

## Supplementary Materials Table S1

This appendix reports the form used to collect the metadata and the litter categories during the data collection process.

### Data form (NOAA method)

Overview of survey location			
Shoreline Debris Debris density data sheet	Organization		
	Surveyor name		
	Phone number		
	Date		Date of this survey

Shoreline code (ID)			Unique code for a beach
Shoreline name			Name for section of shoreline (e.g, beach name, park)
Location			Ward, District, Province
Time start/end	Start	End	
Coordinates of start of shoreline site	Longitude-----	Latitude-----	Record in both corners if width > 6m. If transect, record at water's edge.
Coordinates of end of shoreline site	Longitude	Latitude	Record in both corners if width > 6m. If transect, record at back of shoreline.
Photo			Photo ID
Characteristics of shoreline			
Width of beach (100m)			Length measured along the midpoint of the coast (in meters)
Substratum type			Sand, Gravel, Coral, ...
Substrate uniformity			Percent coverage of the main substrate type (%)
Tidal range			Maximum & Minimum vertical tidal range. Use tide chart (usually in feet)
Tidal distance			Horizontal distance (in meters) from low – to high – tide line. Measure on beach at low and high tides or estimate based on wrack lines.

Back of shoreline			Describe landward limit (e.g; vegetation, rock wall, cliff dunes, parking lot).
Aspect			Direction you are facing when you look out at the water (e.g: northeast)
Location & land use	Resident	Not used yet	
	Tourist		
	Agriculture		
	Aquaculture		
Nearest town			Name of nearest town
Nearest town distance			Distance to nearest town (km)
Nearest town direction			Direction to nearest town (cardinal direction)
Nearest river name			If applicable, name of nearest river or stream. If blank, assumed to mean no inputs nearby.
Nearest river distance			(km)
Nearest river direction			Direction to nearest river/stream
Rive/creek input to beach	Yes	No	Whether nearest river/stream has an outlet within this shoreline section
Pipe or drain input	Yes	No	If there is a storm drain or channelized outlet within shoreline section
Notes: (including description, landmarks, fishing activity, etc).			

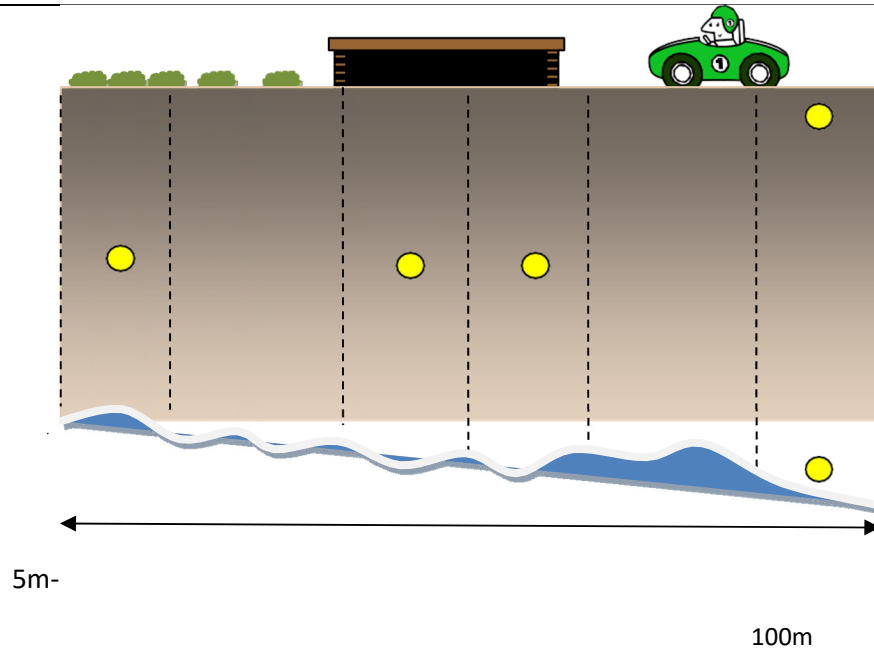


Figure. Example of a shoreline section (100 m) with yellow circles indicating marked GPS coordinates. Width determines location of GPS coordinates.

