
SEA ³⁶	White Flagpole	14	1
SEA ³⁶	White Flagpole	13	1
SEA ³⁶	White Flagpole	12	1
SEA ³⁶	White Flagpole	10	1
SEA ³⁶	Grey Flagpole	27	1
SEA ³⁶	Grey Flagpole	26	1
SEA ³⁶	Grey Flagpole	24	1
SEA ³⁶	Grey Flagpole	23	2
SEA ³⁶	Grey Flagpole	13	2
SEA ³⁶	Grey Flagpole	12	1
SEA ³⁶	Grey Flagpole	10	1
SEA ³⁶	White Fiberglass Flagpole	23	1
SEA ³⁶	White Fiberglass Flagpole	21	1
SEA ³⁶	White Fiberglass Flagpole	18	2
SEA ³⁶	White Fiberglass Flagpole	17	2
SEA ³⁶	White Fiberglass Flagpole	15	1
SEA ³⁶	White Fiberglass Flagpole	12	2
SEA ³⁶	White Fiberglass Flagpole	1	1
SEA ³⁶	Main Flagpole	27- top of flag	3
SEA ³⁶	Main Flagpole	25	1

SEA³	Substrate type	Height above seafloor	Number of Foraminifera
SEA ³⁶	Main Flagpole	24	1
SEA ³⁶	Main Flagpole	22	1
SEA ³⁶	Main Flagpole	21	1
SEA ³⁶	Main Flagpole	20	4
SEA ³⁶	Main Flagpole	18	1
SEA ³⁶	Main Flagpole	17	1
SEA ³⁶	Main Flagpole	17	1
SEA ³⁶	Main Flagpole	15	1
SEA ³⁶	Main Flagpole	13	2
SEA ³⁶	Main Flagpole	11	1
SEA ³⁶	Black Flagpole	23	1
SEA ³⁶	Black Flagpole	21	1
SEA ³⁷	White Flagpole	21	1
SEA ³⁷	White Flagpole	18	1
SEA ³⁷	White Flagpole	10	1
SEA ³⁷	White Flagpole	24	2
SEA ³⁷	White Flagpole	22	2
SEA ³⁷	Grey Flagpole	24	1
SEA ³⁷	Grey Flagpole	18	1
SEA ³⁷	Grey Flagpole	17	1
SEA ³⁷	Grey Flagpole	16	1
SEA ³⁷	Grey Flagpole	10	1
SEA ³⁷	White Fiberglass Flagpole	25	1
SEA ³⁷	White Fiberglass Flagpole	22	1
SEA ³⁷	White Fiberglass Flagpole	17	1
SEA ³⁷	White Fiberglass Flagpole	15	1
SEA ³⁷	White Fiberglass Flagpole	8	2
SEA ³⁷	Main Flagpole	26	1
SEA ³⁷	Main Flagpole	16	1
SEA ³⁷	Main Flagpole	15	1
SEA ³⁷	Main Flagpole	14	1
SEA ³⁷	Main Flagpole	13	1
SEA ³⁷	Main Flagpole	20	2
SEA ³⁷	Main Flagpole	19	2

SEA³	Substrate type	Height above seafloor	Number of Foraminifera
SEA ³⁷	Main Flagpole	17	2
SEA ³⁷	Black Flagpole	17	1
SEA ³⁷	Green Flagpole	22	1
SEA ³⁷	Green Flagpole	20	1
SEA ³⁷	Green Flagpole	19	1
SEA ³⁷	Green Flagpole	18	1
SEA ³⁷	Green Flagpole	17	1
SEA ³⁷	Green Flagpole	16	1
SEA ³⁷	Green Flagpole	13	1
SEA ³⁸	White Flagpole	13	1
SEA ³⁸	White Flagpole	14	1
SEA ³⁸	White Flagpole	17	1
SEA ³⁸	White Flagpole	18	1
SEA ³⁸	White Flagpole	19	1
SEA ³⁸	White Flagpole	20	1
SEA ³⁸	White Flagpole	21	1
SEA ³⁸	White Flagpole	23	1
SEA ³⁸	White Flagpole	26	1
SEA ³⁸	White Flagpole	15	2
SEA ³⁸	White Flagpole	23	2
SEA ³⁸	White Flagpole	24	2
SEA ³⁸	White Flagpole	22	3
SEA ³⁸	Grey Flagpole	18	3
SEA ³⁸	Grey Flagpole	26	2
SEA ³⁸	Grey Flagpole	14	1
SEA ³⁸	Grey Flagpole	15	1
SEA ³⁸	Grey Flagpole	17	1
SEA ³⁸	Grey Flagpole	20	1
SEA ³⁸	Grey Flagpole	21	1
SEA ³⁸	Grey Flagpole	22	1
SEA ³⁸	Grey Flagpole	24	1
SEA ³⁸	White Fiberglass Flagpole	25	3
SEA ³⁸	White Fiberglass Flagpole	23	1
SEA ³⁸	White Fiberglass Flagpole	20	1

