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Abstract: Life for many of the world's marine fish begins at the ocean surface. Ocean conditions dictate food availability and govern survivorship, yet little is known about the habitat preferences of larval fish during this highly vulnerable life-history stage. Here we show that surface slicks, a ubiquitous coastal ocean convergence feature, are important nurseries for larval fish from many ocean habitats at ecosystem-scales. Slicks had higher densities of marine phytoplankton (1.7-fold), zooplankton (larval fish prey; 3.7-fold), and larval fish (8.1-fold) than nearby ambient waters across our study region in Hawai‘i. Slicks contained larger, more well-developed individuals with competent swimming abilities compared to ambient waters, suggesting a physiological benefit to increased prey-resources. Slicks also disproportionately accumulated prey-size plastics, resulting in a 60-fold higher ratio of plastics to larval fish prey than nearby waters. Dissections of hundreds of larval fish found that 8.6% of individuals in slicks had ingested plastics, a 2.3-fold higher occurrence than larval fish from ambient waters. Plastics were found in 7 of 8 families dissected, including swordfish (Xiphiidae), a commercially-targeted species, and flying fish (Exocoetidae), a principle prey item for tuna and seabirds. Scaling-up across a ~1000 km^2 coastal ecosystem in Hawai‘i revealed slicks occupied only 8.3% of ocean surface habitat but contained 42.3% of all neustonic larval fish and 91.8% of all floating plastics. The ingestion of plastics by larval fish could reduce survivorship, compounding threats to fisheries productivity posed by overfishing, climate change, and habitat loss.

Keywords: larval fish; nursery habitat; microplastics; surface slicks

Significance Statement: Many of the world's marine fish spend the first days to weeks feeding and developing at the ocean surface. However, very little is known about the ocean processes that govern larval fish survivorship and hence adult fish populations that supply essential nutrients and protein to human societies. We demonstrate that surface slicks, meandering lines of convergence on the ocean surface, are important larval fish nurseries that disproportionately accumulate toxin-laden prey-size plastics. Plastic pieces were found in numerous larval fish taxa at a time when nutrition is critical for survival. Surface slicks are a ubiquitous coastal ocean feature, suggesting that plastic accumulation in these larval fish nurseries could have far reaching ecological and socioeconomic impacts.

Introduction: The majority of marine fish begin life in pelagic waters (1). Larval fish spend the first days to weeks feeding and developing at the ocean surface before recruiting to their natal habitat. Surviving this highly vulnerable life stage depends upon ocean conditions that affect food-availability, growth-rates, and predation (2). However, the ocean processes that influence larval fish survivorship and hence adult fish populations are poorly understood. Ocean processes that drive convergence of surface waters can form dense aggregations of planktonic organisms that represent an oasis of prey for larval fish (3). Surface slicks are narrow, meandering lines of ocean convergence that are a common feature in coastal marine ecosystems globally (4). Whether and how surface slicks are important to larval fish dynamics is currently unknown. Understanding the ocean processes that govern larval fish survivorship is critical for predicting and managing fisheries that provide sustenance and livelihood for hundreds of millions of people.

Here we show that surface slicks represent important larval fish nurseries at ecosystem-scales. We studied a ~1000 km^2 area along the west coast of Hawai‘i Island (hereafter West Hawai‘i), the southeastern most island in the Hawaiian Archipelago (Fig. 1A), where slicks are often widely distributed on the ocean surface (Fig. 1B, C). Slicks form predominantly as a consequence of subsurface waves, called internal waves, generated by tidal flow past steep seafloor topography (4). Areas of convergence and divergence on the ocean surface form above the internal waves. The convergence areas are often rich in organic material including surfactants that modify surface tension and dampen wave-ripple formation causing a smooth, oil-slick like appearance (5) (Fig. 2A). The seafloor along West Hawai‘i is steeply sloped resulting in oceanic waters abutting this long coastline. Marine fish from pelagic, deep-water mesopelagic, and shallow coral reef habitats are all within a few kilometers or less of shore. We used this model system to quantify the accumulation of planktonic organisms, including larval fish, in surface slicks compared to ambient waters.

Results and Discussion: We conducted 100 neuston (≤ 1 m depth) plankton tows during three multi-day (12–21 d) field expeditions from 2016–2018 in the coastal waters of West Hawai‘i (Materials and Methods ‘Neuston tows’; SI Appendix, Fig. S1). We found that median densities of phytoplankton (i.e., chlorophyll-*a*), zooplankton (i.e., larval fish prey), and larval fish were 1.7-, 3.7-, and 8.1-fold higher, respectively, in surface slicks compared to neighboring ambient waters (Fig. 2B). The convergence of ocean surface waters aggregates marine organisms at the base of the food chain, creating complex spatial gradients in plankton and larval fish abundance across what might otherwise appear to be a featureless ocean surface habitat.

Ocean surface productivity increases with proximity to tropical islands (6) and is further accentuated by small-scale ocean processes (7), such as surface slicks. Basal requirements for larval survival, such as food-resources, are similar among fish species (8). Larval fish from multiple ocean habitats would therefore benefit from accumulated prey in surface slicks. We found the median density of larval fish from pelagic habitats, such as swordfish (Xiphiidae) and mahi-mahi (Coryphaenidae), were 28.0-fold higher in slicks over ambient waters (Fig. 2C). Similarly, shallow coral reef fish, including jacks (Carangidae) and goatfish (Mullidae), and deep-water mesopelagic fish, such as lanternfish (Myctophidae) and bristlemouths (Gonostomatidae), were 4.6- and 2.7-fold higher in surface slicks, respectively (Fig. 2C). In addition, the composition of larval fish by natal habitat differed between slicks and ambient waters. Surface slicks contained similar abundances of larval fish from pelagic (50.1%) and coral reef (44.9%) habitats (Fig. 2D). In contrast, ambient waters were dominated by larval coral reef fish (73.6%; Fig. 2D).

Development and swimming competency are important for larval fish survivorship (9). Swimming competency, including both speed and duration, increases with larval fish size and with the development of complete fin formation (1). For many tropical larval fish, fin formation occurs between 4–10 mm (1). We found that the median larval fish size was 6.1 mm in surface slicks ([6.2, 6.0] 95% confidence intervals), 25.6% larger in total length than the median size of 4.8 mm found for larval fish in ambient waters ([5.0, 4.7]). The relative abundance of competent swimmers, defined here as ≥ 8 mm in total length, was 2.1-fold higher in surface slicks (22.7%) than in ambient waters (10.7%, Fig. 2E). Swimming endurance is on the order of tens of kilometers for a number of tropical larval fish (10). Based on remote sensing of surface slicks (Materials and Methods ‘Remote sensing’), we found that nearly half (49.4 ± 2.8%; mean ± s.d.) of all ambient nearshore (≤ 6.5 km) waters in West Hawai‘i are within 500 m of a surface slick (Fig. 1C and SI Appendix, Fig. S2). This is an achievable swimming distance, particularly for larger, more well-developed larval fish. The aggregation of larger larval fish in surface slicks could result from vertical movement (i.e., swimming upward against downwelling currents), horizontal movement (i.e., directed swimming targeting slicks), or a combination of both. Given that larval fish with increased swimming competency can orient to their environment (11), tropical larval fish could be actively targeting surface slicks to capitalize on concentrated prey-resources.

The fluid dynamic processes that aggregate planktonic organisms in surface slicks were also found to concentrate buoyant, passively floating plastics (Fig. 2A). Plastics are dispersed throughout the world's oceans (12), but are not uniformly distributed. The accumulation of plastics in large-scale oceanic features, such as subtropical gyres, has been well-documented (13, 14). The degree to which plastics accumulate in local-scale (10s m–km), ecologically-important ocean surface features, such as surface slicks, was previously unknown. We found that median plastic density was 126-fold higher in slicks than in ambient waters (Fig. 2B). To put this into context, median and maximum plastic densities in slicks along West Hawai‘i were 8.0- and 12.7-fold higher than the respective plastic densities recently sampled in the Great Pacific Garbage Patch (13) (Materials and Methods 'GPGP comparison'). The majority of plastics sampled were small (< 5 mm) fragmented pieces (SI Appendix, Table S2). Plastic fragments are principally derived from the breakdown of larger plastics owing to degradative processes (e.g., photodegradation, biodegradation, and hydrolysis) that can take months to years (15). While locally generated municipal waste may have contributed to the high plastic densities we observed in surface slicks off West Hawai‘i, the proportion is presumed nominal given the short residence times of oceanic waters in Hawai‘i and the dominance of non-locally generated plastic pollution that accumulates on Hawai‘i's beaches annually (16).

Comparing plastic with larval fish densities in slicks revealed a positive relationship ($R = 0.57$, $P < 0.001$; Fig. 3A), with plastics outnumbering larval fish by 7:1 (Fig. 3B). In contrast, the plastic to larval fish ratio in ambient waters was reversed (1:2) and showed no relationship ($R = 0.08$, $P = 0.62$). Along with higher densities of plastics, we found the size distribution of plastics was skewed towards smaller particles in slicks. Prey-size preference for larval fish broadly scales with their size but is generally less than 1 mm (17). The relative abundance of prey-size (≤ 1 mm) plastics was 40.9% higher in slicks compared to ambient waters (41.0% slicks; 29.1% ambient; Fig. 3C). The ratio of prey-size plastics to prey-size zooplankton was 60-fold higher in slicks (1:55) compared to ambient waters (1:3253) (Fig. 3D). Continuous fragmentation and degradation of plastics in the ocean will presumably increase the amount of prey-size plastics accumulating in surface slicks through time.

Plastics are derived from a variety of synthetic polymers (18). Polymer type dictates buoyancy characteristics, varies by product origin, and influences the toxicity potential to marine organisms (19). The composition of plastics captured in surface slicks was overwhelmingly dominated by the floating polymers polyethylene and polypropylene (97.2%; Fig. 3E; Materials and Methods 'Polymer identification', SI Appendix, Table S2). These polymers are used in single-use consumer items (e.g., plastic bags, food cartons, and bottled water) (18) and in materials commonly used in marine-based industries, such as shipping, aquaculture, and fishing (e.g., crates, buckets, rope, and nets) (20). The most dominant polymer found in slicks, polyethylene (76.6%), is known to sorb pollutants more readily than other polymers and may serve as a vector for contaminants to marine fauna (21).

Plastic ingestion occurs in a variety of marine organisms (12), yet limited information exists for larval fish (22). To our knowledge, no prior information exists on larval fish plastic ingestion in tropical marine ecosystems. After dissecting 658 larval fish (Materials and Methods 'Dissection'), plastic particles were found in 42 individuals across 7 of the 8 families inspected (SI Appendix, Table S3). Plastic ingestion by larval fish was 2.3-fold higher ($P < 0.001$) in surface slicks (8.6%) than in ambient waters (3.7%). Plastic particles were found in commercially targeted pelagic species, including swordfish (Xiphiidae) and mahi-mahi (Coryphaenidae), as well as in coral reef species, including triggerfish (Balistidae) and sergeant-majors (Pomacentridae). Plastics were also found in flying fish (Exocoetidae), a principle prey item for apex predators such as tuna (23) and most Hawaiian seabird species (24). Ingested pieces were nearly all (93%) microfibers (e.g., polyester, nylon, polyethylene terephthalate, rayon, and artificial cellulose) and were primarily blue or translucent in color (Fig. 3F-H; SI Appendix, Table S3). Blue pigmentation is an adaptation for living at the ocean surface that is common among neustonic zooplankton (25). It is possible that larval fish confuse the thread-like ocean colored plastic particles for copepod antennae, an important prey-resource (26).

Surface slicks concentrate prey-size plastics and increase the probability of encounter and ingestion by larval fish. Currently, no research exists on the physiological impacts of plastic ingestion to larval fish in the ocean. Lab-based studies are limited but reveal plastic ingestion can have adverse effects on fish, including toxicant accumulation (21), gut blockage and perforation (27), malnutrition (28), and decreased predator avoidance (29). Underdeveloped organs may hinder the ability of larval fish to detoxify and eliminate chemical pollutants (30). Therefore, the impacts of plastic ingestion to larval fish are likely more severe than to adult fish.

To assess the ecological relevance of surface slicks as nurseries at the ecosystem scale, we combined our in situ surveys with remote sensing of surface slicks across our ~1000 km^2 study region in West Hawai'i. Slicks occupied 8.3 ± 1.1% (mean ± s.d.) of all nearshore (≤ 6.5 km) ocean surface habitat but contained 42.3 ± 3.6% and 91.8 ± 1.2% of all neustonic larval fish and floating plastics, respectively (Materials and Methods 'Scaling up', Fig. 1 and SI Appendix, Fig. S2). While most larval fish are distributed throughout the upper 100 m (31), slicks clearly provide important nursery habitat for neustonic larval fish from pelagic, mesopelagic, and coral reef habitats at ecosystem-scales. Slicks provide concentrated prey-resources to fish during their most vulnerable life stage. However, slicks also disproportionately accumulate non-nutritious prey-size plastics when nutrition is critical for larval fish survival. Importantly, the opportunity to directly curb larval fish exposure to plastics is tractable. Global investments that target waste management practices and consumer use would reduce the annual input of plastic to the ocean by an estimated 80% (32).

Larval fish are foundational to marine ecosystem functioning and ecosystem service provision. They are key prey for marine and terrestrial higher trophic levels (23, 24) and represent the future cohorts of the adult fish that supply protein and essential nutrients to human societies globally. Surface slicks are a ubiquitous coastal feature (4), suggesting that plastic accumulation in these larval fish nurseries could have far reaching ecological and socioeconomic impacts. Plastic ingestion by larval fish in slicks could represent a focal point for the bioaccumulation of toxins and synthetic material across marine and terrestrial food webs. Plastic ingestion could also reduce larval fish survivorship, compounding threats to fisheries productivity posed by overfishing, climate change, and habitat loss.

Materials and Methods

Study site. Hawai'i Island (19.55°N, 155.66°W) is the southeastern most island of the Hawaiian Archipelago, located in the northern central Pacific (Fig. 1). The western portion, also known as West Hawai'i, has a coastline approximately 315 km long and predominately oriented north to south. Wind and sea conditions are generally calm compared to most other locations in Hawai'i owing to the blocking of the northeast trade winds by two 4000+ m volcanoes, Mauna Kea and Mauna Loa. The bathymetry is steeply sloped, resulting in depths of >1000 m located within 2 km of the shoreline. Our neuston plankton sampling efforts (Materials and Methods 'Neuston tows') were conducted 0–6.5 km from shore (SI Appendix, Table S1 and Fig. S1) in an area totaling approximately 1000 km^2 (Materials and Methods 'Remote sensing', Fig. 1 and SI Appendix, Fig. S2).

Neuston tows. Surface (≤ 1 m) planktonic organisms were sampled by towing a straight-conical ring-net (1 m diameter, 4.5 m length, 335 µm mesh; 300 µm mesh soft cod ends; Sea-Gear) behind a small-boat. Surface tows were conducted using a custom-built tow design sensu (33), which sampled the air-water interface to ~1 m depth. The net was lashed to an aluminum square frame (40 mm diameter) fitted with surface displacement floats to keep the top at the air-water interface. The net was towed using an asymmetrical bridle and paravane (1.27 cm starboard) to ensure the net frame was clear of the towing vessel's wake. A mechanical flowmeter (Sea-Gear) was mounted in the mouth of the net (area = 0.79 m^2), providing the total volume sampled for each tow. Surface slick (N = 53) and ambient water transects (N = 31) were conducted for ~8 min at a speed of ~4 km hr^{-1}. Transect location and length were measured using a hand-held GPS (GPSMAP78; Garmin). Tow length was 445 ± 129 m (mean ± s.d., SI Appendix, Table S1).

In 2017, a total of 16 neuston tows were conducted from the NOAA Ship Oscar Elton Sette using a 1.8 m (6 ft) Isaacs-Kidd (IK) trawl (34) equipped with a winged depressor, 505 µm mesh and mechanical flowmeter (Sea-Gear). The IK was mounted from a J-frame crane along the midship cutout, sampled alongside to mitigate disturbance from the ship, and fished as a neuston net, sampling from slightly above the air-sea interface down to ~1.5 m depth (mouth area = 2.75 m^2). Neuston tows were conducted for ~12 min at a speed of ~6 km hr^{-1}. Transect location and length was measured using a hand-held GPS (GPSMAP78; Garmin). Tow length for IK neuston tows conducted from the ship was 976 ± 365 m (mean ± s.d.; Table S1). NOAA scientists were stationed on the bridge to ensure the ship only sampled within a surface slick or within ambient water for the entirety of the respective transect.

Surface slicks were identified and sampled based on visual assessment. Slicks were determined by locating smooth waters with clearly identifiable edges of rippled water separated by 5 – 200 m in width and extended at least 500 m. Generally, slicks were only visible at wind speeds between 4 – 20 km hr^{-1}. At winds < 4 km hr^{-1} the ocean surface was predominantly smooth while at winds > 20 km hr^{-1} the ocean surface was predominantly rippled. In each case slicks were indiscernible and therefore unable to be sampled. Transects within slicks were conducted using a sinuous tow pattern enabling the center and edges to be sampled. Plankton samples were preserved in 95% ethanol. The plankton net was cleaned between transects. Nearby ambient waters were sampled 604 ± 1203 m (mean ± s.d.) away from each sampled slick. In total, we had N = 63 tows from surface slicks and N = 37 from ambient waters (SI Appendix, Table S1 and

Fig. S1). Our sampling design was to pair each slick sampled with an ambient sample. However, because of inclement weather, changing wind conditions, mechanical failures, and other operational constraints, we were unable to achieve our sampling design for all slicks sampled. We ultimately had 34 samples from surface slicks that were paired with ambient waters. The mean distance from shore was 1421 ± 1400 m (mean ± s.d.) (SI Appendix, Table S1).

Great Pacific Garbage Patch (GPGP) comparison. The median and maximum density of plastics from the GPGP were calculated using plankton trawl data (N = 500) obtained from Lebreton et al. (13). Lebreton et al. (13) neuston trawl data were downloaded from https://doi.org/10.6084/m9.figshare.5873142. Median densities were calculated from the midpoint estimates using a non-parametric bootstrap with 10,000 iterations (Materials and Methods 'Statistical analyses'). Maximum values represented the respective maximum plastic density found in surface slicks and the maximum value of the higher estimate reported by Lebreton et al. (13). To ensure plastic densities from surface slicks and the GPGP were comparable, we constrained data analysis to neuston trawls conducted in the GPGP with a net mesh size of 500 μm. Further, we only included microplastics (i.e., ≤ 5mm in size) in our comparison owing to the methodological approach of plastic size groupings employed by Lebreton et al. (13).

Sample processing. Organisms and plastics were identified under a dissecting microscope and manually sorted into key groups: invertebrate zooplankton, fish larvae, and synthetic debris (plastics). All fish larvae were identified to the lowest taxonomic level possible, measured to total length (nearest mm), and counted for each sample in its entirety. Larval fish identification relied upon the following sources: (35-37). Invertebrate zooplankton samples were size-fractioned into three fractions: 0.3-1.0mm, 1.0-2.0mm, and >2mm, sub-sampled using a Folsom plankton splitter, enumerated and identified into broad taxonomic groups and life stages when possible. All counts (zooplankton, larval fish, plastics) were standardized to the volume of water sampled for each tow and converted to densities (total number m^{-3}) (SI Appendix, Table S1).

Dissections. We dissected a total of 658 larval fish from 8 families, ranging in size from 5 mm to 38 mm (SI Appendix, Table S3). Individual fish total length was measured (to nearest mm) and dissected manually under stereoscopic dissecting microscopes. To minimize the risk of contamination, prior to dissections, larvae and petri dishes were rinsed thoroughly with 70% ethanol and visually checked under the microscope to ensure no synthetic particles were adhered to larvae or dishes. Larval fish stomachs were removed, opened with microscalpels and inspected for synthetic particles using the criteria listed above. Only particles found inside the stomach were considered (e.g., particles in the mouth were excluded). If a suspect synthetic particle was found, the particle and fish were photographed (Leica EZ4W microscope with built-in camera) and the particle was sized using ImageJ (38). To increase statistical power for slick versus ambient plastic ingestion comparisons (Materials and Methods 'Statistical analyses'), larval fish sampled during the 2016–2018 surveys were combined with historical larval fish samples (1997–2011) collected via the same methodological approach (Materials and Methods 'Neuston tows') using an IK trawl aboard the NOAA Ships Townsend Cromwell and Oscar Elton Sette (SI Appendix, Table S3). Historical data were only used for plastic ingestion comparisons. All other data analysis and information presented herein were constrained to the 2016 – 2018 surveys.