#	Transect	GPS	Characteristics
1	0-5 m		
2	5-10 m		
3	10-15 m		
4	15-20 m		
5	20-25 m		
6	25-30 m		
7	30-35 m		
8	35-40 m		
9	40-45 m		
10	45-50 m		
11	50-55 m		
12	55-60 m		
13	60-65 m		
14	65-70 m		
15	70-75 m		
16	75-80 m		

17	80-85 m		
18	85-90 m		
19	90-95 m		
20	95-100 m		

### PLASTIC CHARACTERISATION DATA SHEET

Shoreline name			Shoreline's local name
Transect ID			
Time	Start	End	
Date			
Mega plastic	Yes	No	
Photo #			Photo ID of plastic pieces

ID	Types	Quantity	Weight
P	PLASTIC		
1	Hard plastic fragments		
2	Soft plastic fragments		
3	Film plastic fragments		
4	Crisp/Sweet packages		
5	Food wrappers		
6	Other wrappers		
7	Beverage bottles (PET) size 1 (0 – 100 ml)		
8	Beverage bottles (PET) size 2 (> 100 ml)		
9	Other Beverage bottles (HDPE other plastic, etc.)		
10	Container bottles		
11	Cleaner and cosmetic bottles (e.g: shampoo bottles, cosmetic jars, shower gel bottle – Size 1 (0 – 100 ml)		
12	Cleaner and cosmetic bottles (e.g: shampoo bottles, cosmetic jars, shower gel bottle – Size 2 (> 100 ml)		
13	Bottle caps or lids (HDPE)		

ID	Types	Quantity	Weight
14	Cigarette butts		
15	Lighter		
16	Plastic bags size 1 (0 – 5 kg)		
17	Plastic bags size 2 (> 5 kg)		
18	Styrofoam food containers		
19	Single use plastic products (Cups, Utensils,...) (PET)		
20	Single use plastic products (Cups and cutlery e.g knives, forks, spoons, etc.) (PP)		
21	Straws		
22	Fertilizer bags or containers		
23	Plastic strings, cords and ropes		
24	Personal hygiene products		
25	Medical products		
26	Fishing gear 1: Fishing plastic ropes, net pieces, fishing lures & lines, hard plastic floats		
27	Fishing gear 2: Styrofoam, Buoys & Floats		
28	Other plastic		
M	Metal		
G	Glass		
R	Rubber		
P	Paper		
C	Cloth/fabric		
O	Mixed waste		
L	Other litter		

## Supplementary Materials Table S2

Macro marine litter classification for Vietnamese coast. Empty spaces represent zero values

	HP_ C1	HP_ C2	H_ C1	DN_ C1	DN_ C2	QN_ C1	NT_C 1_n1	CR_ C1	CR_ C2	HCM_ C1	ST_ C1	ST_ C2	PQ_ C1	PQ_ C2
Hard plastic fragments	48	20	460	36	12	99	20	16	29	233	7	230	29	81
Soft plastic fragments	49		278	50	32	468	34	715	403	39	59	1443	108	72
Film plastic fragments	3			1	14							66		
Crisp/Sweet packages	49	12	98	13	10	69	17	77	91	36		42	51	17
Food wrappers	22	8	49	2	1	178	3	11	23	9	7	69	112	37
Other wrappers	15	25	15	13	12	71	7	4	13	86	3	116	60	6
Beverage bottles (PET) size 1	7		6	5	6			7	4			3	4	
Beverage bottles (PET) size 2				3					1	1				
Other Beverage bottles	6	2		1					3				6	
Containers bottles				2			1		2			1		
Cleaner and cosmetics bottles							1	1	1	4			1	2