SEA³	Substrate type	Height above seafloor	Number of Foraminifera
SEA ³⁸	White Fiberglass Flagpole	20	3
SEA ³⁸	White Fiberglass Flagpole	19	1
SEA ³⁸	White Fiberglass Flagpole	17	1
SEA ³⁸	White Fiberglass Flagpole	16	3
SEA ³⁸	White Fiberglass Flagpole	14	1
SEA ³⁸	White Fiberglass Flagpole	14	2
SEA ³⁸	White Fiberglass Flagpole	13	2
SEA ³⁸	White Fiberglass Flagpole	12	2
SEA ³⁸	White Fiberglass Flagpole	11	2
SEA ³⁸	White Fiberglass Flagpole	4	1
SEA ³⁸	White Fiberglass Flagpole	3	2
SEA ³⁸	Main Flagpole	24	1
SEA ³⁸	Main Flagpole	22	1
SEA ³⁸	Main Flagpole	20	1
SEA ³⁸	Main Flagpole	19	1
SEA ³⁸	Main Flagpole	18	1
SEA ³⁸	Main Flagpole	17	2
SEA ³⁸	Main Flagpole	16	1
SEA ³⁸	Main Flagpole	14	1
SEA ³⁸	Main Flagpole	11	1
SEA ³⁸	Black Flagpole	19	1
SEA ³⁸	Black Flagpole	18	1
SEA ³⁸	Black Flagpole	13	1
SEA ³⁸	Black Flagpole	11	1
SEA ³⁸	Black Flagpole	3	1
SEA ³⁸	Green Flagpole	25	1
SEA ³⁸	Green Flagpole	19	1
SEA ³⁸	Green Flagpole	18	1
SEA ³⁸	Green Flagpole	15	1
SEA ³⁸	Green Flagpole	14	2
SEA ³⁸	Green Flagpole	13	2
SEA ³⁸	Green Flagpole	12	1
SEA ³⁸	Green Flagpole	11	1
SEA ³⁹	White Flagpole	26	2

SEA³	Substrate type	Height above seafloor	Number of Foraminifera
SEA ³⁹	White Flagpole	24	1
SEA ³⁹	White Flagpole	23	1
SEA ³⁹	White Flagpole	21	1
SEA ³⁹	White Flagpole	20	1
SEA ³⁹	White Flagpole	19	2
SEA ³⁹	White Flagpole	18	1
SEA ³⁹	White Flagpole	17	1
SEA ³⁹	White Flagpole	16	1
SEA ³⁹	White Flagpole	15	1
SEA ³⁹	White Flagpole	13	2
SEA ³⁹	White Flagpole	11	2
SEA ³⁹	White Flagpole	8	1
SEA ³⁹	Grey Flagpole	25	1
SEA ³⁹	Grey Flagpole	23	1
SEA ³⁹	Grey Flagpole	21	1
SEA ³⁹	Grey Flagpole	19	2
SEA ³⁹	Grey Flagpole	15	1
SEA ³⁹	Grey Flagpole	14	1
SEA ³⁹	Grey Flagpole	12	2
SEA ³⁹	Grey Flagpole	11	1
SEA ³⁹	Grey Flagpole	7	1
SEA ³⁹	White Fiberglass Flagpole	25	2
SEA ³⁹	White Fiberglass Flagpole	22	1
SEA ³⁹	White Fiberglass Flagpole	8	2
SEA ³⁹	Main Flagpole	24	1
SEA ³⁹	Main Flagpole	22	1
SEA ³⁹	Main Flagpole	21	1
SEA ³⁹	Main Flagpole	18	1
SEA ³⁹	Main Flagpole	16	2
SEA ³⁹	Main Flagpole	15	1
SEA ³⁹	Main Flagpole	14	1
SEA ³⁹	Main Flagpole	13	1
SEA ³⁹	Main Flagpole	8	1
SEA ³⁹	Main Flagpole	7	2