Plastic identification. Plastics were manually extracted from neuston samples under dissecting microscopes and identified visually by their color, shape, and texture. We followed Norén (39) and Hidalgo-Ruz et al. (40) for visual identification of synthetic particles and used the following criteria (1) texture should be hard, durable and not easily broken or crushed (2) no cellular or organic structures should be visible; (3) colors should be homogenous; and (4) fibers should have uniform diameter throughout their length. Extracted plastics were dried, weighed, and photographed (Nikon D7000), under standardized lighting conditions. Images were analyzed using ImageJ (40) providing the total count, area (mm^2) and feret diameter (i.e., maximum caliper distance) for each individual plastic particle. To reduce the possibility of counting artifacts in images (false positives), we excluded all detected particles with feret diameter <0.3 mm, which was the size of the mesh cod-end for all neuston plankton tows.

Polymer identification. A randomized subset (707) of particles from surface slicks was used in polymer identification (SI Appendix, Table S2). Each plastic piece was cleaned and analyzed using a PerkinElmer attenuated total reflectance Fourier transform infrared (ATR FT-IR) Spectrometer Spectrum Two according to Jung et al. (41). The ATR FT-IR crystal was cleaned with isopropanol and a background spectrum was run before each sample. Samples were applied to the crystal with a force between 80 and 100 N. Spectra were analyzed manually. A minimum of four matching absorption bands were required for polymer identification (41). A subset of particles and microfibers ingested by larval fish were selected for polymer identification using both Raman microscopy and attenuated total reflectance Fourier transform infrared microscopy (SI Appendix, Table S3). See SI Appendix, Methods for more details on ingested polymer identification.

Water samples. We collected surface water samples at a subset of slick and ambient transects to determine concentrations of chlorophyll-*a* (SI Appendix, Table S1). Samples for chlorophyll-a were collected by hand using a 250 ml dark Nalgene bottle and immediately placed on ice while in the field. Water samples were later filtered onto 25 mm glass microfiber filters (Whatman), placed in 10 ml of 90% acetone and frozen for 24 hr, and then analyzed for chlorophyll-*a* concentration using a Turner Designs model 10AU fluorometer.

Remote sensing. Planet Dove satellite images (https://www.planet.com/) were utilized due to their daily revisit frequency and high spatial resolution (3.7 m). Our mapping approach utilized the contrast between the surface texture of slicks and regular seawater, which is most significant when sun glint is observed in the satellite images (42, 43). A total of 97 cloud-free, sun-glint-saturated Dove reflectance images were selected from Planet to cover the study area. Images were selected in the following time steps in 2018 to assess surface slick spatial distribution and extent: Aug 31; Sep 23; Oct 3; Oct 11 (Fig. 1B and SI Appendix, Fig. S2). See SI Appendix, Methods for further details on the identification of surface slicks from satellite imagery.

Geospatial analysis. Bathymetry data (Fig. 1A and SI Appendix, Fig. S1) were obtained from the University of Hawaiʻi (http://www.soest.hawaii.edu/HMRG/multibeam/bathymetry.php). All geospatial analyses were performed in ArcGIS Desktop 10.6 software (http://desktop.arcgis.com) with the extensions and tools specified below. Geospatial information was derived for the surface slicks identified with Planet Dove satellite imagery (see Materials and Methods 'Remote sensing'). For each time point, the geographic area (m^2) and percent area (%) of slick coverage was calculated in projected coordinate system Universal Transverse Mercator (UTM) zone 5N, World Geodetic System (WGS) 1984. We then produced a raster dataset for each time point that represented the distance to the nearest slick footprint for each pixel by using the Euclidean Distance tool (Spatial Analyst extension) at the native resolution of the Dove imagery. Distance surfaces were clipped to the study area defined by the Dove imagery mosaics (Fig. 1C and SI Appendix, Fig. S2). Summary calculations for distance to nearest slick were derived for the 0–6.5 km from shore, which represented the furthest offshore extent of our neuston plankton sampling efforts (Materials and Methods 'Neuston tows', SI Appendix Table S1 and Fig. S1).

Distance to shore for each neuston transect (SI Appendix, Table S1) was calculated as the shortest distance from the shoreline to the centroid of the GPS track using Near Analysis tools.

Scaling up. To estimate the percentage of larval fish and plastics in surface slicks across our ~1000 km^2 study area, we first multiplied the ocean surface area of slicks and ambient waters for each time point (Materials and Methods 'Remote sensing') by each of the 10,000 bootstrap replicates of median larval fish and plastic densities (Materials and Methods 'Statistical analyses'). We then calculated the median of these 10,000 population estimates for larval fish and plastics in slicks as a percentage of the total study area observed for each time point. All calculations were constrained to the spatial extent of our neuston plankton samples (≤ 6.5 km).

Statistical analyses. Individual neuston tow density values were calculated by dividing the numerical abundance of each group (e.g., larval fish) by the total volume of water sampled for each tow. Non-parametric bootstrap was used in order to explicitly investigate the uncertainty (i.e., 95% Confidence Intervals) associated with median density values in each group. The bootstrap was based on random sampling (with replacement) from the original densities for each group separately. Non-parametric bootstrap was preferred in order to avoid explicit assumptions about the distribution of density values. The Confidence Intervals for median densities were based on 10,000 bootstrap replicates. The same approach was applied to fish size, except with 20,000 bootstrap replicates owing to the large sample size (N = 11,902).

A permutation test was used to calculate the empirical probability that the median density of chlorophyll-*a*, zooplankton, larval fish (including pelagic, coral reef, and mesopelagic), and plastics inside (Md_i; 'slick') is larger than median density outside (Md_o; 'ambient waters') in our study ($P(Md_i > Md_o)$). The empirical probability was calculated by randomly permuting the group labels (inside and outside), each time recalculating the difference between median group densities. $P(Md_i > Md_o)$ was then calculated as the proportion of replicates for which the permuted difference of medians was larger than the difference of group medians in the original data. The same analytical approach was applied to fish size.

Distribution (probability of presence) of plastic in the stomachs of fish was assessed using a Generalized Linear Model (GLM) with a binomial distribution of error and a logit link. The GLM has a binary response ranging between 0 (absence of plastic) and 1 (presence of plastic), and tested for a significant difference (alpha = 0.05) in the presence of plastic within fish dissected from inside (i.e., slick) and outside (i.e., ambient waters) in our study.

Author contributions: J.M.G and J.L.W. conceived the study with M.A.M and J.J.P. J.L.W led data collection and processing with J.M.G. and G.P.A. J.M.G and G.J.W developed and implemented the analyses with J.L, F.C.C., P.N., and J.L.W. J.M.G and G.J.W led the manuscript with J.A.M and J.L.W. All other authors made substantive contributions to data acquisition, Materials and Methods development, and edits to the manuscript.

Competing Interests: The authors declare no competing interests.

Data and materials availability: All data and code used in this manuscript are in the SI Appendix and available from NOAA's Pacific Islands Fisheries Science Center GitHub site (https://github.com/PIFSCstockassessments/fishnurseries).

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Figures

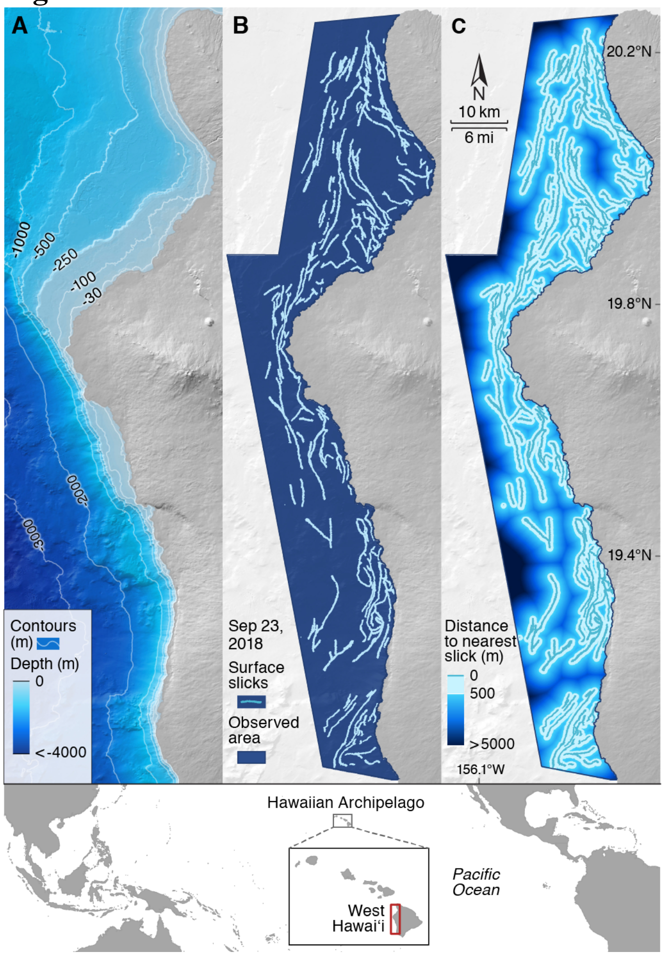

Fig. 1. Seafloor depths and surface slicks along the west coast of Hawai'i Island, the southeastern most island in the Hawaiian Archipelago. A, Seafloor depths. **B**, Remotely sensed observations for 23 September 2018 revealed that surface slicks and ambient waters occupied 8.8% (90 km^2/1025km^2) and 91.2 % (935 km^2/1025 km^2) of all nearshore (≤ 6.5 km) ocean surface area, respectively. **C**, Distance to nearest slick shown in (**B**) with 54.0% (505 km^2/935 km^2) of all nearshore ambient waters within 500 m of a surface slick. The spatial extent of remote sensing detection is the shaded region shown in (**B**, **C**). For additional survey time points, the area of surface slicks and ambient waters as a percentage of the study area and the percent area of ambient waters that are within 500m of a surface slick are as follows: 31 August 2018, 8.8% (88 km^2/998 km^2), 91.2% (910 km^2/998 km^2), and 49.2% (448 km^2/910 km^2); 03 October 2018, 9.1% (94 km^2/1,037 km^2), 90.9% (943 km^2/1,037 km^2), and 47.3% (446 km^2/943 km^2); 11 October 2018, 6.5% (67 km^2/1037 km^2), 93.5% (970 km^2/1037 km^2), and 47.0% (456 km^2/970 km^2) (SI Appendix, Fig. S1).

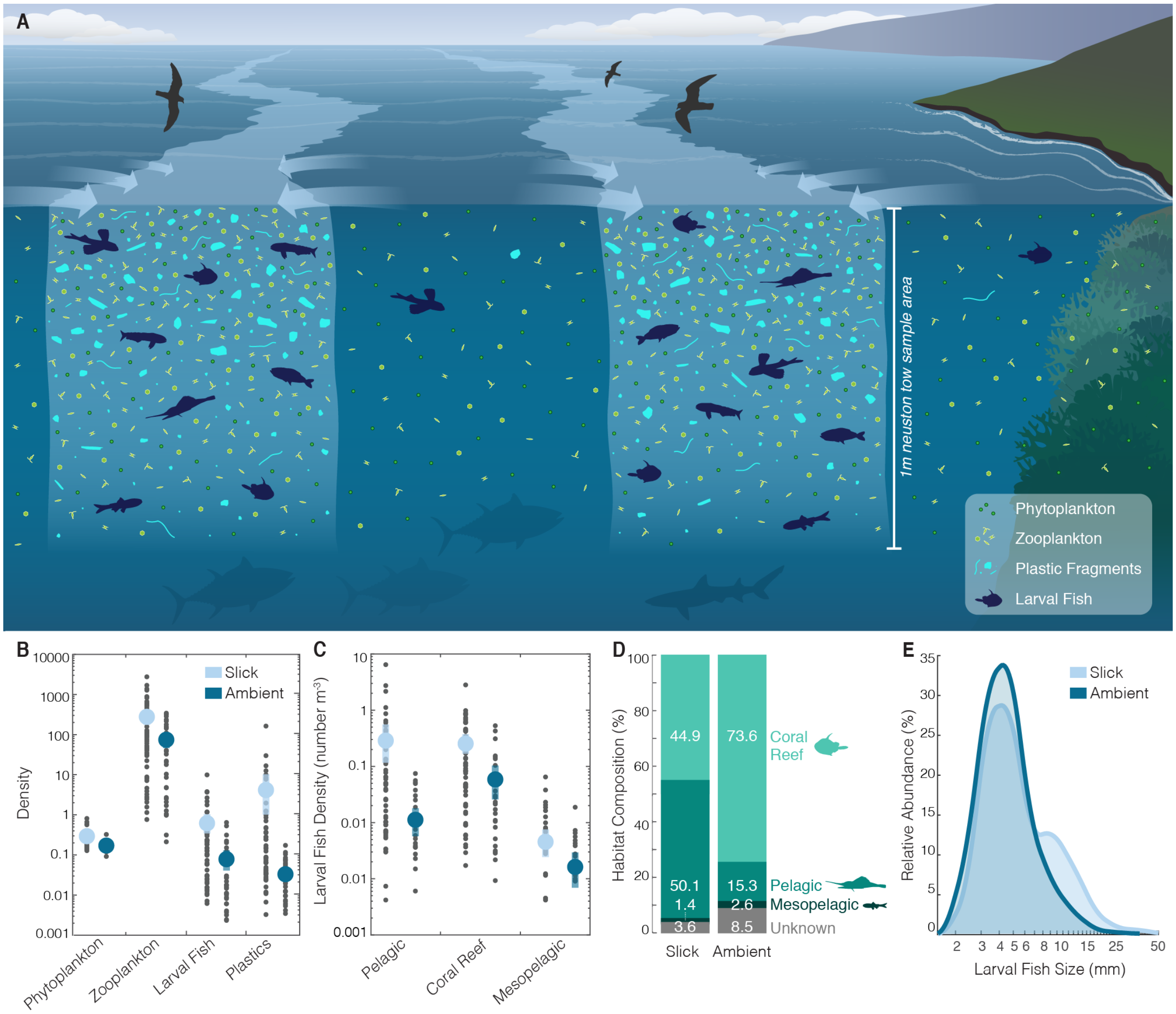

Fig. 2 Accumulation densities, natal habitat composition of larval fish, and larval fish size in surface slicks compared t ambient waters. A, Schematic of study system with indicative slick:ambient ratios for phytoplankton, plastics, zooplankton (i.e., larval fish prey), and larval fish. Note illustrations are not to scale. **B,** Median (upper CI, lower CI) density of phytoplankton (i.e., chlorophyll-*a*, mg m^{-3}), zooplankton (individuals m^{-3}), larval fish (individuals m^{-3}), and plastics (pieces m^{-3}). **C,** Median density (upper CI, lower CI) of larval fish by natal habitat. **D,** Larval fish natal habitat composition, and **E,** Relative abundance (%) of larval fish size (N = 10,870 slick, N = 1,032 ambient). **B, C** Grey dots indicate individual neuston tow samples as follows chlorophyll-*a*: N = 26 slick, N = 9 ambient; zooplankton, larval fish, and plastics: N = 63 slick, N = 37 ambient. Bootstrapped median densities [95% confidence intervals] and the probability that the median density is greater in surface slicks (light blue) compared with ambient waters (dark blue) (*P*(slick)) are: chlorophyll-*a*: 0.29 [0.37,0.23], 0.17 [0.22, 0.14], *P*(slick) = 0.98; zooplankton: 259.91 [382.53,164.98], 69.72 [100.71,43.25], P(slick) = 0.99; larval fish: 0.60 [0.99,0.34], 0.07 [0.12,0.04], *P*(slick) = 1; plastic: 3.92 [9.69,0.95], 0.03 [0.04, 0.02], *P*(slick) = 1; pelagic 0.33 [0.62, 0.14], 0.01 [0.02, 0.006], *P*(slick) = 1; coral reef: 0.25 [0.36, 0.16], 0.05 [0.10, 0.02], *P*(slick) = 1; mesopelagic: 0.005 [0.007, 0.003], 0.002 [0.003, 0.001], *P*(slick) = 0.21.

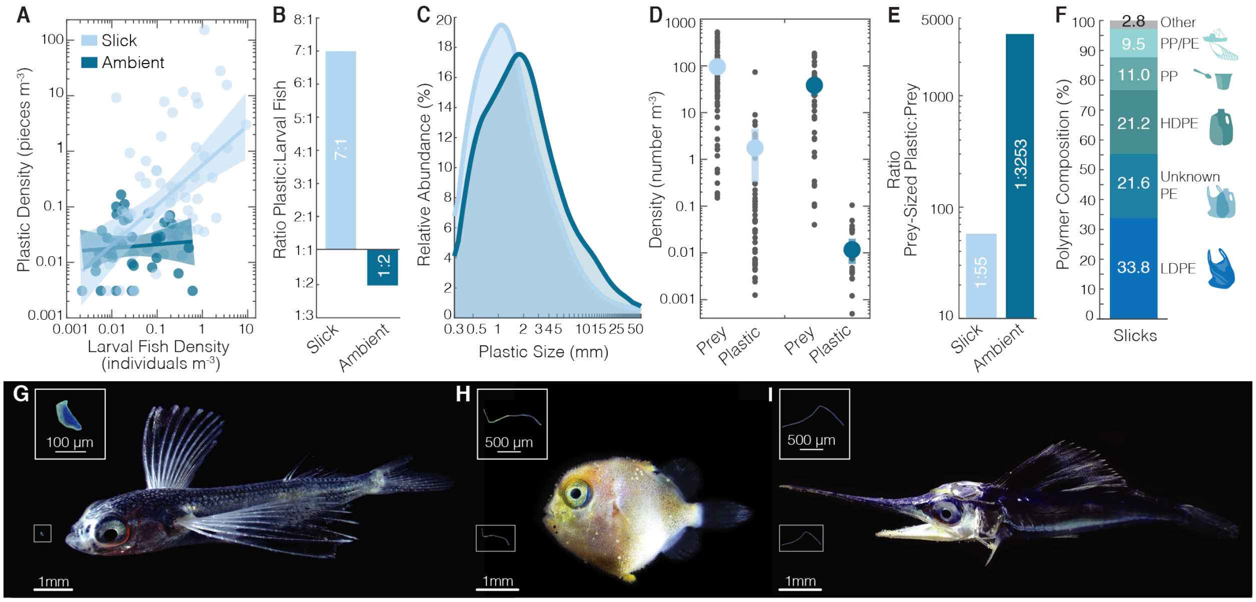

Fig. 3. Associations between larval fish and plastic, including prey-size, in surface slicks compared to ambient waters and examples of larval fish plastic ingestion. **A**, Linear fit (solid line) and 95% confidence intervals (shaded region) of plastic (pieces m^{-3}) and larval fish (individuals m^{-3}) densities (dots) in surface slicks (*N* = 63) and ambient waters (*N* = 37). **B**, Ratio of the median density of plastic to larval fish shown in Fig. 2B. **C**, Relative abundance (%) of plastics by size in surface slicks (*N* = 107,656) and ambient waters (*N* = 480). **D**, Median (upper CI, lower CI) densities of prey-size (≤ 1mm) zooplankton (i.e., prey) and prey-size plastics (*N* = 60 slick, *N* = 33 ambient) (grey dots indicate individual neuston tow values). **E**, Ratio of the median density of prey-size plastic to zooplankton prey shown in (**D). F**, Polymer composition of plastics sampled in surface slicks (*N* = 707 pieces) as follows: LDPE, low-density polyethylene; Unknown PE, unknown polyethylene; HDPE, high-density polyethylene; PP, polypropylene; PP/PE, polypropylene/polyethylene mixture. **G-I**, Flying fish (Exocoetidae; **G**), trigger fish (Balistidae; **H**), and a billfish (Istiophoridae; **I**) collected in surface slicks with example pieces of ingested plastics. D, Neuston plankton tow densities (grey dots) are overlaid with bootstrapped median densities [95% confidence intervals] as follows: surface slicks (light blue): prey-size zooplankton, 95.62 [129.51, 65.72] and prey-size plastic, 1.75 [4.49, 0.33]; ambient waters (dark blue): prey-size zooplankton, 39.52 [58.98, 23.66] and prey-size plastic, 0.012 [0.021, 0.006].