size 1

Cleaner  
and  
cosmetic  
s bottles  
size 2

Bottle caps	12	9	44	18	3	46		12	50	48		4	23	44
Cigarette butts	14	3	1	46	15		9	1	1	38			2	61
Lighters	4	2	12	4		23		2	20	16		2	3	6
Plastic bags size 1 (0-5kg)	257	56	171	7	16	248	1	65	192	109	1	99	194	64
Plastic bags size 2 (>5kg)			9		2	3		67	381	16		13	8	3
Styrofoam food containers	28	4	27	163	15	19	126	18	5	680	39	68	161	62
Cups, Utensils, .. (PET)	2	3	107	8	13	102	5	23	56		1	36	45	1
Cups, Utensils, ..(PP)	26	5	31		2	37		3	8	69		1	77	39
Straws	16	2	509	18	9	160	14	12	51	50	1	3	143	35
Fertilizer bags or containers		6	3		1	16		42	44	13	13	34	9	5
Plastic strings, cords and ropes	52	55	33	5	12	74	10	7	81	32		53	32	53
Personal hygiene products	9	2	4	3	2	3	5	2	3	11	1	8	1	11
Medical	8	3	12	2	3	7	2	16	17	29		33	1	5

products

Fishing gear 1:	125	55	772	13	24	142	2	890	160	965	3	119	434	136
Fishing gear 2:	289	97	62	465	10	677	54	14	13	179	95	512	402	40
Other plastics	16	23	117	5	21	230	20	30	19	53	4	5	36	7
Metal	53	21	6	1	2	3				6	1	8	15	14
Glass	2	10	16	1		33				8	4	5	21	7
Rubber	17	4	2	1	2	1	7			20	2	5	2	42
Paper/wood	3	1			4					19				42
Textile	24	2		2	4	7				28	4	124	1	14
Other litter	35	40	3	7	2	5	3			35	1	5		22

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### Supplementary Materials Table S3

Top 10 items for each survey with number of items collected and its percentage over the total amount of litter items collected during the survey

Hai Phong – Bai Ben Pha Got (HP_C1)		Hai Phong – Bai Do Son (HP_C2)	
Fishing gear 2: Polystyrenes – EPS, buoys & floats	24.27%	Fishing gear 2: Polystyrenes – EPS, buoys & floats	20.64%
Plastic bags size 1 (0-5kg)	21.58%	Plastic bags size 1 (0-5kg)	11.91%
Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	10.50%	Plastic strings, cords and ropes	11.70%
Metal	4.45%	Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	11.70%
Plastic strings, cords and ropes	4.37%	Other litter	8.51%
Soft plastic fragments (mostly from plastic bag fragments)	4.11%	Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	5.32%
Crisp/Sweet packages	4.11%	Other plastics (slippers, sanitary products, diaper, etc.)	4.89%
Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	4.03%	Metal	4.47%
Other litter	2.94%	Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	4.26%
Styrofoam food containers	2.35%	Crisp/Sweet packages	2.55%

Hue – Bien Thuan An (H_C1)		Da Nang – Bai Bien Nam O (DN_C1)	
Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	27.10%	Fishing gear 2: Polystyrenes – EPS, buoys & floats	52.13%
Straws	17.87%	Styrofoam food containers	18.27%
Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	16.15%	Soft plastic fragments (mostly from plastic bag fragments)	5.61%
Soft plastic fragments (mostly from plastic bag fragments)	9.76%	Cigarette butts	5.16%
Plastic bags size 1 (0-5kg)	6.00%	Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	4.04%
Other plastics (slippers, sanitary products, diaper, etc.)	4.11%	Bottle caps (HDPE)	2.02%
Cups, Utensils, ect. (PET)	3.76%	Straws	1.68%
Crisp/Sweet packages	3.44%	Crisp/Sweet packages	1.46%
Fishing gear 2: Polystyrenes – EPS, buoys & floats	2.18%	Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	1.46%
Food wrappers	1.72%	Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	1.46%

Da Nang – Bai Bien Dong (DN_C2)		Quang Nam – Bien Rang (QN_C1)	
Soft plastic fragments (mostly from plastic bag fragments)	12.85%	Fishing gear 2: Polystyrenes – EPS, buoys & floats	24.87%
Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	9.64%	Soft plastic fragments (mostly from plastic bag fragments)	17.19%
Other plastics (slippers, sanitary products, diaper, etc.)	8.43%	Plastic bags size 1 (0-5kg)	9.11%
Plastic bags size 1 (0-5kg)	6.43%	Other plastics (slippers, sanitary products, diaper, etc.)	8.45%
		Food wrappers	6.54%