SEA³	Substrate type	Height above seafloor	Number of Foraminifera
SEA ³⁹	Main Flagpole	1	2
SEA ³⁹	Black Flagpole	25	1
SEA ³⁹	Black Flagpole	24	1
SEA ³⁹	Black Flagpole	21	1
SEA ³⁹	Black Flagpole	19	1
SEA ³⁹	Black Flagpole	19	1
SEA ³⁹	Black Flagpole	14	1
SEA ³⁹	Black Flagpole	13	1
SEA ³⁹	Black Flagpole	11	1
SEA ³⁹	Green Flagpole	27	1
SEA ³⁹	Green Flagpole	26	2
SEA ³⁹	Green Flagpole	25	2
SEA ³⁹	Green Flagpole	24	2
SEA ³⁹	Green Flagpole	23	1
SEA ³⁹	Green Flagpole	22	1
SEA ³⁹	Green Flagpole	21	3
SEA ³⁹	Green Flagpole	20	1
SEA ³⁹	Green Flagpole	19	1
SEA ³⁹	Green Flagpole	17	1
SEA ³⁹	Green Flagpole	16	2
SEA ³⁹	Green Flagpole	13	1
SEA ³⁹	Green Flagpole	12	1

Table S2: Weights of calcite spars included inside of the SEA³s. The dry weight were recorded using a 4 decimal place scale before and after the deployment of the experimental substrates. No difference in weights was observed after recovery.

SEA ³	Calcite weight (g)
SEA ³ 6	4.6160
SEA ³ 7	4.6249
SEA ³ 8	3.8800
SEA ³ 9	5.3930

Table S3: Total foraminiferal ecologies obtained from tubecores collected at Station M. All values are standardized per 50 cm³ and average living depth calculated for each species.

MBARI October 2019									
TC1									
Interval	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	Average living depth
	0–1 cm	1– 1.5 cm	1.5– 2 cm	2– 2.5 cm	2.5– 3 cm	3–4 cm	4–5 cm	Total	
Original sediment volume	36	18	18	18	18	36	36		
Sample split	0	0	0	0	0	0	0		
Species									
<i>Cibicidoides wuellerstorfi</i> var <i>lobotulus</i> (Schwager, 1866)	3	0	0	0	0	0	0	3	0.50
<i>Cribrostomoides</i> sp. (Cushman, 1910)	1	1	1	0	0	0	0	3	1.17
<i>Cribrostomoides subglobosa</i> (Cushman, 1910)	0	1	1	0	0	0	0	3	1.50

<i>Epistominella exigua</i> (Brady, 1884)	0	0	0	1	0	6	0	7	3.25
<i>Eratidus foliaceus</i> (Brady, 1881)	11	4	1	0	1	0	0	18	0.94
<i>Fissurina annectens</i> (Burrows & Holland, 1895)	0	0	0	0	0	0	1	1	4.50
<i>Globobulimina affinis</i> (d'Orbigny, 1839)	3	0	0	19	0	23	6	51	2.97
<i>Glomospira gordialis</i> (Jones & Parker, 1860)	0	0	0	0	0	0	1	1	4.50
<i>Haplophragmoides</i> sp. (Cushman, 1910)	0	4	0	0	0	1	1	7	2.35
<i>Hormosina brevis</i> (Parr, 1950)	0	4	0	0	0	0	0	4	1.25
<i>Hormosina globulifera</i> (Brady, 1879)	0	0	0	0	0	0	0	0	
<i>Hormosina</i> sp. (Brady, 1879)	0	0	0	0	0	0	0	0	
<i>Hormosinella distans</i> (Brady, 1881)	0	0	0	1	0	0	0	1	2.25
<i>Hormosinella ovicula</i> (Brady, 1879)	0	1	0	0	0	0	0	1	1.25
<i>Hormosinelloides guttifer</i> (Brady, 1881)	0	1	4	0	6	0	0	11	2.25
<i>Hyperammina elongata</i> (Brady, 1878)	0	0	0	0	1	0	0	1	2.75