Supporting Information Appendix

Prey-size plastics are invading larval fish nurseries

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Supporting Methods
Supporting Figs. S1 to S2
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Methods

Polymer identification. A subset of particles and microfibers ingested by larval fish were selected for polymer identification using both Raman microscopy (Kaiser Optical Systems, Inc. Raman RXN Systems Raman microprobe with an Invictus 785 nm laser and Leica DMLP microscope) and attenuated total reflectance Fourier transform infrared microscopy (ATR FT-IR; Thermo Fisher Scientific Nicolet iN10 MX with an MCT detector) (SI Appendix, Table S3). Glass and foil supplies were baked at 450°C for 5 hr and samples were handled under a HEPA hood to minimize contamination. Plastic vials containing the sample particles in 70% ethanol were centrifuged at 7,800 rcf for 5 min. Samples plus ethanol rinses were transferred with glass pipets into aluminum Chemplex pellet cups. Cups were covered with foil and dried at 110 °C for ~20 min. Three additional cups received ethanol and were handled identically as the sample cups to serve as laboratory blanks. Under visible light, photographs of particles were taken with 2.5x, 10x, and 50x objectives and compared to original photographs to assure the original fiber was recovered. At the University of Hawaiʻi at Mānoa, under the 50x objective, a Raman spectrum was captured using a 785 nm laser producing approximately 33 μW of power. Multiple spectra were captured on each particle. Raman spectra were background subtracted and fast Fourier transform smoothed before searching through the KnowItAll library (Bio-Rad, Hercules, CA). The fibers were placed between two glass microscope slides wrapped in tape and shipped to Thermo Fisher Scientific where they were scanned using a Nicolet iN10 MX Fourier transform infrared spectroscopy microscope using the microATR accessory and an MCT detector. The spectra were searched through multiple libraries. Matches >70% from the Raman and IR spectra were assessed for a final identification. Cellulose with pigment or chemical additives detected were determined as artificial or anthropogenic in origin.

Disclaimer: Certain commercial equipment, instruments, or materials are identified in this paper to specify adequately the experimental procedure. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology, nor does it imply that the materials or equipment identified are necessarily the best available for the purpose

Remote sensing. We applied an object-based supervised classification approach to identify surface slicks using the eCognition software (http://ecognition.com). An object-based method was selected because it can be tuned to detect the distinct long ribbon shape of the surface slicks (1). First, we used a region-based multiresolution segmentation to partition images into objects (2). Following that step, the blue, green and near-infrared spectral channels were utilized in a nearest neighbor classifier to identify surface slicks, regular seawater, land and other surfaces. Along with the spectral channels, morphological shape (shape index = $\mathrm{Perimeter}/4 * \sqrt{\mathrm{area}}$) and area (number of pixels) indices of the object features were also applied in the classification. After the surface slick extents were derived, a manual clean-up of the data was undertaken to ensure that only surface slicks were included in the data products.

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SI Appendix Figures and Tables

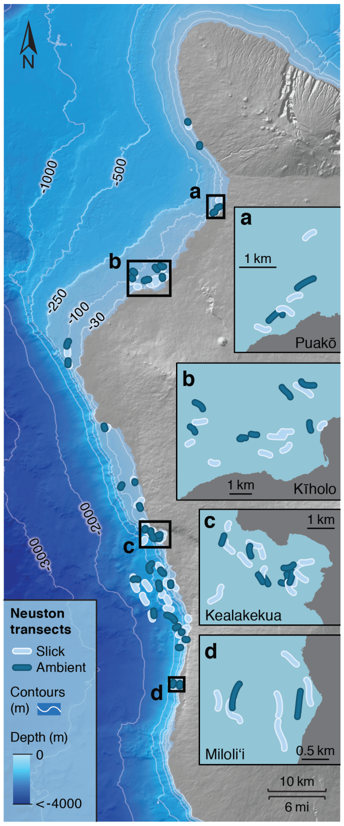

Fig. S1. Location of neuston tows (*n* = 100) collected along the west coast of Hawaiʻi Island.

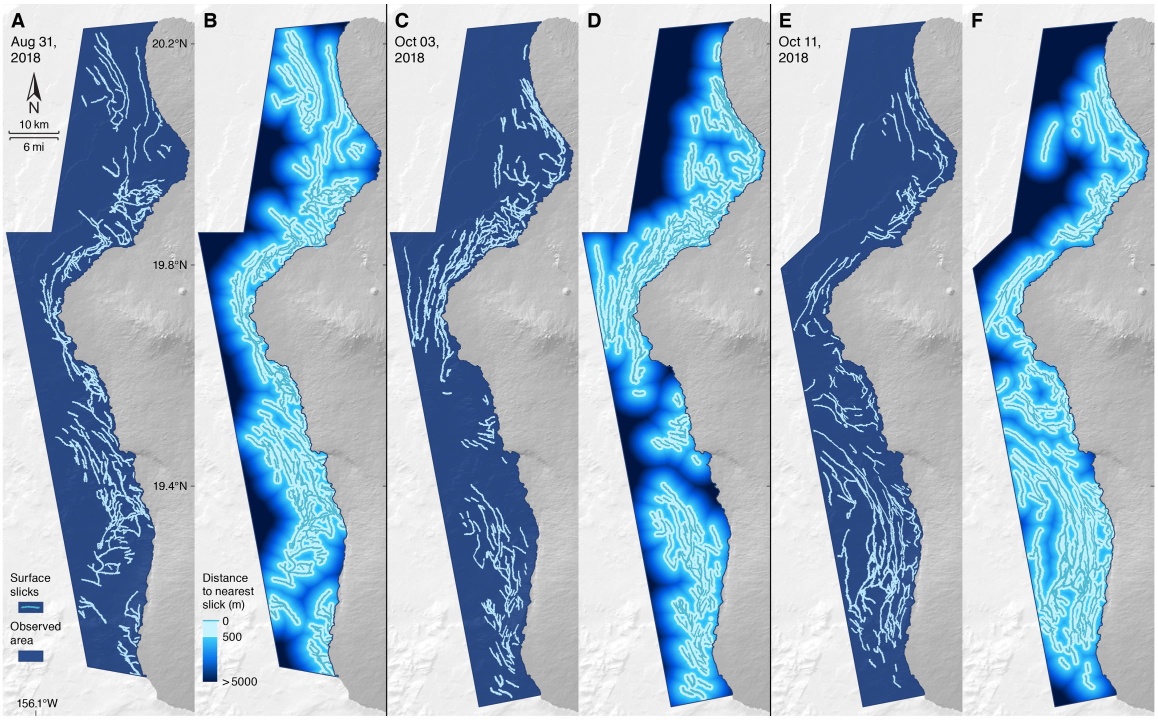

Fig. S2. Remotely sensed surface slicks along the west coast of Hawaiʻi Island. Remotely sensed observations of surface slicks and distance to nearest slick as shown in Fig. 1 but for 31 August 2018 (**A, B**), 03 October 2018 (**C, D**), and 11 October 2018 (**E, F**). The spatial extent of remote sensing detection is shown as shaded regions in each panel. The area of surface slicks and ambient waters as a percentage of the study area and the percent area of ambient waters that are within 500m of a surface slick for each time point are as follows: **A**, 8.8% (88 km^2/998 km^2), 91.2% (910 km^2/998 km^2) and **B,** 49.2% (448 km^2/910 km^2); **C**, 9.1% (94 km^2/1,037 km^2), 90.9% (943 km^2/1,037 km^2), and **D,** 47.3% (446 km^2/943 km^2); **E,** 6.5% (67 km^2/1037 km^2), 93.5% (970 km^2/1037 km^2), and **F**, 47.0% (456 km^2/970 km^2).

Table S1. Densities and geographic information for all neuston tow samples included in the study.

Transect	Tow Location (Inside or Outside Slick)	Year	Longitude (Degrees)	Latitude (Degrees)	Platform	Distance To Shore (m)	Slick Width (m)	Tow Length (m)	Volume Sampled (m3)	Net Mouth Area (m2)	Chlorophyll-a Density (mg m-3)	Zooplankton Density (individuals m-3)	Zooplankton (1mm) Density (individuals m-3)
1	Inside	2016	-155.94781	19.47386	small boat	1068	5-10	493	62.8	0.79	NA	228.025	93.22
2	Outside	2016	-155.94123	19.46769	small boat	1299	NA	475	183.7	0.79	NA	59.641	10.85
4	Outside	2016	-156.01814	19.63887	small boat	800	NA	486	344.4	0.79	NA	75.459	NA
5	Inside	2016	-156.01381	19.63779	small boat	665	1-5	543	375.9	0.79	NA	88.045	59.74
8	Inside	2016	-155.93052	19.47164	small boat	825	20-30	498	278.7	0.79	NA	1289.903	167.38
9	Outside	2016	-155.93417	19.46715	small boat	1056	NA	557	335.8	0.79	NA	61.822	13.79
10	Inside	2016	-155.93289	19.46457	small boat	747	20-30	468	217.2	0.79	NA	148.071	42.44
13	Outside	2016	-155.99205	19.54771	small boat	2701	NA	498	355.3	0.79	0.0919	2.53	NA
14	Inside	2016	-155.97263	19.55593	small boat	625	1-5	496	351.8	0.79	0.265	828.448	324.23
15	Outside	2016	-155.97098	19.55402	small boat	427	NA	488	323.6	0.79	0.1193	319.852	166.55
16	Inside	2016	-155.91289	19.39844	small boat	211	20-30	217	193.9	0.79	0.2485	622.837	114.29
17	Inside	2016	-155.90835	19.39077	small boat	97	10-20	525	193.6	0.79	0.5652	1196.199	524.46
18	Inside	2016	-155.91387	19.39734	small boat	320	5-10	420	332.4	0.79	0.8116	775.451	166.84
19	Inside	2016	-155.92199	19.39797	small boat	1168	10-20	426	309	0.79	NA	199.871	NA
20	Outside	2016	-155.91523	19.39541	small boat	470	NA	481	306	0.79	0.3251	298.392	30.99
21	Inside	2016	-155.96132	19.52480	small boat	463	30-100	372	299.5	0.79	0.3002	31.679	NA
22	Inside	2016	-155.96671	19.51897	small boat	626	20-30	295	275.8	0.79	0.1781	4.333	2.69
23	Outside	2016	-155.96306	19.51525	small boat	334	NA	498	317.7	0.79	0.1926	4.441	2.83
24	Inside	2016	-155.96219	19.51557	small boat	239	10-20	370	217.7	0.79	0.1377	64.272	40.97
26	Inside	2016	-155.89024	19.32586	small boat	151	20-30	448	378	0.79	0.1574	512.17	166.9
27	Inside	2016	-155.89128	19.32706	small boat	323	1-5	454	302.4	0.79	0.588	192.884	146.93
28	Inside	2016	-155.88814	19.34190	small boat	222	30-100	460	325.1	0.79	0.6646	2578.308	409.08
29	Inside	2016	-155.90521	19.33008	small boat	1727	20-30	508	403.8	0.79	0.2174	48.898	33.67
30	Outside	2016	-155.90574	19.32865	small boat	1727	NA	507	213.4	0.79	0.1615	9.695	NA
31	Inside	2016	-155.94217	19.47651	small boat	548	5-10	371	370.4	0.79	0.1801	44.371	22.55
32	Inside	2016	-155.95338	19.48511	small boat	359	1-5	216	153.4	0.79	0.1284	101.786	27.71
33	Inside	2016	-155.94185	19.46967	small boat	1121	5-10	368	350.4	0.79	0.1441	41.61	20.31
34	Inside	2016	-155.93145	19.46760	small boat	885	20-30	426	413.5	0.79	0.323	289.625	0
35	Outside	2016	-155.93241	19.46809	small boat	999	NA	404	393.6	0.79	0.2008	134.64	28.34
36	Inside	2016	-155.92337	19.87219	small boat	116	5-10	308	123.5	0.79	0.3478	1581.085	358.09
37	Inside	2016	-155.94595	19.86081	small boat	748	30-100	416	266.7	0.79	0.2692	552.712	242.76
38	Outside	2016	-155.92817	19.87172	small boat	529	NA	367	356.2	0.79	0.1487	37.602	7.5

39	Inside	2016	-155.84365	19.97732	small boat	575	1-5	306	233.4	0.79	0.1511	46.988	14.03
40	Inside	2016	-155.85133	19.96963	small boat	168	1-5	328	357.3	0.79	0.1677	803.359	319.55
41	Outside	2016	-155.84803	19.97300	small boat	479	NA	534	357.7	0.79	0.1636	82.044	68.66
42	Outside	2016	-155.84107	19.98067	small boat	724	NA	487	328.6	0.79	0.1503	72.83	61.25
43	Inside	2016	-155.84577	19.97418	small boat	395	1-5	406	372.2	0.79	0.1988	543.907	316.86
44	Inside	2016	-155.84009	19.99232	small boat	1158	1-5	283	174.2	0.79	0.2195	481.377	149.35
45	Inside	2016	-155.90414	19.23420	small boat	386	10-20	534	389	0.79	0.2174	118.825	58.16
46	Inside	2016	-155.89954	19.24131	small boat	149	10-20	457	358.3	0.79	0.3126	281.876	112.15
47	Inside	2016	-155.90445	19.23918	small boat	630	20-30	418	343	0.79	0.4058	14.697	10.99
48	Inside	2016	-155.91210	19.23815	small boat	1313	20-30	567	395.9	0.79	0.323	44.777	28.86
49	Inside	2016	-155.91440	19.23987	small boat	1601	20-30	303	391.5	0.79	0.1369	104.033	30.5
50	Inside	2016	-155.90255	19.24671	small boat	200	5-10	303	247.7	0.79	NA	103.342	74.28
51	Outside	2016	-155.90109	19.23928	small boat	307	NA	476	348.6	0.79	NA	35.913	26.82
52	Outside	2016	-155.91172	19.24066	small boat	1326	NA	472	397.4	0.79	NA	145.657	102.79
54	Inside	2017	-155.88829	20.10930	small boat	522	1-5m	844	419.8	0.79	NA	86.115	66.13
55	Outside	2017	-155.88886	20.11284	small boat	386	NA	226	262.4	0.79	NA	37.911	23.14
56	Outside	2017	-155.87044	20.07630	small boat	563	NA	396	193.7	0.79	NA	73.227	52.81
57	Inside	2017	-155.93754	19.86297	small boat	1335	20-30	412	294.7	0.79	NA	47.669	37.12
59	Inside	2017	-155.93882	19.86855	small boat	1582	10-20	411	305.6	0.79	NA	41.558	28.68
60	Inside	2017	-155.93742	19.86965	small boat	1444	1-5m	391	245.5	0.79	NA	567.365	481.37
61	Inside	2017	-155.94217	19.86757	small boat	1564	1-5m	442	342.2	0.79	NA	304.22	200.54
64	Outside	2017	-155.95536	19.86693	small boat	1539	NA	460	275.9	0.79	NA	267.97	34.1
65	Outside	2017	-155.95063	19.86846	small boat	1651	NA	252	233.6	0.79	NA	202.675	121.66
66	Outside	2017	-155.93318	19.47149	small boat	765	NA	383	285	0.79	NA	30.512	7.39
67	Inside	2017	-155.92740	19.47309	small boat	563	20-30	380	289	0.79	NA	313.744	148.37
68	Inside	2017	-155.95339	19.47817	small boat	823	30-100	503	335	0.79	NA	1.941	NA
69	Inside	2017	-155.95760	19.49161	small boat	816	10-20	435	279.2	0.79	NA	28.832	8.02
70	Outside	2017	-155.95503	19.48058	small boat	784	NA	311	258.1	0.79	NA	19.574	17.33
71	Inside	2017	-155.92928	19.46823	small boat	724	1-5m	433	292.5	0.79	NA	425.19	276.35
72	Inside	2017	-155.94471	19.47889	small boat	506	5-10	405	278.4	0.79	NA	80.891	67.53
73	Outside	2017	-155.94619	19.47678	small boat	733	NA	410	313.7	0.79	NA	166.727	153.69
74	Outside	2017	-155.94264	19.46782	small boat	1341	NA	326	208.1	0.79	NA	220.505	184.6
75	Outside	2017	-155.89156	19.30928	small boat	358	NA	381	273.7	0.79	NA	16.771	8.2
76	Inside	2017	-155.89251	19.30922	small boat	450	10-20	503	345.3	0.79	NA	32.928	14.62
77	Inside	2017	-155.90159	19.31640	small boat	1179	20-30	422	299.6	0.79	NA	56.636	52.18

78	Inside	2017	-155.89313	19.32081	small boat	274	20-30	466	331.4	0.79	NA	20.995	16.49
79	Outside	2017	-155.89830	19.32074	small boat	811	NA	355	193.7	0.79	NA	65.081	59.72
80	Inside	2017	-155.89643	19.30395	small boat	760	10-20	438	309.7	0.79	NA	85.509	79.72
81	Outside	2017	-155.90150	19.29692	small boat	1263	NA	389	286.5	0.79	NA	103.822	71.18
84	Outside	2017	-155.91450	19.34409	OscarEltonSette	2764	NA	1617	4004.3	2.75	NA	0.915	0.34
85	Inside	2017	-155.91848	19.35704	OscarEltonSette	2760	30-100	881	2208.9	2.75	NA	3.041	1.19
86	Inside	2017	-155.93298	19.42230	OscarEltonSette	1582	30-100	655	1627.3	2.75	NA	6.697	1.66
87	Outside	2017	-155.92874	19.41446	OscarEltonSette	1595	NA	795	2154.7	2.75	NA	1.186	0.27
88	Inside	2017	-155.91761	19.39365	OscarEltonSette	771	30-100	536	1356.3	2.75	NA	2.324	0.61
89	Inside	2017	-155.91996	19.37078	OscarEltonSette	2278	20-30	938	2388.6	2.75	NA	0.717	0.15
90	Inside	2017	-155.95182	19.39330	OscarEltonSette	4317	30-100	1281	2644.9	2.75	NA	1.073	0.19
91	Outside	2017	-155.96990	19.40332	OscarEltonSette	5991	NA	750	1751	2.75	NA	0.2	0.04
92	Outside	2017	-155.93321	19.39266	OscarEltonSette	2384	NA	1034	2302.7	2.75	NA	1.595	0.29
93	Inside	2017	-155.92844	19.37987	OscarEltonSette	2514	30-100	390	868	2.75	NA	27.986	22.12
95	Outside	2017	-155.94799	19.42202	OscarEltonSette	3088	NA	1431	3310.4	2.75	NA	0.952	0.11
96	Inside	2017	-155.97105	19.40149	OscarEltonSette	6191	30-100	1321	3192.1	2.75	NA	2.606	0.52
97	Inside	2017	-155.97085	19.39244	OscarEltonSette	6320	20-30	1336	3002.8	2.75	NA	7.636	1.62
98	Inside	2017	-155.95659	19.37234	OscarEltonSette	5496	20-30	1423	2693.7	2.75	NA	3.642	0.17
99	Inside	2017	-155.94488	19.34571	OscarEltonSette	5790	10-20	1003	2626.7	2.75	NA	1.468	0.31
100	Outside	2017	-155.94134	19.35025	OscarEltonSette	5231	NA	805	1689.2	2.75	NA	0.295	0.1
107	Inside	2018	-155.95690	19.46228	small boat	2551	NA	751	580.7	0.79	NA	84.553	41.839
118	Inside	2018	-155.97631	19.86506	small boat	1849	NA	248	247.2	0.79	NA	39.062	23.79
119	Outside	2018	-155.97509	19.87060	small boat	2369	NA	336	267.8	0.79	NA	2.367	1.14
121	Outside	2018	-155.93761	19.88552	small boat	2192	NA	575	238.4	0.79	NA	20.604	14.54
122	Inside	2018	-155.96662	19.85703	small boat	642	NA	311	303.6	0.79	NA	71.64	50.25
125	Inside	2018	-155.97229	19.87356	small boat	2567	NA	447	358	0.79	NA	37.911	1.97
126	Outside	2018	-155.97246	19.88024	small boat	3284	NA	475	363.6	0.79	NA	4.497	3.74
135	Inside	2018	-156.07293	19.73595	small boat	1416	5-10	363	203.4	0.79	NA	92.025	29.06
136	Outside	2018	-156.07465	19.73926	small boat	1760	NA	677	362.1	0.79	NA	1.967	1.41
139	Inside	2018	-155.93068	19.88635	small boat	1768	20-30	800	435.9	0.79	NA	114.341	44.32
140	Outside	2018	-155.92921	19.88850	small boat	1786	NA	604	496.9	0.79	NA	8.048	2.68
145	Inside	2018	-156.07572	19.75598	small boat	2396	5-10	791	346.6	0.79	NA	8.243	4.62
146	Outside	2018	-156.07563	19.76883	small boat	2700	NA	868	339.5	0.79	NA	0.978	NA

Transect	Total Larval Fish Density (individuals m-3)	Pelagic Larval Fish Density (individuals m-3)	Mesopelagic Larval Fish Density (individuals m-3)	Coral Reef Larval Fish Density (individuals m-3)	Unknown Larval Fish Density (individuals m-3)	Plastic Count (pieces)	Plastic Weight (mg)	Plastic Density (pieces m-3)	Microplastic (<= 5 mm) Density (pieces m-3)	Microplastic (<= 1 mm) Density (pieces m-3)
1	0.42994	0.00000	0.00000	0.42994	0.00000	9	2	0.14331	0.14331	0.09554
2	0.01633	0.00000	0.00000	0.01633	0.00000	10	0.1	0.05444	0.05444	0.02722
4	0.20906	0.05226	0.00000	0.12195	0.03484	16	62	0.04646	0.04355	0.00000
5	1.10136	0.45491	0.01862	0.52408	0.10375	303	905	0.80607	0.72892	0.22080
8	0.10047	0.00718	0.00359	0.07894	0.01076	11	2	0.03947	0.02870	0.00718
9	0.09529	0.00000	0.00000	0.08041	0.01489	3	5	0.00893	0.00298	0.00000
10	0.31308	0.08748	0.00000	0.18877	0.03683	10	0.1	0.04604	0.04604	0.00460
13	0.02815	0.00000	0.00000	0.02815	0.00000	2	0.1	0.00563	0.00000	0.00000
14	0.17339	0.05117	0.00284	0.11086	0.00853	11	0.1	0.03127	0.02558	0.00284
15	0.14215	0.04944	0.00000	0.07417	0.01854	16	0.1	0.04944	0.04944	0.03090
16	0.80454	0.24755	0.02063	0.45384	0.08252	7	2	0.03610	0.03610	0.00000
17	0.21694	0.01033	0.00517	0.19628	0.00517	31	24	0.16012	0.12913	0.01033
18	2.02467	1.19735	0.00301	0.82431	0.00000	20	30	0.06017	0.04212	0.00602
19	1.08738	0.07767	0.00324	0.94498	0.06149	10	4	0.03236	0.02265	0.00324
20	0.29412	0.00000	0.00654	0.26144	0.02614	1	0.1	0.00327	0.00000	0.00000
21	0.19699	0.00334	0.00000	0.17362	0.02003	35	26	0.11686	0.10351	0.03339
22	0.13778	0.08339	0.00000	0.05076	0.00363	3	2	0.01088	0.01088	0.00000
23	0.02833	0.02518	0.00000	0.00315	0.00000	0	0	0.00000	0.00000	0.00000
24	0.22049	0.08268	0.00000	0.13780	0.00000	5	0.1	0.02297	0.01837	0.00000
26	0.06878	0.00265	0.00265	0.06085	0.00265	30	9	0.07937	0.07143	0.02116
27	0.30423	0.00661	0.00000	0.29762	0.00000	10	20	0.03307	0.01984	0.00000
28	0.07998	0.00615	0.00000	0.04306	0.03076	1	3	0.00308	0.00308	0.00000
29	0.54235	0.04705	0.00743	0.43091	0.05696	14	0.1	0.03467	0.03467	0.00743
30	0.60450	0.01874	0.01874	0.52015	0.04686	0	0	0.00000	0.00000	0.00000
31	0.78294	0.13499	0.00000	0.57235	0.07559	50	20	0.13499	0.11609	0.04860
32	0.22164	0.13690	0.00000	0.08475	0.00000	6	49	0.03911	0.01956	0.00000
33	0.43379	0.09989	0.00000	0.33390	0.00000	15	109	0.04281	0.02283	0.00000
34	0.28053	0.05079	0.00000	0.22491	0.00484	11	0.1	0.02660	0.01935	0.00242
35	0.49797	0.06606	0.00000	0.41413	0.01778	6	3	0.01524	0.01016	0.00000
36	9.29555	6.51012	0.05668	2.71255	0.01619	371	1141	3.00405	2.63158	0.29960
37	3.55081	2.83090	0.00750	0.70491	0.00750	305	1129	1.14361	1.01237	0.10874
38	0.06176	0.00000	0.00561	0.05615	0.00000	26	2	0.07299	0.06176	0.03088

39	0.60411	0.56555	0.00000	0.03428	0.00428	14	5503	0.05998	0.04284	0.00000
40	0.32186	0.00560	0.00000	0.28268	0.03359	82	760	0.22950	0.20151	0.01679
41	0.19010	0.00000	0.00000	0.17613	0.01398	24	13	0.06710	0.04473	0.00280
42	0.09434	0.05782	0.00000	0.02130	0.01522	8	0.1	0.02435	0.02130	0.00913
43	0.47824	0.37346	0.00000	0.09941	0.00537	31	53	0.08329	0.06717	0.00537
44	1.65901	0.89552	0.00000	0.68312	0.08037	58	360	0.33295	0.28703	0.04592
45	0.01285	0.00000	0.00000	0.01285	0.00000	0	0	0.00000	0.00000	0.00000
46	0.02791	0.00000	0.00000	0.02791	0.00000	4	0.1	0.01116	0.01116	0.00558
47	0.00583	0.00000	0.00000	0.00583	0.00000	0	0	0.00000	0.00000	0.00000
48	0.17176	0.02526	0.00505	0.12124	0.02021	25	0.1	0.06315	0.05557	0.03031
49	0.35249	0.02554	0.00000	0.32695	0.00000	4	4	0.01022	0.00255	0.00000
50	0.02826	0.02422	0.00000	0.00404	0.00000	0	0	0.00000	0.00000	0.00000
51	0.00574	0.00000	0.00000	0.00000	0.00574	4	0.1	0.01147	0.01147	0.00000
52	0.07549	0.00755	0.00252	0.05284	0.01258	2	0.1	0.00503	0.00252	0.00000
54	0.09528	0.05002	0.00000	0.04288	0.00238	190	97	0.45260	0.41210	0.12625
55	0.00381	0.00000	0.00000	0.00381	0.00000	9	11	0.03430	0.02287	0.00762
56	0.01033	0.00516	0.00000	0.00000	0.00516	19	19	0.09809	0.09293	0.03098
57	0.68205	0.01018	0.00679	0.63794	0.02715	101	352	0.34272	0.27146	0.05090
59	0.09490	0.00654	0.00000	0.08181	0.00654	133	82	0.43521	0.36322	0.08181
60	1.10794	0.35438	0.01629	0.67210	0.06517	37868	165560	154.24847	142.44807	73.40530
61	0.72472	0.19579	0.03799	0.42081	0.07013	400	358	1.16891	0.86207	0.14611
64	0.02537	0.00362	0.00725	0.01450	0.00000	0	0	0.00000	0.00000	0.00000
65	0.02568	0.00428	0.00428	0.01712	0.00000	6	0.1	0.02568	0.01712	0.00428
66	0.01053	0.00000	0.00000	0.01053	0.00000	20	0.1	0.07018	0.07018	0.04912
67	0.11765	0.03806	0.00000	0.07612	0.00346	76	529	0.26298	0.18685	0.03114
68	0.01194	0.00299	0.00000	0.00597	0.00299	11	2	0.03284	0.03284	0.01194
69	0.03940	0.00716	0.00000	0.03223	0.00000	97	130	0.34742	0.33309	0.06447
70	0.00775	0.00387	0.00387	0.00000	0.00000	3	0.1	0.01162	0.00775	0.00387
71	0.20513	0.01026	0.00000	0.18803	0.00684	67	361	0.22906	0.19487	0.02735
72	0.00000	0.00000	0.00000	0.00000	0.00000	0	0	0.00000	0.00000	0.00000
73	0.00000	0.00000	0.00000	0.00000	0.00000	0	0	0.00000	0.00000	0.00000
74	0.00961	0.00000	0.00481	0.00000	0.00481	4	0.1	0.01922	0.01922	0.00481
75	0.01461	0.00365	0.00000	0.01096	0.00000	5	0.1	0.01827	0.01461	0.00365
76	0.01448	0.00000	0.00000	0.01448	0.00000	28	43	0.08109	0.06371	0.00579
77	0.02003	0.02003	0.00000	0.00000	0.00000	23	35	0.07677	0.06008	0.00668

78	0.02414	0.00604	0.00000	0.00604	0.01207	23	65	0.06940	0.06639	0.00604
79	0.01033	0.00000	0.00000	0.00000	0.01033	0	0	0.00000	0.00000	0.00000
80	0.02906	0.01292	0.00323	0.00969	0.00323	0	0	0.00000	0.00000	0.00000
81	0.00349	0.00000	0.00000	0.00000	0.00349	0	0	0.00000	0.00000	0.00000
84	0.02572	0.00150	0.00100	0.02323	0.00000	26	21	0.00649	0.00549	0.00050
85	0.05523	0.00905	0.00045	0.04391	0.00181	581	574	0.26303	0.22092	0.12585
86	0.01475	0.00922	0.00123	0.00369	0.00061	40	49	0.02458	0.02274	0.00430
87	0.00232	0.00000	0.00093	0.00093	0.00046	15	9	0.00696	0.00418	0.00000
88	0.00958	0.00074	0.00295	0.00516	0.00074	30	6	0.02212	0.02064	0.01180
89	0.00670	0.00042	0.00042	0.00544	0.00042	15	17	0.00628	0.00502	0.00293
90	0.02269	0.00340	0.00000	0.01928	0.00000	2459	13480	0.92971	0.82839	0.31079
91	0.00571	0.00228	0.00114	0.00228	0.00000	43	75	0.02456	0.01942	0.00286
92	0.00217	0.00000	0.00000	0.00217	0.00000	9	0.1	0.00391	0.00304	0.00000
93	0.05876	0.01613	0.00115	0.03917	0.00230	13	18	0.01498	0.01267	0.00000
95	0.00816	0.00091	0.00091	0.00483	0.00151	30	110	0.00906	0.00755	0.00121
96	0.01848	0.00533	0.00407	0.00877	0.00031	98	674	0.03070	0.02600	0.00125
97	0.24910	0.11090	0.01232	0.11223	0.01365	14836	59057	4.94072	4.42920	1.64946
98	0.14144	0.05123	0.00780	0.08056	0.00186	21048	143658	7.81379	7.15187	3.48851
99	0.05482	0.02627	0.00495	0.02132	0.00228	1740	1920	0.66243	0.61750	0.18045
100	0.00296	0.00000	0.00000	0.00296	0.00000	20	10	0.01184	NA	NA
107	0.31169	0.18770	0.00172	0.10849	0.01378	5354	5469	9.21991	7.26709	3.11693
118	2.53236	2.13188	0.00809	0.33576	0.05663	6915	261228	27.97330	20.22654	8.97249
119	0.10082	0.07468	0.00373	0.01867	0.00373	6	11	0.02240	0.01494	0.00747
121	0.01678	0.01258	0.00000	0.00000	0.00419	26	25	0.10906	0.08809	0.03775
122	0.72793	0.42161	0.02635	0.24374	0.03623	2846	9319	9.37418	7.77668	2.34190
125	0.39385	0.22905	0.00559	0.15642	0.00279	4209	10112	11.75698	10.76536	6.40223
126	0.01650	0.00550	0.00000	0.00550	0.00550	29	11	0.07976	0.06876	0.03300
135	3.99213	2.96460	0.00492	0.97837	0.04425	3182	14122	15.64405	13.90364	5.39823
136	0.01381	0.01105	0.00276	0.00000	0.00000	59	37	0.16294	0.15465	0.10494
139	0.80064	0.60335	0.00459	0.15370	0.03900	3147	24861	7.21955	6.02432	2.72081
140	0.11672	0.03019	0.00000	0.08251	0.00402	13	22	0.02616	0.01006	0.00402
145	0.12118	0.03751	0.00000	0.04905	0.03462	640	15472	1.84651	1.69359	1.06463
146	0.02062	0.00589	0.00000	0.00000	0.01473	20	0.1	0.05891	NA	NA

Table S2. Plastic polymer identification of the randomized subset of plastic pieces from surface slicks.

Sample	Size	Shape	Color	Mass (mg)	Polymer
1	macroplastic (>25mm)	line	white	2.53	Unkown Polyethylene
2	microplastic (<5mm)	fragment	blue	19.9	Unkown Polyethylene
3	microplastic (<5mm)	fragment	white	0.66	Unkown Polyethylene
4	microplastic (<5mm)	fragment	white	11.26	Unkown Polyethylene
5	microplastic (<5mm)	fragment	blue	0.28	Unkown Polyethylene
6	microplastic (<5mm)	fragment	white	0.21	Unkown Polyethylene
7	microplastic (<5mm)	fragment	white	1.2	Unkown Polyethylene
8	microplastic (<5mm)	fragment	white	0.91	Unkown Polyethylene
9	microplastic (<5mm)	fragment	white	0.25	Unkown Polyethylene
10	mesoplastic (5-25mm)	line	blue	1.69	Unkown Polyethylene
11	microplastic (<5mm)	fragment	beige	0.3	Unkown Polyethylene
12	microplastic (<5mm)	fragment	white	<0.01	Unkown Polyethylene
13	microplastic (<5mm)	line	green	0.08	Unkown Polyethylene
14	microplastic (<5mm)	fragment	white	5.41	Unkown Polyethylene
15	microplastic (<5mm)	fragment	white	4	Unkown Polyethylene
16	microplastic (<5mm)	fragment	white	7.92	Unkown Polyethylene
17	microplastic (<5mm)	fragment	white	3.63	Unkown Polyethylene
18	microplastic (<5mm)	fragment	white	0.93	Unkown Polyethylene
19	microplastic (<5mm)	fragment	white	1.43	Unkown Polyethylene
20	microplastic (<5mm)	fragment	white	2.11	Unkown Polyethylene
21	microplastic (<5mm)	fragment	white	1.05	Unkown Polyethylene
22	microplastic (<5mm)	fragment	white	1.41	Unkown Polyethylene
23	microplastic (<5mm)	fragment	beige	6.06	Unkown Polyethylene
24	microplastic (<5mm)	fragment	beige	2.51	Unkown Polyethylene
25	microplastic (<5mm)	fragment	white	7.71	Unkown Polyethylene
26	microplastic (<5mm)	fragment	white	0.44	Unkown Polyethylene
27	microplastic (<5mm)	fragment	white	1.95	Unkown Polyethylene
28	microplastic (<5mm)	fragment	white	0.15	Unkown Polyethylene
29	microplastic (<5mm)	fragment	blue	0.01	Unkown Polyethylene
30	microplastic (<5mm)	fragment	white	0.2	Unkown Polyethylene
31	microplastic (<5mm)	fragment	white	0.18	Unkown Polyethylene
32	microplastic (<5mm)	fragment	white	0.21	Unkown Polyethylene
33	microplastic (<5mm)	line	blue	0.06	Unkown Polyethylene
34	microplastic (<5mm)	fragment	white	0.02	Unkown Polyethylene
35	microplastic (<5mm)	fragment	white	0.17	Unkown Polyethylene
36	microplastic (<5mm)	fragment	white	<0.01	Unkown Polyethylene
37	mesoplastic (5-25mm)	fragment	beige	41.44	Unkown Polyethylene
38	mesoplastic (5-25mm)	fragment	blue	102.36	Unkown Polyethylene
39	mesoplastic (5-25mm)	line	white	0.81	Unkown Polyethylene
40	microplastic (<5mm)	fragment	blue	0.96	Unkown Polyethylene
41	mesoplastic (5-25mm)	line	white	1.32	Unkown Polyethylene
42	mesoplastic (5-25mm)	line	gray	0.45	Unkown Polyethylene
43	microplastic (<5mm)	line	gray	0.26	Unkown Polyethylene
44	microplastic (<5mm)	line	blue	0.53	Unkown Polyethylene
45	microplastic (<5mm)	line	gray	0.08	Unkown Polyethylene
46	microplastic (<5mm)	line	blue	0.31	Unkown Polyethylene
47	mesoplastic (5-25mm)	line	grey	0.27	Unkown Polyethylene
48	microplastic (<5mm)	fragment	blue	0.23	Unkown Polyethylene
49	microplastic (<5mm)	fragment	blue	0.2	Unkown Polyethylene
50	microplastic (<5mm)	fragment	blue	0.21	Unkown Polyethylene
51	microplastic (<5mm)	fragment	blue	0.15	Unkown Polyethylene
52	microplastic (<5mm)	fragment	beige	0.23	Unkown Polyethylene
53	microplastic (<5mm)	fragment	white	0.45	Unkown Polyethylene
54	microplastic (<5mm)	fragment	white	0.26	Unkown Polyethylene
55	microplastic (<5mm)	line	white	0.26	Unkown Polyethylene
56	microplastic (<5mm)	fragment	white	0.48	Unkown Polyethylene
57	microplastic (<5mm)	fragment	white	0.16	Unkown Polyethylene
58	microplastic (<5mm)	fragment	beige	0.59	Unkown Polyethylene
59	microplastic (<5mm)	fragment	green	<0.01	Unkown Polyethylene
60	microplastic (<5mm)	fragment	blue	0.18	Unkown Polyethylene
61	microplastic (<5mm)	fragment	white	0.18	Unkown Polyethylene
62	microplastic (<5mm)	line	blue	0.2	Unkown Polyethylene
63	microplastic (<5mm)	line	gray	0.13	Unkown Polyethylene
64	microplastic (<5mm)	fragment	blue	<0.01	Unkown Polyethylene