<i>Hyperammina</i> sp. (Brady, 1878)	0	0	0	0	0	0	0	0	
<i>Karreriella</i> <i>bradyi</i> (Cushman, 1911)	3	0	0	0	0	0	0	3	0.50
<i>Lagena</i> spp. (Walker & Jacob, 1798)	0	0	0	0	0	1	1	3	4.00
<i>Martinottiella</i> <i>variabilis</i> (Schwager, 1866)	8	0	0	0	0	0	0	8	0.50
<i>Melonis</i> <i>pompilioides</i> (Fichtel & Moll, 1798)	0	0	0	0	0	0	1	1	4.50
<i>Nodosinum</i> <i>gaussicum</i> (Rhumbler, 1913)	3	3	0	0	1	0	0	7	1.25
<i>Nodulina</i> <i>dentaliniformis</i> (Brady, 1881)	0	0	0	0	0	0	0	0	
<i>Nodulina</i> <i>dentaliniformis</i> (Brady, 1881)	3	0	0	0	0	0	0	3	0.50
<i>Oridolalis</i> <i>umbonatus</i> (Reuss, 1851)	6	0	0	0	0	1	0	7	1.10
<i>Paratrochammi</i> <i>na challengerii</i> (Brönnimann & Whittaker, 1988)	0	1	4	1	0	0	0	7	1.75
<i>Psammosphaera</i> <i>parva</i> (Flint, 1899)	0	7	0	0	0	0	0	7	1.25
<i>Pseudonodosine</i> <i>lla nodulosa</i> (Brady, 1879)	0	0	0	1	1	0	0	3	2.50

<i>Pyrgoella</i> sp. (Cushman & White, 1936)	0	0	0	0	0	3	6	8	4.17
<i>Reophax</i> <i>horridulus</i> (Schwager, 1865)	47	6	1	0	1	0	3	58	0.85
<i>Reophax</i> <i>pilulifera</i> (Brady, 1884)	14	0	0	1	0	0	0	15	0.62
<i>Reophax</i> sp. (Montfort, 1808)	25	6	0	1	3	1	0	36	0.97
<i>Rhabdammina</i> <i>abyssorum</i> (Sars in Carpenter, 1869)	0	0	0	0	0	0	0	0	
<i>Rhabdammina</i> spp. (Sars in Carpenter, 1869)	15	7	6	0	6	0	0	35	1.30
<i>Saccorhiza</i> <i>ramosa</i> (Brady, 1879)	7	4	3	0	3	0	0	17	1.30
<i>Sagenina</i> sp. (Chapman, 1900)	0	0	1	0	1	0	0	3	2.25
<i>Spiroloculina</i> sp. (d'Orbigny, 1826)	0	0	0	0	0	1	0	1	3.50
<i>Spirosigmoilina</i> <i>tenuis</i> (Czjžek, 1848)	3	0	0	0	0	0	0	3	0.50
<i>Tholosina</i> sp. (Rhumbler, 1895)	0	0	0	0	0	0	7	7	4.50
<i>Trochammina</i> sp. (Parker & Jones, 1859)	2	1	3	0	3	0	0	9	1.70
<i>Uvigerina</i> <i>hispida</i> (Schwager, 1866)	0	0	0	0	0	0	1	1	4.50

<i>Uvigerina</i> sp. (d'Orbigny, 1826)	6	0	0	0	0	7	1	14	2.40
Unidentified Agglutinated sp.	0	3	0	0	0	0	0	3	1.25
Unidentified	0	0	6	0	0	0	0	6	1.75
Total Agglutinates	144	54	33	27	29	33	19	340	1.59
Total Calcareous	14	0	0	0	0	12	11	37	2.69
Total Foraminifera	157	54	33	27	29	45	30	377	1.70

MBARI October 2019									
TC2									
	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	per 50 cm ³	Average living depth
Interval	0– 1 cm	1– 1.5 cm	1.5– 2 cm	2– 2.5 cm	2.5– 3 cm	3– 4 cm	4– 5 cm	Total	
Original sediment volume	36	18	18	18	18	36	36		
Sample split	0	0	0	0	0	0	0		
Species									
<i>Cibicidoides wuellerstorfi</i> var <i>lobotulus</i> (Schwager, 1866)	0	0	0	0	0	0	0	0	
<i>Cribrostomoides sp.</i> (Cushman, 1910)	1	0	0	4	0	0	0	5	1.90
<i>Cribrostomoides subglobosa</i> (Cushman, 1910)	0	0	0	6	0	0	1	7	2.67
<i>Epistominella exigua</i> (Brady, 1884)	0	0	0	0	0	0	0	0	
<i>Eratidus foliaceus</i> (Brady, 1881)	0	0	0	3	0	0	0	3	2.25