65	microplastic (<5mm)	fragment	white	0.38	Unkown Polyethylene
66	microplastic (<5mm)	fragment	white	1.04	Unkown Polyethylene
67	microplastic (<5mm)	fragment	white	6.46	Unkown Polyethylene
68	mesoplastic (5-25mm)	line	silver	0.78	Unkown Polyethylene
69	macroplastic (>25mm)	whole	gray	5522.85	Unkown Polyethylene
70	macroplastic (>25mm)	sheet	colorless	318.27	Unkown Polyethylene
71	macroplastic (>25mm)	line	white	468.2	Unkown Polyethylene
72	mesoplastic (5-25mm)	fragment	white	16.41	Unkown Polyethylene
73	mesoplastic (5-25mm)	fragment	green	7.33	Unkown Polyethylene
74	mesoplastic (5-25mm)	fragment	white	3.85	Unkown Polyethylene
75	microplastic (<5mm)	nurdle	black	30.47	Unkown Polyethylene
76	microplastic (<5mm)	fragment	blue	9.17	Unkown Polyethylene
77	microplastic (<5mm)	fragment	blue	20.97	Unkown Polyethylene
78	microplastic (<5mm)	fragment	white	27.27	Unkown Polyethylene
79	microplastic (<5mm)	fragment	blue	8.3	Unkown Polyethylene
80	microplastic (<5mm)	fragment	white	11.31	Unkown Polyethylene
81	microplastic (<5mm)	fragment	white	11.79	Unkown Polyethylene
82	microplastic (<5mm)	fragment	green	15.15	Unkown Polyethylene
83	microplastic (<5mm)	nurdle	white	32.72	Unkown Polyethylene
84	mesoplastic (5-25mm)	fragment	white	75.21	Unkown Polyethylene
85	microplastic (<5mm)	fragment	white	23.2	Unkown Polyethylene
86	mesoplastic (5-25mm)	fragment	white	88.01	Unkown Polyethylene
87	macroplastic (>25mm)	line	gray	3.07	Unkown Polyethylene
88	macroplastic (>25mm)	line	yellow	5.98	Unkown Polyethylene
89	microplastic (<5mm)	fragment	white	8.38	Unkown Polyethylene
90	microplastic (<5mm)	fragment	white	14.04	Unkown Polyethylene
91	mesoplastic (5-25mm)	fragment	white	49.4	Unkown Polyethylene
92	microplastic (<5mm)	fragment	white	16.28	Unkown Polyethylene
93	microplastic (<5mm)	fragment	blue	38.25	Unkown Polyethylene
94	mesoplastic (5-25mm)	fragment	black	5.31	Unkown Polyethylene
95	mesoplastic (5-25mm)	fragment	white	18.92	Unkown Polyethylene
96	microplastic (<5mm)	fragment	white	15.77	Unkown Polyethylene
97	microplastic (<5mm)	fragment	white	12.2	Unkown Polyethylene
98	microplastic (<5mm)	fragment	white	7.27	Unkown Polyethylene
99	mesoplastic (5-25mm)	fragment	white	23.86	Unkown Polyethylene
100	mesoplastic (5-25mm)	fragment	blue	24.32	Unkown Polyethylene
101	mesoplastic (5-25mm)	line	blue	3.02	Unkown Polyethylene
102	mesoplastic (5-25mm)	fragment	blue	23.97	Unkown Polyethylene
103	microplastic (<5mm)	fragment	white	8.21	Unkown Polyethylene
104	mesoplastic (5-25mm)	fragment	black	13.52	Unkown Polyethylene
105	microplastic (<5mm)	fragment	white	17.75	Unkown Polyethylene
106	microplastic (<5mm)	fragment	green	3.14	Unkown Polyethylene
107	microplastic (<5mm)	fragment	blue	4.63	Unkown Polyethylene
108	microplastic (<5mm)	fragment	blue	3.86	Unkown Polyethylene
109	microplastic (<5mm)	fragment	yellow	5.4	Unkown Polyethylene
110	microplastic (<5mm)	fragment	white	8.32	Unkown Polyethylene
111	microplastic (<5mm)	fragment	blue	18	Unkown Polyethylene
112	microplastic (<5mm)	fragment	green	11.24	Unkown Polyethylene
113	microplastic (<5mm)	fragment	beige	11.66	Unkown Polyethylene
114	microplastic (<5mm)	fragment	gray	7.89	Unkown Polyethylene
115	microplastic (<5mm)	fragment	white	4.61	Unkown Polyethylene
116	microplastic (<5mm)	fragment	white	4.06	Unkown Polyethylene
117	microplastic (<5mm)	fragment	white	16.16	Unkown Polyethylene
118	mesoplastic (5-25mm)	fragment	white	9.85	Unkown Polyethylene
119	microplastic (<5mm)	fragment	white	14.69	Unkown Polyethylene
120	microplastic (<5mm)	fragment	green	3.8	Unkown Polyethylene
121	mesoplastic (5-25mm)	fragment	white	6.35	Unkown Polyethylene
122	microplastic (<5mm)	fragment	white	9.44	Unkown Polyethylene
123	microplastic (<5mm)	fragment	beige	10.12	Unkown Polyethylene
124	microplastic (<5mm)	fragment	white	8.98	Unkown Polyethylene
125	mesoplastic (5-25mm)	line	black	2.47	Unkown Polyethylene
126	microplastic (<5mm)	fragment	green	3.91	Unkown Polyethylene
127	microplastic (<5mm)	fragment	white	5.98	Unkown Polyethylene
128	microplastic (<5mm)	fragment	white	7.91	Unkown Polyethylene
129	microplastic (<5mm)	fragment	green	0.64	Unkown Polyethylene

130	microplastic (<5mm)	fragment	beige	2.3	Unkown Polyethylene
131	microplastic (<5mm)	fragment	beige	1.32	Unkown Polyethylene
132	microplastic (<5mm)	fragment	gray	1.55	Unkown Polyethylene
133	microplastic (<5mm)	fragment	beige	0.41	Unkown Polyethylene
134	microplastic (<5mm)	fragment	white	8.54	Unkown Polyethylene
135	microplastic (<5mm)	fragment	white	8.06	Unkown Polyethylene
136	microplastic (<5mm)	fragment	white	3.33	Unkown Polyethylene
137	microplastic (<5mm)	fragment	white	1.31	Unkown Polyethylene
138	microplastic (<5mm)	fragment	white	4.54	Unkown Polyethylene
139	microplastic (<5mm)	fragment	white	5.36	Unkown Polyethylene
140	mesoplastic (5-25mm)	line	gray	0.58	Unkown Polyethylene
141	mesoplastic (5-25mm)	line	blue	0.46	Unkown Polyethylene
142	microplastic (<5mm)	fragment	white	5.72	Unkown Polyethylene
143	microplastic (<5mm)	fragment	white	6.6	Unkown Polyethylene
144	microplastic (<5mm)	fragment	green	2.4	Unkown Polyethylene
145	microplastic (<5mm)	fragment	blue	3.35	Unkown Polyethylene
146	microplastic (<5mm)	fragment	white	3.75	Unkown Polyethylene
147	microplastic (<5mm)	fragment	white	2.46	Unkown Polyethylene
148	microplastic (<5mm)	fragment	white	2.52	Unkown Polyethylene
149	microplastic (<5mm)	fragment	white	4.82	Unkown Polyethylene
150	microplastic (<5mm)	fragment	white	4.16	Unkown Polyethylene
151	microplastic (<5mm)	fragment	white	1.11	Unkown Polyethylene
152	microplastic (<5mm)	fragment	white	<0.01	Unkown Polyethylene
153	microplastic (<5mm)	fragment	white	<0.01	Unkown Polyethylene
154	microplastic (<5mm)	fragment	brown	0.94	Unknown
155	microplastic (<5mm)	fragment	beige	0.06	Unknown
156	microplastic (<5mm)	fragment	black	<0.01	Unknown
157	microplastic (<5mm)	paint chip	red	<0.01	Unknown
158	microplastic (<5mm)	paint chip	red	<0.01	Unknown
159	microplastic (<5mm)	paint chip	red	<0.01	Unknown
160	microplastic (<5mm)	fragment	blue	3.56	Unknown
161	microplastic (<5mm)	fragment	beige	<0.01	Unknown
162	microplastic (<5mm)	fragment	white	<0.01	Unknown
163	microplastic (<5mm)	fragment	beige	0.71	Unknown
164	microplastic (<5mm)	fragment	white	0.98	Unknown
165	microplastic (<5mm)	fragment	beige	0.36	Unknown
166	microplastic (<5mm)	fragment	white	0.89	Unknown
167	microplastic (<5mm)	fragment	blue	1.05	Unknown
168	microplastic (<5mm)	fragment	black	31.92	Polystyrene
169	microplastic (<5mm)	fragment	blue	0.91	Polypropylene/Polyethylene
170	microplastic (<5mm)	fragment	blue	<0.01	Polypropylene/Polyethylene
171	microplastic (<5mm)	fragment	blue	10.14	Polypropylene/Polyethylene
172	macroplastic (>25mm)	line	black	2.44	Polypropylene/Polyethylene
173	microplastic (<5mm)	fragment	beige	0.12	Polypropylene/Polyethylene
174	macroplastic (>25mm)	line	white	8.61	Polypropylene/Polyethylene
175	macroplastic (>25mm)	line	white	4.93	Polypropylene/Polyethylene
176	mesoplastic (5-25mm)	line	white	1.76	Polypropylene/Polyethylene
177	mesoplastic (5-25mm)	line	silver	0.41	Polypropylene/Polyethylene
178	mesoplastic (5-25mm)	line	white	1.71	Polypropylene/Polyethylene
179	mesoplastic (5-25mm)	line	white	0.53	Polypropylene/Polyethylene
180	microplastic (<5mm)	line	white	0.08	Polypropylene/Polyethylene
181	microplastic (<5mm)	line	blue	0.03	Polypropylene/Polyethylene
182	mesoplastic (5-25mm)	line	beige	0.18	Polypropylene/Polyethylene
183	microplastic (<5mm)	fragment	beige	0.25	Polypropylene/Polyethylene
184	mesoplastic (5-25mm)	line	gray	1.43	Polypropylene/Polyethylene
185	macroplastic (>25mm)	line	white	324.63	Polypropylene/Polyethylene
186	mesoplastic (5-25mm)	line	white	6.11	Polypropylene/Polyethylene
187	macroplastic (>25mm)	line	white	46.02	Polypropylene/Polyethylene
188	macroplastic (>25mm)	line	white	27.66	Polypropylene/Polyethylene
189	macroplastic (>25mm)	line	white	9.31	Polypropylene/Polyethylene
190	macroplastic (>25mm)	line	green	7.87	Polypropylene/Polyethylene
191	macroplastic (>25mm)	line	green	24.26	Polypropylene/Polyethylene
192	macroplastic (>25mm)	line	white	10.08	Polypropylene/Polyethylene
193	macroplastic (>25mm)	line	white	143.98	Polypropylene/Polyethylene
194	macroplastic (>25mm)	line	silver	15.44	Polypropylene/Polyethylene

195	macroplastic (>25mm)	line	white	1.56	Polypropylene/Polyethylene
196	macroplastic (>25mm)	line	white	22.51	Polypropylene/Polyethylene
197	macroplastic (>25mm)	line	white	3.47	Polypropylene/Polyethylene
198	mesoplastic (5-25mm)	line	white	3.9	Polypropylene/Polyethylene
199	mesoplastic (5-25mm)	line	white	2.44	Polypropylene/Polyethylene
200	mesoplastic (5-25mm)	fragment	gray	5.11	Polypropylene/Polyethylene
201	mesoplastic (5-25mm)	fragment	black	8.73	Polypropylene/Polyethylene
202	macroplastic (>25mm)	line	white	2.7	Polypropylene/Polyethylene
203	mesoplastic (5-25mm)	line	black	2.4	Polypropylene/Polyethylene
204	mesoplastic (5-25mm)	line	white	0.95	Polypropylene/Polyethylene
205	mesoplastic (5-25mm)	fragment	pink	3.01	Polypropylene/Polyethylene
206	mesoplastic (5-25mm)	line	white	0.53	Polypropylene/Polyethylene
207	mesoplastic (5-25mm)	line	white	0.32	Polypropylene/Polyethylene
208	mesoplastic (5-25mm)	fragment	gray	76.8	Polypropylene/Polyethylene
209	mesoplastic (5-25mm)	line	white	3.55	Polypropylene/Polyethylene
210	macroplastic (>25mm)	line	white	8.66	Polypropylene/Polyethylene
211	macroplastic (>25mm)	line	green	3.86	Polypropylene/Polyethylene
212	mesoplastic (5-25mm)	line	green	13.96	Polypropylene/Polyethylene
213	mesoplastic (5-25mm)	fragment	green	46.48	Polypropylene/Polyethylene
214	macroplastic (>25mm)	line	white	6.7	Polypropylene/Polyethylene
215	mesoplastic (5-25mm)	line	blue	2.8	Polypropylene/Polyethylene
216	macroplastic (>25mm)	line	white	1.2	Polypropylene/Polyethylene
217	mesoplastic (5-25mm)	line	white	4.34	Polypropylene/Polyethylene
218	macroplastic (>25mm)	line	white	5.07	Polypropylene/Polyethylene
219	mesoplastic (5-25mm)	fragment	white	22	Polypropylene/Polyethylene
220	mesoplastic (5-25mm)	line	white	4.65	Polypropylene/Polyethylene
221	mesoplastic (5-25mm)	line	green	1.45	Polypropylene/Polyethylene
222	mesoplastic (5-25mm)	line	white	2.96	Polypropylene/Polyethylene
223	mesoplastic (5-25mm)	line	white	2.39	Polypropylene/Polyethylene
224	microplastic (<5mm)	nurdle	black	21.4	Polypropylene/Polyethylene
225	microplastic (<5mm)	fragment	blue	4.78	Polypropylene/Polyethylene
226	mesoplastic (5-25mm)	line	white	1.24	Polypropylene/Polyethylene
227	microplastic (<5mm)	nurdle	black	15.24	Polypropylene/Polyethylene
228	mesoplastic (5-25mm)	fragment	black	2.49	Polypropylene/Polyethylene
229	mesoplastic (5-25mm)	line	green	0.85	Polypropylene/Polyethylene
230	mesoplastic (5-25mm)	line	white	1.56	Polypropylene/Polyethylene
231	mesoplastic (5-25mm)	line	white	1.64	Polypropylene/Polyethylene
232	mesoplastic (5-25mm)	line	white	3.29	Polypropylene/Polyethylene
233	microplastic (<5mm)	line	green	0.75	Polypropylene/Polyethylene
234	mesoplastic (5-25mm)	line	white	3.58	Polypropylene/Polyethylene
235	microplastic (<5mm)	line	green	0.15	Polypropylene/Polyethylene
236	mesoplastic (5-25mm)	fragment	white	90.03	Polypropylene
237	microplastic (<5mm)	fragment	white	1.66	Polypropylene
238	microplastic (<5mm)	fragment	white	0.34	Polypropylene
239	microplastic (<5mm)	fragment	white	0.01	Polypropylene
240	microplastic (<5mm)	fragment	beige	0.4	Polypropylene
241	microplastic (<5mm)	fragment	beige	0.54	Polypropylene
242	microplastic (<5mm)	fragment	white	0.74	Polypropylene
243	microplastic (<5mm)	fragment	white	13.43	Polypropylene
244	microplastic (<5mm)	fragment	beige	4.6	Polypropylene
245	microplastic (<5mm)	fragment	white	3.11	Polypropylene
246	microplastic (<5mm)	fragment	white	0.93	Polypropylene
247	microplastic (<5mm)	fragment	white	0.29	Polypropylene
248	microplastic (<5mm)	fragment	white	1.46	Polypropylene
249	microplastic (<5mm)	fragment	beige	2.71	Polypropylene
250	microplastic (<5mm)	fragment	beige	0.37	Polypropylene
251	microplastic (<5mm)	fragment	beige	0.44	Polypropylene
252	microplastic (<5mm)	fragment	green	<0.01	Polypropylene
253	mesoplastic (5-25mm)	line	yellow	0.96	Polypropylene
254	microplastic (<5mm)	line	green	<0.01	Polypropylene
255	microplastic (<5mm)	sheet	blue	0.2	Polypropylene
256	microplastic (<5mm)	sheet	blue	0.19	Polypropylene
257	microplastic (<5mm)	fragment	beige	0.3	Polypropylene
258	microplastic (<5mm)	fragment	beige	0.57	Polypropylene
259	microplastic (<5mm)	fragment	green	0.27	Polypropylene

260	microplastic (<5mm)	fragment	beige	0.17	Polypropylene
261	microplastic (<5mm)	fragment	white	0.31	Polypropylene
262	mesoplastic (5-25mm)	fragment	white	122.79	Polypropylene
263	macroplastic (>25mm)	line	gray	10.12	Polypropylene
264	mesoplastic (5-25mm)	fragment	white	76.87	Polypropylene
265	mesoplastic (5-25mm)	fragment	white	52.75	Polypropylene
266	macroplastic (>25mm)	line	white	6.5	Polypropylene
267	mesoplastic (5-25mm)	fragment	white	18.92	Polypropylene
268	macroplastic (>25mm)	line	yellow	2.02	Polypropylene
269	mesoplastic (5-25mm)	line	white	0.33	Polypropylene
270	microplastic (<5mm)	nurdle	white	15.96	Polypropylene
271	microplastic (<5mm)	fragment	beige	1.07	Polypropylene
272	mesoplastic (5-25mm)	fragment	white	27.81	Polypropylene
273	mesoplastic (5-25mm)	fragment	blue	36.33	Polypropylene
274	mesoplastic (5-25mm)	fragment	white	16.09	Polypropylene
275	microplastic (<5mm)	fragment	beige	31.12	Polypropylene
276	microplastic (<5mm)	nurdle	white	20.68	Polypropylene
277	mesoplastic (5-25mm)	line	white	3.72	Polypropylene
278	mesoplastic (5-25mm)	fragment	blue	14.55	Polypropylene
279	microplastic (<5mm)	fragment	white	13.65	Polypropylene
280	microplastic (<5mm)	fragment	white	15.33	Polypropylene
281	mesoplastic (5-25mm)	fragment	white	32.83	Polypropylene
282	microplastic (<5mm)	fragment	white	8.28	Polypropylene
283	microplastic (<5mm)	fragment	gray	4.06	Polypropylene
284	mesoplastic (5-25mm)	line	green	4.72	Polypropylene
285	microplastic (<5mm)	fragment	white	8.42	Polypropylene
286	mesoplastic (5-25mm)	fragment	white	11.61	Polypropylene
287	mesoplastic (5-25mm)	line	white	2.35	Polypropylene
288	microplastic (<5mm)	fragment	white	23.46	Polypropylene
289	mesoplastic (5-25mm)	fragment	beige	27.1	Polypropylene
290	microplastic (<5mm)	fragment	white	21.09	Polypropylene
291	mesoplastic (5-25mm)	fragment	beige	10.75	Polypropylene
292	microplastic (<5mm)	fragment	beige	5.21	Polypropylene
293	microplastic (<5mm)	fragment	green	10.31	Polypropylene
294	microplastic (<5mm)	fragment	green	4.61	Polypropylene
295	microplastic (<5mm)	fragment	brown	4.82	Polypropylene
296	microplastic (<5mm)	fragment	beige	8.41	Polypropylene
297	microplastic (<5mm)	fragment	white	2.6	Polypropylene
298	microplastic (<5mm)	fragment	green	5.12	Polypropylene
299	mesoplastic (5-25mm)	line	orange	0.97	Polypropylene
300	microplastic (<5mm)	fragment	green	6.62	Polypropylene
301	mesoplastic (5-25mm)	line	blue	0.55	Polypropylene
302	microplastic (<5mm)	fragment	beige	7.06	Polypropylene
303	microplastic (<5mm)	fragment	brown	1.39	Polypropylene
304	microplastic (<5mm)	fragment	white	1.1	Polypropylene
305	mesoplastic (5-25mm)	line	yellow	1.15	Polypropylene
306	microplastic (<5mm)	fragment	white	2.51	Polypropylene
307	microplastic (<5mm)	fragment	green	2.23	Polypropylene
308	microplastic (<5mm)	fragment	white	2.92	Polypropylene
309	microplastic (<5mm)	fragment	white	1.5	Polypropylene
310	microplastic (<5mm)	fragment	white	3.41	Polypropylene
311	microplastic (<5mm)	fragment	white	1.02	Polypropylene
312	microplastic (<5mm)	fragment	white	2.31	Polypropylene
313	microplastic (<5mm)	fragment	white	<0.01	Polypropylene
314	mesoplastic (5-25mm)	line	green	0.63	Low-Density Polyethylene
315	microplastic (<5mm)	fragment	white	17.48	Low-Density Polyethylene
316	mesoplastic (5-25mm)	fragment	blue	27.79	Low-Density Polyethylene
317	microplastic (<5mm)	fragment	yellow	7.82	Low-Density Polyethylene
318	microplastic (<5mm)	fragment	green	6.73	Low-Density Polyethylene
319	microplastic (<5mm)	fragment	white	20.19	Low-Density Polyethylene
320	microplastic (<5mm)	fragment	white	2.72	Low-Density Polyethylene
321	microplastic (<5mm)	fragment	white	15.42	Low-Density Polyethylene
322	microplastic (<5mm)	fragment	white	1.05	Low-Density Polyethylene
323	microplastic (<5mm)	fragment	white	4.08	Low-Density Polyethylene
324	microplastic (<5mm)	fragment	blue	3.13	Low-Density Polyethylene

325	microplastic (<5mm)	fragment	black	0.27	Low-Density Polyethylene
326	microplastic (<5mm)	fragment	black	0.34	Low-Density Polyethylene
327	microplastic (<5mm)	fragment	white	0.24	Low-Density Polyethylene
328	microplastic (<5mm)	fragment	white	0.19	Low-Density Polyethylene
329	microplastic (<5mm)	fragment	beige	0.57	Low-Density Polyethylene
330	microplastic (<5mm)	fragment	white	<0.01	Low-Density Polyethylene
331	microplastic (<5mm)	fragment	blue	1.03	Low-Density Polyethylene
332	microplastic (<5mm)	fragment	blue	7.1	Low-Density Polyethylene
333	mesoplastic (5-25mm)	line	blue	1.17	Low-Density Polyethylene
334	microplastic (<5mm)	fragment	white	18.31	Low-Density Polyethylene
335	microplastic (<5mm)	fragment	white	5.03	Low-Density Polyethylene
336	microplastic (<5mm)	fragment	gray	4.22	Low-Density Polyethylene
337	microplastic (<5mm)	fragment	blue	1.21	Low-Density Polyethylene
338	microplastic (<5mm)	fragment	beige	0.91	Low-Density Polyethylene
339	microplastic (<5mm)	fragment	white	4.21	Low-Density Polyethylene
340	microplastic (<5mm)	fragment	beige	4.14	Low-Density Polyethylene
341	microplastic (<5mm)	fragment	beige	1.14	Low-Density Polyethylene
342	microplastic (<5mm)	fragment	beige	0.26	Low-Density Polyethylene
343	microplastic (<5mm)	fragment	white	0.73	Low-Density Polyethylene
344	microplastic (<5mm)	fragment	white	0.87	Low-Density Polyethylene
345	microplastic (<5mm)	fragment	beige	2.29	Low-Density Polyethylene
346	microplastic (<5mm)	fragment	white	0.42	Low-Density Polyethylene
347	microplastic (<5mm)	fragment	white	0.2	Low-Density Polyethylene
348	microplastic (<5mm)	fragment	white	0.1	Low-Density Polyethylene
349	microplastic (<5mm)	fragment	blue	0.2	Low-Density Polyethylene
350	microplastic (<5mm)	fragment	beige	0.48	Low-Density Polyethylene
351	microplastic (<5mm)	fragment	white	0.2	Low-Density Polyethylene
352	microplastic (<5mm)	fragment	white	0.53	Low-Density Polyethylene
353	microplastic (<5mm)	fragment	white	15.47	Low-Density Polyethylene
354	microplastic (<5mm)	fragment	black	3.24	Low-Density Polyethylene
355	microplastic (<5mm)	fragment	beige	2.3	Low-Density Polyethylene
356	microplastic (<5mm)	fragment	white	3.82	Low-Density Polyethylene
357	microplastic (<5mm)	fragment	white	0.62	Low-Density Polyethylene
358	microplastic (<5mm)	fragment	blue	0.84	Low-Density Polyethylene
359	microplastic (<5mm)	fragment	white	0.52	Low-Density Polyethylene
360	microplastic (<5mm)	fragment	white	1.19	Low-Density Polyethylene
361	microplastic (<5mm)	fragment	green	<0.01	Low-Density Polyethylene
362	mesoplastic (5-25mm)	line	blue	1.53	Low-Density Polyethylene
363	microplastic (<5mm)	fragment	beige	0.44	Low-Density Polyethylene
364	microplastic (<5mm)	fragment	white	0.14	Low-Density Polyethylene
365	microplastic (<5mm)	fragment	white	<0.01	Low-Density Polyethylene
366	microplastic (<5mm)	fragment	white	0.09	Low-Density Polyethylene
367	microplastic (<5mm)	fragment	white	<0.01	Low-Density Polyethylene
368	microplastic (<5mm)	fragment	white	0.08	Low-Density Polyethylene
369	microplastic (<5mm)	fragment	white	<0.01	Low-Density Polyethylene
370	microplastic (<5mm)	line	white	<0.01	Low-Density Polyethylene
371	macroplastic (>25mm)	line	white	8.53	Low-Density Polyethylene
372	mesoplastic (5-25mm)	line	white	1.92	Low-Density Polyethylene
373	mesoplastic (5-25mm)	fragment	white	68.61	Low-Density Polyethylene
374	mesoplastic (5-25mm)	line	blue	0.97	Low-Density Polyethylene
375	mesoplastic (5-25mm)	line	gray	0.32	Low-Density Polyethylene
376	microplastic (<5mm)	line	green	0.28	Low-Density Polyethylene
377	microplastic (<5mm)	fragment	white	1.09	Low-Density Polyethylene
378	microplastic (<5mm)	line	white	0.39	Low-Density Polyethylene
379	microplastic (<5mm)	fragment	white	<0.01	Low-Density Polyethylene
380	microplastic (<5mm)	fragment	green	1.28	Low-Density Polyethylene
381	microplastic (<5mm)	fragment	beige	0.49	Low-Density Polyethylene
382	microplastic (<5mm)	fragment	gray	0.65	Low-Density Polyethylene
383	microplastic (<5mm)	fragment	green	0.67	Low-Density Polyethylene
384	microplastic (<5mm)	fragment	beige	0.56	Low-Density Polyethylene
385	microplastic (<5mm)	fragment	white	0.42	Low-Density Polyethylene
386	microplastic (<5mm)	line	white	0.25	Low-Density Polyethylene
387	microplastic (<5mm)	fragment	blue	0.07	Low-Density Polyethylene
388	microplastic (<5mm)	fragment	green	0.08	Low-Density Polyethylene
389	microplastic (<5mm)	line	blue	0.21	Low-Density Polyethylene

390	microplastic (<5mm)	line	green	0.06	Low-Density Polyethylene
391	microplastic (<5mm)	fragment	white	2.61	Low-Density Polyethylene
392	microplastic (<5mm)	fragment	white	5.77	Low-Density Polyethylene
393	macroplastic (>25mm)	sheet	black	293.35	Low-Density Polyethylene
394	macroplastic (>25mm)	sheet	black	137.68	Low-Density Polyethylene
395	macroplastic (>25mm)	sheet	colorless	126.01	Low-Density Polyethylene
396	macroplastic (>25mm)	sheet	green	70.25	Low-Density Polyethylene
397	mesoplastic (5-25mm)	fragment	yellow	220.54	Low-Density Polyethylene
398	macroplastic (>25mm)	line	white	3.73	Low-Density Polyethylene
399	mesoplastic (5-25mm)	fragment	green	56.54	Low-Density Polyethylene
400	mesoplastic (5-25mm)	fragment	white	78.75	Low-Density Polyethylene
401	macroplastic (>25mm)	sheet	black	26.68	Low-Density Polyethylene
402	mesoplastic (5-25mm)	fragment	gray	304.18	Low-Density Polyethylene
403	mesoplastic (5-25mm)	fragment	beige	35.63	Low-Density Polyethylene
404	microplastic (<5mm)	fragment	white	15.99	Low-Density Polyethylene
405	microplastic (<5mm)	fragment	blue	2.42	Low-Density Polyethylene
406	microplastic (<5mm)	nurdle	beige	15.73	Low-Density Polyethylene
407	mesoplastic (5-25mm)	fragment	white	75.92	Low-Density Polyethylene
408	microplastic (<5mm)	fragment	beige	8.19	Low-Density Polyethylene
409	microplastic (<5mm)	fragment	beige	20.75	Low-Density Polyethylene
410	microplastic (<5mm)	fragment	black	7.04	Low-Density Polyethylene
411	microplastic (<5mm)	fragment	black	15.4	Low-Density Polyethylene
412	microplastic (<5mm)	fragment	white	11.05	Low-Density Polyethylene
413	microplastic (<5mm)	fragment	blue	13.27	Low-Density Polyethylene
414	microplastic (<5mm)	fragment	white	14.1	Low-Density Polyethylene
415	microplastic (<5mm)	fragment	white	5.75	Low-Density Polyethylene
416	mesoplastic (5-25mm)	fragment	gray	445.6	Low-Density Polyethylene
417	mesoplastic (5-25mm)	fragment	white	58.86	Low-Density Polyethylene
418	mesoplastic (5-25mm)	fragment	white	17.66	Low-Density Polyethylene
419	mesoplastic (5-25mm)	fragment	blue	52.3	Low-Density Polyethylene
420	microplastic (<5mm)	fragment	beige	23.17	Low-Density Polyethylene
421	macroplastic (>25mm)	line	gray	2.02	Low-Density Polyethylene
422	mesoplastic (5-25mm)	fragment	white	22.28	Low-Density Polyethylene
423	mesoplastic (5-25mm)	fragment	white	27.57	Low-Density Polyethylene
424	microplastic (<5mm)	nurdle	white	20.01	Low-Density Polyethylene
425	microplastic (<5mm)	nurdle	white	20.04	Low-Density Polyethylene
426	microplastic (<5mm)	nurdle	white	10.63	Low-Density Polyethylene
427	microplastic (<5mm)	nurdle	white	7.4	Low-Density Polyethylene
428	mesoplastic (5-25mm)	sheet	colorless	12.92	Low-Density Polyethylene
429	mesoplastic (5-25mm)	fragment	white	18.7	Low-Density Polyethylene
430	macroplastic (>25mm)	line	black	8.79	Low-Density Polyethylene
431	mesoplastic (5-25mm)	sheet	black	14.62	Low-Density Polyethylene
432	microplastic (<5mm)	fragment	white	30.95	Low-Density Polyethylene
433	mesoplastic (5-25mm)	fragment	white	38.45	Low-Density Polyethylene
434	mesoplastic (5-25mm)	sheet	black	4.73	Low-Density Polyethylene
435	mesoplastic (5-25mm)	fragment	white	10.6	Low-Density Polyethylene
436	microplastic (<5mm)	nurdle	beige	24.09	Low-Density Polyethylene
437	microplastic (<5mm)	nurdle	beige	21.46	Low-Density Polyethylene
438	microplastic (<5mm)	nurdle	beige	13.96	Low-Density Polyethylene
439	microplastic (<5mm)	fragment	white	13	Low-Density Polyethylene
440	microplastic (<5mm)	fragment	blue	19.09	Low-Density Polyethylene
441	mesoplastic (5-25mm)	fragment	beige	12.64	Low-Density Polyethylene
442	microplastic (<5mm)	fragment	white	9.79	Low-Density Polyethylene
443	microplastic (<5mm)	fragment	white	5.6	Low-Density Polyethylene
444	microplastic (<5mm)	fragment	white	5.39	Low-Density Polyethylene
445	microplastic (<5mm)	fragment	yellow	1.48	Low-Density Polyethylene
446	mesoplastic (5-25mm)	line	white	1.72	Low-Density Polyethylene
447	mesoplastic (5-25mm)	fragment	blue	12.51	Low-Density Polyethylene
448	mesoplastic (5-25mm)	fragment	white	24.97	Low-Density Polyethylene
449	mesoplastic (5-25mm)	fragment	white	32.03	Low-Density Polyethylene
450	microplastic (<5mm)	fragment	green	12.86	Low-Density Polyethylene
451	mesoplastic (5-25mm)	fragment	black	14.17	Low-Density Polyethylene
452	microplastic (<5mm)	fragment	blue	4.08	Low-Density Polyethylene
453	microplastic (<5mm)	fragment	white	17.57	Low-Density Polyethylene
454	microplastic (<5mm)	fragment	beige	12.1	Low-Density Polyethylene

455	microplastic (<5mm)	fragment	red	3.79	Low-Density Polyethylene
456	mesoplastic (5-25mm)	fragment	white	14.78	Low-Density Polyethylene
457	microplastic (<5mm)	fragment	green	9.38	Low-Density Polyethylene
458	microplastic (<5mm)	fragment	beige	26.02	Low-Density Polyethylene
459	microplastic (<5mm)	fragment	beige	18.26	Low-Density Polyethylene
460	microplastic (<5mm)	fragment	brown	12.31	Low-Density Polyethylene
461	mesoplastic (5-25mm)	fragment	white	24.09	Low-Density Polyethylene
462	microplastic (<5mm)	fragment	green	3.05	Low-Density Polyethylene
463	microplastic (<5mm)	fragment	blue	4.65	Low-Density Polyethylene
464	microplastic (<5mm)	fragment	blue	11.25	Low-Density Polyethylene
465	microplastic (<5mm)	fragment	white	26.04	Low-Density Polyethylene
466	microplastic (<5mm)	fragment	white	11.47	Low-Density Polyethylene
467	microplastic (<5mm)	fragment	beige	11.6	Low-Density Polyethylene
468	microplastic (<5mm)	fragment	white	10.05	Low-Density Polyethylene
469	microplastic (<5mm)	fragment	black	23.27	Low-Density Polyethylene
470	microplastic (<5mm)	fragment	gray	12.32	Low-Density Polyethylene
471	microplastic (<5mm)	fragment	orange	4.43	Low-Density Polyethylene
472	microplastic (<5mm)	foam	white	0.93	Low-Density Polyethylene
473	microplastic (<5mm)	fragment	beige	14.94	Low-Density Polyethylene
474	microplastic (<5mm)	nurdle	white	10.87	Low-Density Polyethylene
475	microplastic (<5mm)	fragment	white	13.12	Low-Density Polyethylene
476	microplastic (<5mm)	fragment	brown	9.89	Low-Density Polyethylene
477	microplastic (<5mm)	fragment	blue	2.99	Low-Density Polyethylene
478	microplastic (<5mm)	fragment	black	11.89	Low-Density Polyethylene
479	microplastic (<5mm)	nurdle	beige	6.1	Low-Density Polyethylene
480	microplastic (<5mm)	fragment	gray	4.92	Low-Density Polyethylene
481	microplastic (<5mm)	fragment	beige	10.25	Low-Density Polyethylene
482	microplastic (<5mm)	fragment	blue	1.99	Low-Density Polyethylene
483	microplastic (<5mm)	fragment	green	0.86	Low-Density Polyethylene
484	microplastic (<5mm)	fragment	beige	7.22	Low-Density Polyethylene
485	microplastic (<5mm)	fragment	beige	8.14	Low-Density Polyethylene
486	mesoplastic (5-25mm)	line	blue	4.59	Low-Density Polyethylene
487	microplastic (<5mm)	fragment	beige	13.17	Low-Density Polyethylene
488	microplastic (<5mm)	fragment	green	6.56	Low-Density Polyethylene
489	microplastic (<5mm)	fragment	blue	5.56	Low-Density Polyethylene
490	microplastic (<5mm)	fragment	white	9.43	Low-Density Polyethylene
491	microplastic (<5mm)	fragment	white	19.12	Low-Density Polyethylene
492	microplastic (<5mm)	sheet	colorless	1.19	Low-Density Polyethylene
493	microplastic (<5mm)	sheet	colorless	0.56	Low-Density Polyethylene
494	mesoplastic (5-25mm)	sheet	colorless	0.8	Low-Density Polyethylene
495	microplastic (<5mm)	sheet	purple	0.1	Low-Density Polyethylene
496	microplastic (<5mm)	fragment	blue	4.08	Low-Density Polyethylene
497	microplastic (<5mm)	fragment	white	9.78	Low-Density Polyethylene
498	microplastic (<5mm)	sheet	black	0.59	Low-Density Polyethylene
499	microplastic (<5mm)	fragment	beige	9.51	Low-Density Polyethylene
500	microplastic (<5mm)	fragment	blue	4.73	Low-Density Polyethylene
501	mesoplastic (5-25mm)	sheet	black	2.12	Low-Density Polyethylene
502	microplastic (<5mm)	fragment	green	1.12	Low-Density Polyethylene
503	microplastic (<5mm)	fragment	beige	8.97	Low-Density Polyethylene
504	microplastic (<5mm)	fragment	yellow	0.963	Low-Density Polyethylene
505	microplastic (<5mm)	fragment	yellow	1.68	Low-Density Polyethylene
506	microplastic (<5mm)	fragment	beige	4.72	Low-Density Polyethylene
507	microplastic (<5mm)	fragment	beige	1.34	Low-Density Polyethylene
508	microplastic (<5mm)	fragment	gray	3.63	Low-Density Polyethylene
509	microplastic (<5mm)	fragment	gray	5.79	Low-Density Polyethylene
510	microplastic (<5mm)	fragment	beige	1.78	Low-Density Polyethylene
511	microplastic (<5mm)	fragment	beige	1.58	Low-Density Polyethylene
512	microplastic (<5mm)	fragment	beige	0.53	Low-Density Polyethylene
513	microplastic (<5mm)	fragment	brown	1.91	Low-Density Polyethylene
514	microplastic (<5mm)	fragment	gray	1.03	Low-Density Polyethylene
515	microplastic (<5mm)	sheet	black	0.3	Low-Density Polyethylene
516	microplastic (<5mm)	fragment	brown	0.64	Low-Density Polyethylene
517	microplastic (<5mm)	fragment	brown	0.37	Low-Density Polyethylene
518	microplastic (<5mm)	fragment	white	2.93	Low-Density Polyethylene
519	microplastic (<5mm)	fragment	white	6.4	Low-Density Polyethylene