<i>Fissurina annectens</i> (Burrows & Holland, 1895)	1	0	0	0	0	0	0	1	0.50
<i>Globobulimina affinis</i> (d'Orbigny, 1839)	0	0	0	0	0	11	1	12	3.61
<i>Glomospira gordialis</i> (Jones & Parker, 1860)	0	0	6	0	3	3	0	11	2.44
<i>Haplophragmoides</i> sp. (Cushman, 1910)	4	3	3	0	3	0	0	12	1.44
<i>Hormosina brevis</i> (Parr, 1950)	1	0	0	0	0	0	0	1	0.50
<i>Hormosina globulifera</i> (Brady, 1879)	0	0	0	6	0	0	4	10	3.21
<i>Hormosina</i> sp. (Brady, 1879)	0	0	8	6	0	3	0	17	2.21
<i>Hormosinella distans</i> (Brady, 1881)	0	0	0	11	0	0	0	11	2.25
<i>Hormosinella ovicula</i> (Brady, 1879)	0	0	0	14	0	0	0	14	2.25
<i>Hormosinelloides guttifer</i> (Brady, 1881)	4	6	19	25	0	4	3	61	2.07
<i>Hyperammina elongata</i> (Brady, 1878)	1	0	0	0	0	0	0	1	0.50
<i>Hyperammina</i> sp. (Brady, 1878)	0	0	6	0	0	0	0	6	1.75
<i>Karriella bradyi</i> (Cushman, 1911)	1	0	3	0	0	0	0	5	1.06
<i>Lagena</i> spp. (Walker & Jacob, 1798)	1	6	3	0	0	0	0	10	1.29
<i>Martinottiella variabilis</i> (Schwager, 1866)	0	0	0	3	0	0	0	3	2.25

<i>Melonis pompilioides</i> (Fichtel & Moll, 1798)	0	0	0	0	0	0	0	0	
<i>Nodosinum gaussicum</i> (Rhumbler, 1913)	0	0	3	3	0	0	0	6	2.00
<i>Nodulina dentaliniformis</i> (Brady, 1881)	0	0	0	0	0	0	0	0	
<i>Nodulina dentaliniformis</i> (Brady, 1881)	7	0	0	3	0	0	0	10	1.00
<i>Oridolalis umbonatus</i> (Reuss, 1851)	1	0	0	0	0	0	0	1	0.50
<i>Paratrochammina challengeri</i> (Brönnimann & Whittaker, 1988)	1	3	0	14	0	0	4	22	2.44
<i>Psammosphaera parva</i> (Flint, 1899)	32	0	0	0	0	0	0	32	0.50
<i>Pseudonodosinella nodulosa</i> (Brady, 1879)	0	0	0	0	0	0	0	0	
<i>Pyrgoella</i> sp. (Cushman & White, 1936)	0	0	0	0	0	0	0	0	
<i>Reophax horridulus</i> (Schwager, 1865)	4	8	6	0	0	0	0	18	1.23
<i>Reophax pilulifera</i> (Brady, 1884)	0	0	0	0	0	0	0	0	
<i>Reophax</i> sp. (Montfort, 1808)	0	8	6	3	0	0	0	17	1.59
<i>Rhabdammina abyssorum</i> (Sars in Carpenter, 1869)	3	0	0	0	0	0	0	3	0.50
<i>Rhabdammina</i> spp. (Sars in Carpenter, 1869)	26	9	31	13	7	4	0	90	1.57

<i>Saccorhiza ramosa</i> (Brady, 1879)	13	5	16	6	4	2	0	45	1.57
<i>Sagenina sp.</i> (Chapman, 1900)	0	0	0	0	0	0	0	0	
<i>Spiroloculina sp.</i> (d'Orbigny, 1826)	0	0	0	0	0	0	0	0	
<i>Spirosigmoilina</i> <i>tenuis</i> (Czjžek, 1848)	0	0	0	0	0	0	0	0	
<i>Tholosina sp.</i> (Rhumbler, 1895)	0	0	0	0	3	0	0	3	2.75
<i>Trochammina sp.</i> (Parker & Jones, 1859)	2	0	0	3	0	0	1	6	2.18
<i>Uvigerina hispida</i> (Schwager, 1866)	0	0	0	0	0	3	0	3	3.50
<i>Uvigerina sp.</i> (d'Orbigny, 1826)	0	0	0	0	0	0	0	0	
Unidentified Agglutinated sp.	1	3	3	3	0	0	0	10	1.57
Unidentified	2	0	0	0	0	0	0	2	0.50
Total Agglutinates	105	44	107	123	19	26	15	442	1.78
Total Calcareous	3	6	3	0	0	3	0	14	1.65
Total Foraminifera	108	50	110	123	19	29	15	456	1.77