520	mesoplastic (5-25mm)	line	gray	1.98	Low-Density Polyethylene
521	mesoplastic (5-25mm)	sheet	black	3.61	Low-Density Polyethylene
522	mesoplastic (5-25mm)	line	green	1.25	Low-Density Polyethylene
523	mesoplastic (5-25mm)	sheet	black	3.06	Low-Density Polyethylene
524	microplastic (<5mm)	fragment	green	1.13	Low-Density Polyethylene
525	microplastic (<5mm)	fragment	green	0.81	Low-Density Polyethylene
526	microplastic (<5mm)	fragment	green	0.33	Low-Density Polyethylene
527	microplastic (<5mm)	fragment	blue	5.55	Low-Density Polyethylene
528	microplastic (<5mm)	fragment	blue	1.31	Low-Density Polyethylene
529	microplastic (<5mm)	fragment	blue	0.37	Low-Density Polyethylene
530	microplastic (<5mm)	fragment	blue	0.68	Low-Density Polyethylene
531	microplastic (<5mm)	fragment	white	2.54	Low-Density Polyethylene
532	microplastic (<5mm)	fragment	white	3.36	Low-Density Polyethylene
533	microplastic (<5mm)	fragment	white	3.41	Low-Density Polyethylene
534	microplastic (<5mm)	fragment	white	3.2	Low-Density Polyethylene
535	microplastic (<5mm)	fragment	white	2.36	Low-Density Polyethylene
536	microplastic (<5mm)	fragment	white	3.54	Low-Density Polyethylene
537	microplastic (<5mm)	fragment	white	2.16	Low-Density Polyethylene
538	microplastic (<5mm)	fragment	white	2.38	Low-Density Polyethylene
539	microplastic (<5mm)	fragment	white	1.89	Low-Density Polyethylene
540	microplastic (<5mm)	fragment	white	2.3	Low-Density Polyethylene
541	microplastic (<5mm)	fragment	white	2.05	Low-Density Polyethylene
542	microplastic (<5mm)	fragment	white	1.79	Low-Density Polyethylene
543	microplastic (<5mm)	fragment	white	0.66	Low-Density Polyethylene
544	microplastic (<5mm)	fragment	white	2.62	Low-Density Polyethylene
545	microplastic (<5mm)	fragment	white	1.92	Low-Density Polyethylene
546	microplastic (<5mm)	fragment	white	3.42	Low-Density Polyethylene
547	microplastic (<5mm)	fragment	white	1.72	Low-Density Polyethylene
548	microplastic (<5mm)	line	white	0.7	Low-Density Polyethylene
549	microplastic (<5mm)	fragment	white	1.9	Low-Density Polyethylene
550	microplastic (<5mm)	fragment	white	1.47	Low-Density Polyethylene
551	mesoplastic (5-25mm)	line	orange	0.8	Low-Density Polyethylene
552	microplastic (<5mm)	fragment	white	1	Low-Density Polyethylene
553	microplastic (<5mm)	fragment	green	0.76	High-Density Polyethylene
554	microplastic (<5mm)	fragment	white	1.46	High-Density Polyethylene
555	microplastic (<5mm)	fragment	white	1.72	High-Density Polyethylene
556	microplastic (<5mm)	fragment	white	0.39	High-Density Polyethylene
557	microplastic (<5mm)	fragment	white	0.58	High-Density Polyethylene
558	microplastic (<5mm)	fragment	white	0.33	High-Density Polyethylene
559	microplastic (<5mm)	fragment	white	0.94	High-Density Polyethylene
560	microplastic (<5mm)	fragment	white	0.47	High-Density Polyethylene
561	microplastic (<5mm)	fragment	white	0.22	High-Density Polyethylene
562	macroplastic (>25mm)	line	blue	2.34	High-Density Polyethylene
563	microplastic (<5mm)	line	gray	0.2	High-Density Polyethylene
564	microplastic (<5mm)	fragment	white	5.84	High-Density Polyethylene
565	microplastic (<5mm)	fragment	white	2.18	High-Density Polyethylene
566	microplastic (<5mm)	fragment	white	7.48	High-Density Polyethylene
567	microplastic (<5mm)	fragment	white	2.1	High-Density Polyethylene
568	microplastic (<5mm)	fragment	beige	10.03	High-Density Polyethylene
569	microplastic (<5mm)	fragment	white	28.42	High-Density Polyethylene
570	microplastic (<5mm)	fragment	white	2.54	High-Density Polyethylene
571	microplastic (<5mm)	fragment	blue	6.42	High-Density Polyethylene
572	microplastic (<5mm)	fragment	white	4.74	High-Density Polyethylene
573	microplastic (<5mm)	fragment	beige	1.94	High-Density Polyethylene
574	microplastic (<5mm)	fragment	green	0.27	High-Density Polyethylene
575	microplastic (<5mm)	fragment	beige	3.61	High-Density Polyethylene
576	microplastic (<5mm)	fragment	white	1.37	High-Density Polyethylene
577	microplastic (<5mm)	fragment	white	9.23	High-Density Polyethylene
578	microplastic (<5mm)	fragment	white	0.91	High-Density Polyethylene
579	microplastic (<5mm)	fragment	green	0.48	High-Density Polyethylene
580	mesoplastic (5-25mm)	line	gray	0.67	High-Density Polyethylene
581	mesoplastic (5-25mm)	line	white	0.93	High-Density Polyethylene
582	microplastic (<5mm)	fragment	beige	14.32	High-Density Polyethylene
583	mesoplastic (5-25mm)	line	gray	0.68	High-Density Polyethylene
584	microplastic (<5mm)	fragment	white	0.56	High-Density Polyethylene

585	microplastic (<5mm)	fragment	green	0.16	High-Density Polyethylene
586	microplastic (<5mm)	fragment	blue	0.46	High-Density Polyethylene
587	microplastic (<5mm)	fragment	white	0.12	High-Density Polyethylene
588	microplastic (<5mm)	fragment	blue	0.2	High-Density Polyethylene
589	microplastic (<5mm)	fragment	white	0.24	High-Density Polyethylene
590	microplastic (<5mm)	fragment	white	0.16	High-Density Polyethylene
591	microplastic (<5mm)	line	gray	0.06	High-Density Polyethylene
592	microplastic (<5mm)	fragment	white	0.21	High-Density Polyethylene
593	microplastic (<5mm)	fragment	white	10.39	High-Density Polyethylene
594	microplastic (<5mm)	fragment	white	2.89	High-Density Polyethylene
595	macroplastic (>25mm)	line	green	93.59	High-Density Polyethylene
596	macroplastic (>25mm)	line	green	11.53	High-Density Polyethylene
597	microplastic (<5mm)	fragment	white	10.01	High-Density Polyethylene
598	mesoplastic (5-25mm)	fragment	blue	552.95	High-Density Polyethylene
599	mesoplastic (5-25mm)	fragment	white	405.09	High-Density Polyethylene
600	mesoplastic (5-25mm)	fragment	white	122.54	High-Density Polyethylene
601	macroplastic (>25mm)	line	gray	2.1	High-Density Polyethylene
602	mesoplastic (5-25mm)	fragment	white	16.41	High-Density Polyethylene
603	mesoplastic (5-25mm)	fragment	white	69.44	High-Density Polyethylene
604	mesoplastic (5-25mm)	fragment	white	37.56	High-Density Polyethylene
605	macroplastic (>25mm)	line	green	1.79	High-Density Polyethylene
606	microplastic (<5mm)	fragment	green	13.2	High-Density Polyethylene
607	microplastic (<5mm)	fragment	blue	7.42	High-Density Polyethylene
608	microplastic (<5mm)	fragment	white	5.62	High-Density Polyethylene
609	microplastic (<5mm)	fragment	blue	4.96	High-Density Polyethylene
610	mesoplastic (5-25mm)	fragment	white	177.35	High-Density Polyethylene
611	mesoplastic (5-25mm)	fragment	brown	196.55	High-Density Polyethylene
612	mesoplastic (5-25mm)	fragment	white	90.73	High-Density Polyethylene
613	mesoplastic (5-25mm)	fragment	green	20.25	High-Density Polyethylene
614	mesoplastic (5-25mm)	sheet	white	13.96	High-Density Polyethylene
615	mesoplastic (5-25mm)	fragment	beige	40.6	High-Density Polyethylene
616	mesoplastic (5-25mm)	fragment	white	46.12	High-Density Polyethylene
617	mesoplastic (5-25mm)	fragment	white	33.21	High-Density Polyethylene
618	mesoplastic (5-25mm)	fragment	blue	185.2	High-Density Polyethylene
619	mesoplastic (5-25mm)	fragment	white	19.45	High-Density Polyethylene
620	mesoplastic (5-25mm)	fragment	yellow	136.65	High-Density Polyethylene
621	mesoplastic (5-25mm)	fragment	white	52.07	High-Density Polyethylene
622	mesoplastic (5-25mm)	fragment	white	39.73	High-Density Polyethylene
623	macroplastic (>25mm)	line	white	3.7	High-Density Polyethylene
624	mesoplastic (5-25mm)	fragment	beige	60.47	High-Density Polyethylene
625	mesoplastic (5-25mm)	fragment	white	34.49	High-Density Polyethylene
626	microplastic (<5mm)	fragment	white	1.78	High-Density Polyethylene
627	mesoplastic (5-25mm)	fragment	white	17.96	High-Density Polyethylene
628	mesoplastic (5-25mm)	line	white	0.7	High-Density Polyethylene
629	microplastic (<5mm)	fragment	white	16.8	High-Density Polyethylene
630	mesoplastic (5-25mm)	fragment	white	31.45	High-Density Polyethylene
631	mesoplastic (5-25mm)	fragment	white	27.1	High-Density Polyethylene
632	microplastic (<5mm)	nurdle	white	17.18	High-Density Polyethylene
633	microplastic (<5mm)	nurdle	white	19.77	High-Density Polyethylene
634	microplastic (<5mm)	nurdle	white	13.72	High-Density Polyethylene
635	microplastic (<5mm)	fragment	white	2.97	High-Density Polyethylene
636	microplastic (<5mm)	fragment	beige	9.06	High-Density Polyethylene
637	mesoplastic (5-25mm)	fragment	blue	19.87	High-Density Polyethylene
638	mesoplastic (5-25mm)	fragment	white	16.95	High-Density Polyethylene
639	microplastic (<5mm)	fragment	white	8.06	High-Density Polyethylene
640	microplastic (<5mm)	fragment	white	3.92	High-Density Polyethylene
641	microplastic (<5mm)	fragment	white	1.9	High-Density Polyethylene
642	microplastic (<5mm)	fragment	white	1.47	High-Density Polyethylene
643	mesoplastic (5-25mm)	fragment	white	19.22	High-Density Polyethylene
644	mesoplastic (5-25mm)	fragment	white	18.57	High-Density Polyethylene
645	mesoplastic (5-25mm)	fragment	white	18.83	High-Density Polyethylene
646	mesoplastic (5-25mm)	fragment	black	6.92	High-Density Polyethylene
647	mesoplastic (5-25mm)	fragment	white	11.18	High-Density Polyethylene
648	microplastic (<5mm)	fragment	blue	13.26	High-Density Polyethylene
649	microplastic (<5mm)	fragment	white	16	High-Density Polyethylene

650	microplastic (<5mm)	fragment	white	8.38	High-Density Polyethylene
651	microplastic (<5mm)	fragment	white	24.2	High-Density Polyethylene
652	microplastic (<5mm)	fragment	yellow	4.73	High-Density Polyethylene
653	microplastic (<5mm)	fragment	white	10.37	High-Density Polyethylene
654	microplastic (<5mm)	fragment	white	16.07	High-Density Polyethylene
655	microplastic (<5mm)	fragment	white	7.43	High-Density Polyethylene
656	microplastic (<5mm)	fragment	white	5.34	High-Density Polyethylene
657	microplastic (<5mm)	fragment	white	7.72	High-Density Polyethylene
658	microplastic (<5mm)	fragment	white	8.8	High-Density Polyethylene
659	microplastic (<5mm)	fragment	blue	3.42	High-Density Polyethylene
660	microplastic (<5mm)	fragment	white	5.45	High-Density Polyethylene
661	microplastic (<5mm)	fragment	white	5	High-Density Polyethylene
662	microplastic (<5mm)	fragment	white	10.11	High-Density Polyethylene
663	mesoplastic (5-25mm)	fragment	black	8.49	High-Density Polyethylene
664	microplastic (<5mm)	fragment	blue	6.42	High-Density Polyethylene
665	microplastic (<5mm)	fragment	beige	8.65	High-Density Polyethylene
666	microplastic (<5mm)	fragment	white	10.52	High-Density Polyethylene
667	microplastic (<5mm)	fragment	blue	4.39	High-Density Polyethylene
668	microplastic (<5mm)	fragment	white	8.65	High-Density Polyethylene
669	microplastic (<5mm)	fragment	green	0.88	High-Density Polyethylene
670	microplastic (<5mm)	fragment	white	9.3	High-Density Polyethylene
671	microplastic (<5mm)	fragment	white	8.23	High-Density Polyethylene
672	microplastic (<5mm)	fragment	white	2.8	High-Density Polyethylene
673	microplastic (<5mm)	fragment	white	3.73	High-Density Polyethylene
674	microplastic (<5mm)	fragment	white	2.52	High-Density Polyethylene
675	microplastic (<5mm)	fragment	white	2.91	High-Density Polyethylene
676	microplastic (<5mm)	fragment	white	3.39	High-Density Polyethylene
677	macroplastic (>25mm)	line	white	2.6	High-Density Polyethylene
678	mesoplastic (5-25mm)	line	gray	0.97	High-Density Polyethylene
679	microplastic (<5mm)	fragment	white	2.98	High-Density Polyethylene
680	mesoplastic (5-25mm)	line	white	0.97	High-Density Polyethylene
681	microplastic (<5mm)	fragment	white	3.81	High-Density Polyethylene
682	microplastic (<5mm)	fragment	blue	6.04	High-Density Polyethylene
683	microplastic (<5mm)	fragment	blue	4.04	High-Density Polyethylene
684	microplastic (<5mm)	fragment	blue	1.05	High-Density Polyethylene
685	microplastic (<5mm)	fragment	blue	1.22	High-Density Polyethylene
686	microplastic (<5mm)	fragment	blue	0.52	High-Density Polyethylene
687	microplastic (<5mm)	fragment	blue	0.17	High-Density Polyethylene
688	microplastic (<5mm)	fragment	white	5.3	High-Density Polyethylene
689	microplastic (<5mm)	fragment	white	2.29	High-Density Polyethylene
690	microplastic (<5mm)	fragment	white	4.04	High-Density Polyethylene
691	microplastic (<5mm)	fragment	white	2.11	High-Density Polyethylene
692	microplastic (<5mm)	fragment	white	4.5	High-Density Polyethylene
693	microplastic (<5mm)	fragment	white	2.9	High-Density Polyethylene
694	microplastic (<5mm)	fragment	white	0.93	High-Density Polyethylene
695	microplastic (<5mm)	fragment	white	1.2	High-Density Polyethylene
696	microplastic (<5mm)	fragment	white	1.5	High-Density Polyethylene
697	microplastic (<5mm)	fragment	white	2.22	High-Density Polyethylene
698	microplastic (<5mm)	fragment	white	0.56	High-Density Polyethylene
699	microplastic (<5mm)	fragment	white	1.41	High-Density Polyethylene
700	microplastic (<5mm)	fragment	white	0.37	High-Density Polyethylene
701	microplastic (<5mm)	fragment	white	0.87	High-Density Polyethylene
702	microplastic (<5mm)	fragment	white	0.83	High-Density Polyethylene
703	macroplastic (>25mm)	line	white	1.2	Ethylene Vinyl Acetate
704	microplastic (<5mm)	line	orange	0.37	Ethylene Vinyl Acetate
705	microplastic (<5mm)	fragment	white	0.21	Ethylene Vinyl Acetate
706	mesoplastic (5-25mm)	fragment	green	16.57	Ethylene Vinyl Acetate
707	microplastic (<5mm)	fragment	green	2.49	Ethylene Vinyl Acetate

Table S3. Taxa, size, year, tow location (inside or outside of slick) and ingested particle traits of larval fish dissections.

Family	Taxa	Dissection ID	Year	Tow Location (Inside or Outside Slick)	Fish Size (mm, TL)	Plastic debris found in stomach	Item Count	Item shape	Item Color	Raman and FT-IR Material Identification
Balistidae	Balistidae	BAL-001	2016	Inside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-002	2016	Inside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-003	2017	Inside	22	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-004	2017	Outside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-005	2017	Inside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-006	2017	Inside	9	No	0	NA	NA	NA
Balistidae	Canthidermis maculata	BAL-007	2017	Inside	15	Yes	1	fiber	translucent	unknown material
Balistidae	Canthidermis maculata	BAL-008	2017	Inside	8	Yes	1	fiber	blue	anthropogenic cellulose
Balistidae	Balistidae	BAL-009	2017	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-010	2018	Inside	28	No	0	NA	NA	NA
Balistidae	Canthidermis maculata	BAL-011	2018	Inside	9	Yes	1	fiber	blue	anthropogenic cellulose
Balistidae	Balistidae	BAL-012	2018	Inside	8	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-013	2018	Inside	11	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-014	2018	Inside	14	No	0	NA	NA	NA
Balistidae	Canthidermis maculata	BAL-015	2018	Outside	6	Yes	1	fiber	translucent	anthropogenic cellulose
Balistidae	Balistidae	BAL-016	2016	Inside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-017	2016	Inside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-018	2017	Inside	6	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-019	2017	Inside	8	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-020	2017	Inside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-021	2017	Inside	12	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-022	2017	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-023	2017	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-024	2018	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-025	2018	Inside	15	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-026	2018	Inside	6	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-027	2018	Inside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-028	2016	Inside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-029	2016	Inside	6	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-030	2017	Inside	8	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-031	2017	Inside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-032	2017	Inside	12	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-033	2017	Inside	12	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-034	2017	Inside	8	No	0	NA	NA	NA
Balistidae	Canthidermis maculata	BAL-035	2018	Inside	11	Yes	1	fiber	blue	anthropogenic cellulose
Balistidae	Balistidae	BAL-036	2018	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-037	2018	Inside	12	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-038	2016	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-039	2017	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-040	2017	Inside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-041	2017	Inside	14	No	0	NA	NA	NA
Balistidae	Canthidermis maculata	BAL-042	2017	Inside	9	Yes	1	fiber	translucent	nylon 6
Balistidae	Balistidae	BAL-043	2017	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-044	2018	Inside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-045	2018	Inside	8	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-046	2018	Inside	11	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-047	2016	Inside	6	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-048	2017	Inside	7	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-049	2017	Inside	8	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-050	2017	Inside	13	No	0	NA	NA	NA

Balistidae	Canthidermis maculata	BAL-051	2005	Outside	18	Yes	2	microbead	yellow	unknown material
Balistidae	Balistidae	BAL-052	2011	Outside	11	No	0	NA	NA	NA
Balistidae	Canthidermis maculata	BAL-053	2011	Outside	12	Yes	1	fiber	translucent	anthropogenic cellulose
Balistidae	Balistidae	BAL-054	2011	Outside	11	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-055	2011	Outside	11	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-056	2011	Outside	12	No	0	NA	NA	NA
Balistidae	Canthidermis maculata	BAL-057	2011	Outside	12	Yes	1	fiber	blue	not analyzed
Balistidae	Balistidae	BAL-058	2011	Outside	11	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-059	2011	Outside	11	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-060	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-061	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-062	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-063	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-064	2006	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-065	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-066	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-067	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-068	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-069	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-070	2011	Outside	10	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-071	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-072	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-073	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-074	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-075	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-076	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-077	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-078	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-079	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-080	2011	Outside	8	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-081	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-082	2011	Outside	9	No	0	NA	NA	NA
Balistidae	Balistidae	BAL-083	2011	Outside	8	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-001	2018	Inside	27	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-002	2011	Inside	20	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-003	2011	Inside	25	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-004	2011	Inside	23	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-005	2011	Inside	21	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-006	2016	Inside	20	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-007	2016	Inside	11	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-008	2011	Inside	21	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-009	2011	Inside	22	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-010	2011	Inside	20	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-011	2017	Outside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-012	2017	Inside	16	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-013	2011	Inside	19	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-014	2011	Inside	22	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-015	2011	Inside	23	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-016	2011	Inside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-017	2011	Inside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-018	2011	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-019	2011	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-020	2011	Outside	19	No	0	NA	NA	NA

Carangidae	Scomberoides lysan	SCO-021	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-022	2011	Inside	19	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-023	2011	Inside	20	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-024	2016	Inside	25	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-025	2016	Inside	23	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-026	2016	Inside	28	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-027	2011	Outside	20	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-028	2011	Outside	22	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-029	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-030	2016	Inside	25	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-031	2016	Inside	18	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-032	2016	Inside	19	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-033	2016	Inside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-034	2006	Outside	16	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-035	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-036	2011	Inside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-037	2011	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-038	2011	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-039	2011	Inside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-040	2011	Inside	16	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-041	2011	Inside	16	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-042	2011	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-043	2011	Inside	15	Yes	1	fiber	blue	not analyzed
Carangidae	Scomberoides lysan	SCO-045	2017	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-046	2016	Inside	22	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-047	2016	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-048	2011	Outside	22	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-049	2011	Inside	14	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-050	2017	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-45	2011	Outside	14	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-46	2011	Outside	14	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-47	2011	Outside	11	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-48	2011	Outside	13	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-49	2011	Outside	14	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-50	2011	Outside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-51	2011	Outside	11	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-52	2011	Outside	13	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-53	2011	Outside	12	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-55	2018	Inside	15	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-56	2018	Inside	13	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-57	2018	Inside	14	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-58	2018	Inside	13	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-59	2018	Inside	12	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-60	2011	Outside	14	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-61	2011	Outside	13	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-62	2011	Outside	10	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-63	2011	Outside	17	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-64	2011	Outside	16	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-65	2011	Outside	14	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-66	2011	Outside	12	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-67	2011	Outside	12	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-68	2011	Outside	13	No	0	NA	NA	NA
Carangidae	Scomberoides lysan	SCO-69	2011	Outside	13	No	0	NA	NA	NA

Carangidae	Seriola dumerili	SER-002	2009	Inside	35	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-003	2009	Inside	35	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-004	2009	Inside	31	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-005	2009	Inside	30	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-006	2018	Inside	30	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-007	2018	Inside	26	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-008	2018	Inside	25	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-009	2018	Inside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-010	2011	Inside	28	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-011	2018	Inside	20	Yes	1	fiber	red	anthropogenic cellulose
Carangidae	Seriola dumerili	SER-012	2018	Inside	16	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-013	2018	Inside	26	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-014	2018	Inside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-015	2009	Inside	30	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-016	2009	Inside	35	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-017	2009	Inside	25	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-018	2009	Inside	22	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-019	2011	Inside	25	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-020	2011	Inside	23	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-021	2011	Inside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-022	2011	Inside	19	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-023	2009	Outside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-024	2009	Inside	26	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-025	2009	Inside	25	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-026	2009	Inside	23	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-027	2009	Inside	17	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-028	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-029	2005	Outside	15	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-030	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-031	2011	Outside	15	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-032	2011	Outside	15	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-033	2011	Outside	17	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-034	2005	Inside	25	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-035	2005	Inside	18	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-036	2011	Outside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-037	2017	Inside	30	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-038	2017	Inside	33	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-039	2017	Inside	32	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-040	2017	Inside	31	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-045	2006	Outside	21	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-046	2006	Outside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-047	2006	Outside	18	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-048	2006	Outside	15	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-049	2006	Outside	16	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-050	2006	Outside	14	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-051	2006	Outside	14	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-052	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-053	2011	Outside	14	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-054	2011	Outside	15	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-055	2011	Outside	24	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-056	2011	Outside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-057	2011	Outside	19	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-058	2011	Outside	19	No	0	NA	NA	NA

Carangidae	Seriola dumerili	SER-059	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-060	2011	Outside	19	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-061	2011	Outside	17	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-062	2011	Outside	20	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-063	2011	Outside	18	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-064	2011	Outside	17	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-65	2018	Inside	16	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-66	2018	Inside	11	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-67	2018	Inside	11	No	0	NA	NA	NA
Carangidae	Seriola dumerili	SER-68	2018	Inside	11	Yes	1	fiber	translucent	not analyzed
Coryphaenidae	C. equicellis	COR-001	2011	Inside	47	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-002	2011	Outside	43	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-003	2011	Inside	45	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-004	2011	Outside	30	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-005	2017	Inside	22	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-006	2017	Inside	32	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-007	2011	Inside	27	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-008	2011	Inside	34	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-009	2011	Outside	36	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-010	2011	Inside	30	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-011	2018	Inside	51	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-012	2009	Inside	22	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-013	2011	Outside	26	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-014	2011	Outside	20	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-015	2005	Outside	23	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-016	2011	Inside	26	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-017	2017	Inside	19	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-018	2011	Inside	24	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-019	2011	Inside	26	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-020	2017	Inside	24	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-021	2017	Inside	22	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-022	2017	Inside	26	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-023	2017	Inside	19	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-024	2011	Inside	23	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-025	2011	Inside	23	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-026	2006	Inside	19	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-027	2006	Inside	23	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-028	2006	Inside	23	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-029	2005	Inside	22	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-030	2009	Inside	18	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-031	2011	Outside	20	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-032	2017	Inside	16	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-033	2017	Inside	17	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-034	2017	Inside	24	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-035	2016	Inside	21	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-036	2009	Outside	24	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-037	2011	Outside	29	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-038	2011	Outside	30	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-039	2011	Outside	18	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-040	2017	Inside	19	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-041	2006	Inside	24	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-042	2006	Inside	22	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-043	2011	Inside	19	No	0	NA	NA	NA

Coryphaenidae	C. equicellis	COR-044	2011	Inside	19	No	0	NA	NA	NA
Coryphaenidae	C. hippurus	COR-045	2016	Inside	19	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-046	2017	Inside	18	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-047	2017	Inside	21	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-048	2017	Inside	17	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-049	2005	Inside	16	No	0	NA	NA	NA
Coryphaenidae	C. equicellis	COR-050	2011	Inside	23	No	0	NA	NA	NA
Coryphaenidae	Coryphaena hippurus	COR-51	2011	Outside	15	No	0	NA	NA	NA
Coryphaenidae	Coryphaena hippurus	COR-52	2011	Outside	15	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-53	2011	Outside	20	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-54	2011	Outside	22	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-55	2011	Outside	22	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-56	2011	Outside	21	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-57	2011	Outside	22	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-58	2011	Outside	19	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-59	2011	Outside	20	No	0	NA	NA	NA
Coryphaenidae	Coryphaena hippurus	COR-60	2018	Outside	13	No	0	NA	NA	NA
Coryphaenidae	Coryphaena hippurus	COR-61	2018	Outside	13	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-62	2011	Outside	21	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-63	2011	Outside	21	Yes	1	fiber	translucent	not analyzed
Coryphaenidae	Coryphaena hippurus	COR-64	2011	Outside	13	No	0	NA	NA	NA
Coryphaenidae	Coryphaena hippurus	COR-65	2006	Outside	19	No	0	NA	NA	NA
Coryphaenidae	Coryphaena hippurus	COR-66	2006	Outside	15	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-67	2011	Outside	20	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-68	2011	Outside	19	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-69	2011	Outside	18	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-70	2011	Outside	17	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-71	2011	Outside	14	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-72	2011	Outside	16	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-73	2011	Outside	18	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-74	2011	Outside	15	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-75	2018	Outside	20	No	0	NA	NA	NA
Coryphaenidae	Coryphaena hippurus	COR-76	2011	Outside	13	No	0	NA	NA	NA
Coryphaenidae	Coryphaena equiselis	COR-77	2018	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-001	2017	Inside	25	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-002	2011	Inside	39	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-003	2017	Inside	24	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-004	2017	Inside	37	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-005	2017	Inside	25	No	0	NA	NA	NA
Exocoetidae	Parexocoetus brachypterus	EXO-006	2017	Inside	24	Yes	1	fiber	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-007	2017	Inside	17	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-008	2017	Inside	23	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-009	2017	Inside	20	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-010	2017	Inside	24	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-011	2017	Inside	19	No	0	NA	NA	NA
Exocoetidae	Cheilopogon sp.	EXO-012	2017	Inside	10	Yes	1	foam fragment	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-013	2011	Outside	23	No	0	NA	NA	NA

Exocoetidae	Parexocoetus brachypterus	EXO-014	2016	Inside	16	Yes	3	fiber	2 blue, 1 black	BlueFiber#1: polyethylene terephthalate (blue pigmented); BlueFiber#2: anthropogenic cellulose (blue pigmented); BlackFiber#1: anthropogenic pigment on unknown material (black)
Exocoetidae	Exocoetidae	EXO-015	2006	Outside	19	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-016	2006	Outside	18	No	0	NA	NA	NA
Exocoetidae	Cheilopogon furcatus	EXO-017	2017	Inside	19	Yes	1	fiber	blue	anthropogenic cellulose
Exocoetidae	Exocoetidae	EXO-018	2017	Inside	16	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-019	2009	Inside	13	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-020	2017	Inside	21	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-021	2017	Inside	19	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-022	2017	Inside	22	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-023	2017	Outside	12	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-024	2006	Inside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetus sp.	EXO-025	2006	Inside	22	Yes	1	fiber	blue	anthropogenic cellulose
Exocoetidae	Cheilopogon sp.	EXO-026	2017	Inside	17	Yes	1	fiber	translucent	anthropogenic cellulose
Exocoetidae	Cheilopogon sp.	EXO-027	2006	Outside	15	Yes	1	fiber	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-028	2006	Outside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-029	2009	Inside	11	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-030	2006	Outside	17	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-031	2006	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-032	2009	Outside	30	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-033	2009	Inside	17	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-034	2011	Inside	24	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-035	2011	Inside	19	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-036	2011	Inside	21	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-037	2017	Inside	6	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-038	2006	Outside	30	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-039	2006	Outside	16	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-040	2006	Outside	10	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-041	2017	Outside	12	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-042	2017	Outside	9	No	0	NA	NA	NA
Exocoetidae	Exocoetus sp.	EXO-043	2006	Inside	18	Yes	1	fiber	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-044	2017	Inside	21	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-045	2017	Inside	12	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-046	2006	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-047	2017	Inside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-048	2017	Inside	16	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-050	2006	Outside	15	No	0	NA	NA	NA
Exocoetidae	Prognichthys sealei	EXO-051	2016	Inside	14	Yes	1	fiber	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-052	2018	Inside	25	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-053	2018	Inside	19	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-054	2017	Inside	10	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-055	2018	Outside	23	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-056	2018	Outside	22	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-057	2017	Inside	10	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-058	2018	Inside	14	No	0	NA	NA	NA
Exocoetidae	Prognichthys sealei	EXO-059	2018	Inside	19	Yes	1	fiber	translucent	not analyzed
Exocoetidae	Exocoetidae	EXO-060	2018	Inside	27	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-061	2018	Inside	14	No	0	NA	NA	NA

Exocoetidae	Exocoetidae	EXO-062	2018	Inside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-063	2018	Inside	12	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-064	2018	Inside	13	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-065	2018	Inside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-066	2018	Inside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-067	2018	Inside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-068	2018	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-069	2018	Inside	14	No	0	NA	NA	NA
Exocoetidae	Paraexocoetus brachypterus	EXO-070	2018	Inside	14	No	0	NA	NA	NA
Exocoetidae	Prognichthys sealei	EXO-071	2016	Inside	7	Yes	1	fiber	blue	anthropogenic cellulose
Exocoetidae	Exocoetidae	EXO-072	2017	Inside	17	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-073	2017	Inside	19	No	0	NA	NA	NA
Exocoetidae	Exocoetus sp.	EXO-074	2017	Inside	16	Yes	1	fiber	red	rayon
Exocoetidae	Cheilopogon sp.	EXO-075	2017	Inside	21	Yes	1	fiber	black	not analyzed
Exocoetidae	Exocoetidae	EXO-076	2017	Inside	16	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-077	2017	Inside	17	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-078	2017	Inside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-079	2017	Inside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-080	2017	Inside	16	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-081	2017	Inside	18	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-082	2005	Inside	20	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-083	2005	Inside	16	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-084	2018	Inside	9	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-085	2018	Inside	7	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-086	2018	Inside	7	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-087	2017	Inside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-088	2017	Inside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-089	2017	Inside	16	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-090	2017	Inside	20	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-091	2017	Inside	13	No	0	NA	NA	NA
Exocoetidae	Prognichthys sealei	EXO-092	2017	Inside	10	Yes	1	fiber	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-093	2017	Inside	17	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-094	2018	Inside	11	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-095	2018	Inside	8	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-096	2017	Inside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-097	2017	Inside	9	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-098	2017	Inside	8	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-099	2018	Inside	18	No	0	NA	NA	NA
Exocoetidae	Cheilopogon furcatus	EXO-100	2018	Inside	16	Yes	1	fiber	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-101	2018	Inside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-102	2018	Outside	20	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-103	2018	Inside	10	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-104	2018	Inside	15	No	0	NA	NA	NA
Exocoetidae	Cheilopogon sp.	EXO-105	2018	Inside	14	Yes	1	fiber	red	anthropogenic cellulose
Exocoetidae	Exocoetidae	EXO-106	2018	Inside	7	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-107	2011	Outside	34	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-108	2011	Outside	24	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-109	2011	Outside	20	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-110	2011	Outside	21	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-111	2009	Inside	30	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-112	2009	Inside	22	Yes	1	fiber	blue	not analyzed
Exocoetidae	Exocoetidae	EXO-113	2011	Inside	38	Yes	1	fiber	blue	not analyzed

Exocoetidae	Exocoetidae	EXO-114	2004	Inside	41	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-115	2004	Inside	37	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-116	2018	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-117	2009	Outside	21	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-118	2009	Outside	15	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-119	2009	Outside	19	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-120	2011	Outside	25	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-121	2011	Outside	10	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-122	2011	Outside	11	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-123	2009	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-124	2016	Outside	8	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-125	2005	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-126	2005	Outside	12	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-127	2009	Outside	13	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-128	2009	Outside	13	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-129	2009	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-130	2009	Outside	19	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-131	2009	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-132	2009	Outside	14	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-133	2011	Outside	8	No	0	NA	NA	NA
Exocoetidae	Exocoetidae	EXO-133	2018	Outside	14	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-001	2017	Inside	14	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-002	2017	Inside	13	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-003	2017	Inside	12	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-004	2017	Inside	12	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-005	2006	Outside	35	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-006	2004	Outside	5	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-007	2004	Inside	13	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-008	2004	Outside	5	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-010	2004	Outside	8	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-011	2004	Inside	20	Yes	1	fiber	blue	anthropogenic cellulose
Istiophoridae	Istiophoridae	IST-012	2004	Inside	13	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-014	2004	Inside	8	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-016	2003	Inside	24	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-017	2004	Outside	7	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-018	2004	Outside	5	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-019	2003	Outside	15	Yes	1	fiber	translucent	not analyzed
Istiophoridae	Istiophoridae	IST-021	2004	Outside	7	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-022	2003	Outside	16	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-023	2004	Outside	7	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-024	2003	Outside	24	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-026	2003	Outside	9	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-027	2004	Outside	6	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-028	2003	Inside	20	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-029	2004	Outside	10	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-030	2003	Inside	22	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-031	2004	Outside	7	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-032	2004	Outside	9	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-033	2004	Outside	6	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-034	2004	Outside	6	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-035	2003	Inside	27	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-037	2003	Inside	15	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-038	2003	Inside	18	No	0	NA	NA	NA

Istiophoridae	Istiophoridae	IST-039	2000	Inside	27	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-040	2003	Outside	20	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-041	2003	Outside	14	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-042	2000	Outside	17	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-043	2003	Inside	10	Yes	1	fiber	translucent	unknown cellulose
Istiophoridae	Tetrapturus angustirostris	IST-044	2003	Outside	13	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-045	2003	Outside	13	No	0	NA	NA	NA
Istiophoridae	Tetrapturus angustirostris	IST-046	2003	Outside	16	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-047	2001	Outside	17	Yes	1	fiber	blue	anthropogenic pigment on unknown material
Istiophoridae	Tetrapturus angustirostris	IST-049	2003	Outside	29	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-050	2000	Inside	14	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-051	2000	Outside	13	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-052	2003	Outside	10	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-53	2003	Outside	11	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-55	2000	Inside	27	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-56	2000	Outside	14	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-57	2003	Outside	14	Yes	1	fiber	blue	anthropogenic cellulose
Istiophoridae	Istiophoridae	IST-58	2003	Outside	12	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-59	1999	Inside	24	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-60	2003	Outside	16	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-61	2003	Inside	14	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-62	2003	Outside	12	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-63	1999	Outside	18	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-64	2004	Outside	7	No	0	NA	NA	NA
Istiophoridae	Istiophoridae	IST-65	2002	Inside	16	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-001	2018	Inside	40	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-002	2017	Inside	23	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-003	2017	Inside	22	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-004	2017	Outside	13	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-005	2017	Inside	22	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-006	2017	Inside	25	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-007	2018	Outside	15	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-008	2018	Outside	11	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-009	2017	Inside	12	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-010	2017	Outside	6	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-011	2017	Outside	11	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-012	2017	Inside	10	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-013	2017	Inside	12	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-014	2017	Inside	13	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-015	2016	Outside	12	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-016	2016	Outside	11	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-017	2016	Inside	9	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-018	2016	Outside	11	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-019	2017	Inside	8	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-020	2017	Inside	23	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-021	2017	Inside	14	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-022	2017	Inside	12	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-024	2011	Inside	16	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-025	2006	Outside	14	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-026	2016	Inside	10	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-027	2009	Outside	13	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-028	2005	Inside	10	No	0	NA	NA	NA

Mullidae	Mullidae	MUL-029	2011	Outside	11	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-030	2011	Inside	16	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-031	2009	Outside	18	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-032	2011	Outside	15	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-033	2006	Outside	13	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-034	2006	Inside	16	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-035	2011	Inside	13	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-036	2006	Outside	11	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-037	2006	Outside	13	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-038	2006	Outside	14	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-039	2009	Inside	15	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-040	2011	Outside	14	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-041	2011	Outside	14	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-042	2011	Inside	14	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-043	2011	Inside	15	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-044	2011	Outside	16	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-045	2011	Outside	16	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-046	2011	Outside	11	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-047	2011	Outside	19	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-048	2011	Outside	18	No	0	NA	NA	NA
Mullidae	Mullidae	MUL-049	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-001	2016	Inside	25	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-002	2016	Inside	18	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-003	2016	Inside	18	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-004	2016	Inside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-005	2016	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-006	2016	Inside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-007	2016	Inside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-008	2016	Inside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-009	2016	Inside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-010	2016	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-011	2016	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-012	2016	Inside	12	Yes	1	fiber	black	not analyzed
Pomacentridae	Abudefduf sp.	ABU-013	2016	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-014	2017	Inside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-015	2017	Inside	17	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-016	2017	Inside	17	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-017	2017	Inside	19	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-018	2017	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-019	2017	Inside	17	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-020	2017	Outside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-021	2017	Inside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-022	2017	Inside	22	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-023	2018	Inside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-024	2018	Inside	16	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-025	2018	Inside	20	Yes	1	fiber	blue	anthropogenic cellulose
Pomacentridae	Abudefduf sp.	ABU-026	2018	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-027	2016	Inside	26	Yes	1	fiber	translucent	polyester
Pomacentridae	Abudefduf sp.	ABU-028	2016	Inside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-029	2016	Inside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-030	2016	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-031	2016	Inside	22	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-032	2016	Inside	13	No	0	NA	NA	NA

Pomacentridae	Abudefduf sp.	ABU-033	2016	Outside	18	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-034	2017	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-035	2017	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-036	2017	Inside	22	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-037	2018	Inside	16	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-038	2018	Inside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-039	2018	Inside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-040	2018	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-041	2018	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-042	2018	Inside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-043	2016	Inside	24	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-044	2016	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-045	2016	Inside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-046	2016	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-047	2016	Inside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-048	2017	Inside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-049	2018	Inside	16	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-050	2018	Inside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-051	2009	Outside	16	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-052	2009	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-053	2009	Outside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-054	2009	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-055	2009	Outside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-056	2011	Outside	25	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-057	2011	Outside	16	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-058	2011	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-059	2011	Outside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-060	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-061	2011	Outside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-062	2011	Outside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-063	2011	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-064	2011	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-065	2011	Outside	15	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-066	2011	Outside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-067	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-068	2011	Outside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-069	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-070	2011	Outside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-071	2011	Outside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-072	2011	Outside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-073	2011	Outside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-074	2011	Outside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-075	2011	Outside	13	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-076	2009	Outside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-077	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-078	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-079	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-080	2011	Outside	12	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-081	2011	Outside	14	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-082	2011	Outside	11	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-083	2011	Outside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-084	2011	Outside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-085	2011	Outside	10	No	0	NA	NA	NA

Pomacentridae	Abudefduf sp.	ABU-086	2011	Outside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-087	2011	Outside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-088	2011	Outside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-089	2011	Outside	10	No	0	NA	NA	NA
Pomacentridae	Abudefduf sp.	ABU-90	2011	Outside	11	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-001	2004	Inside	25	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-002	2004	Outside	23	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-003	2004	Inside	20	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-004	2004	Inside	27	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-005	2003	Inside	19	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-006	2002	Outside	24	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-007	2001	Inside	19	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-008	2002	Outside	34	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-009	2001	Inside	48	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-010	2000	Inside	41	Yes	1	fiber	translucent	not analyzed
Xiphiidae	Xiphias gladius	XIP-012	2003	Outside	28	Yes	1	fiber	blue	anthropogenic cellulose
Xiphiidae	Xiphias gladius	XIP-013	2002	Inside	38	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-014	2002	Outside	35	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-015	2001	Inside	41	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-016	1997	Outside	25	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-023	1997	Outside	40	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-031	2009	Inside	40	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-032	2009	Outside	21	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-033	2009	Outside	30	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-034	2009	Outside	20	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-035	1998	Inside	24	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-036	2009	Outside	30	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-037	2000	Outside	20	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-038	2001	Inside	28	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-039	2001	Inside	60	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-040	2001	Inside	21	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-041	2000	Outside	24	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-042	2000	Outside	52	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-043	2000	Inside	32	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-044	2000	Outside	30	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-045	2000	Outside	32	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-046	2001	Outside	32	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-048	2000	Inside	28	No	0	NA	NA	NA
Xiphiidae	Xiphias gladius	XIP-049	1997	Outside	32	Yes	1	fiber	blue	not analyzed