Cigarette butts	6.02%	Straws	5.88%
Styrofoam food containers	6.02%	Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	5.22%
Film plastic fragments	5.62%	Cups, Utensils, etc. (PET)	3.75%
Cups, Utensils, etc. (PET)	5.22%	Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	3.64%
Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	4.82%	Plastic strings, cords and ropes	2.72%
Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	4.82%		

Nha Trang – Bien Vinh Nguyen (NT_C1)		Cam Ranh – Bien My Ca (CR_C1)	
Styrofoam food containers	36.95%	Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	40.18%
Fishing gear 2: Polystyrenes – EPS, buoys & floats	15.84%	Soft plastic fragments (mostly from plastic bag fragments)	32.28%
Soft plastic fragments (mostly from plastic bag fragments)	9.97%	Crisp/Sweet packages	3.48%
Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	5.87%	Plastic bags size 2 (>5kg)	3.21%
Other plastics (slippers, sanitary products, diaper, etc.)	5.87%	Plastic bags size 1 (0-5kg)	3.02%
Crisp/Sweet packages	4.99%	Fertilizer bags or containers	2.93%
Straws	4.11%	Other plastics (slippers, sanitary products, diaper, etc.)	2.39%
Plastic strings, cords and ropes	2.93%	Cups, Utensils, etc. (PET)	1.90%
Cigarette butts	2.64%	Styrofoam food containers	1.35%
Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	2.05%	Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	1.04%

Cam Ranh – Bien Binh Lap (CR_C2)		Ho Chi Minh – Bien 30/4 (HCM_C1)	
Soft plastic fragments (mostly from plastic bag fragments)	23.39%	Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	34.07%
Plastic bags size 2 (>5kg)	22.11%	Styrofoam food containers	24.01%
Plastic bags size 1 (0-5kg)	11.14%	Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	
Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	9.29%	Fishing gear 2: Polystyrenes – EPS, buoys & floats	8.23%
Crisp/Sweet packages	5.28%	Plastic bags size 1 (0-5kg)	6.32%
Plastic strings, cords and ropes	4.70%	Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	3.85%
Cups, Utensils, etc. (PET)	3.25%	Cups, Utensils, etc. (PP)	3.04%
Straws	2.96%	Other plastics (slippers, sanitary products, diaper, etc.)	1.87%
Bottle caps (HDPE)	2.90%	Straws	1.77%
Fertilizer bags or containers	2.55%	Bottle caps (HDPE)	1.69%

Soc Trang – Bien Ho Be (ST_C1)		Soc Trang – Bien Lai Hoa (ST_C2)	
Fishing gear 2: Polystyrenes – EPS, buoys & floats	38.31%	Soft plastic fragments (mostly from plastic bag fragments)	46.38%
Soft plastic fragments (mostly from plastic bag fragments)	23.79%	Fishing gear 2: Polystyrenes – EPS, buoys & floats	16.46%

Styrofoam food containers	15.73%	Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	7.39%
Fertilizer bags or containers	5.24%	Textile	3.99%
Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	2.82%	Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	3.83%
Food wrappers	2.82%	Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	3.73%
Other plastics (slippers, sanitary products, diaper, etc.)	1.61%	Plastic bags size 1 (0-5kg)	3.18%
Glass	1.61%	Food wrappers	2.22%
Textile	1.61%	Styrofoam food containers	2.19%
Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	1.21%	Film plastic fragments	2.12%

Phu Quoc – Bai Truong (PQ_C1)		Phu Quoc – Bai Sao (PQ_C2)	
Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	21.89%	Fishing gear 1: Fishing plastic rope, net pieces, fishing lures & lines, hard plastic floats	14.66%
Fishing gear 2: Polystyrenes – EPS, buoys & floats	20.27%	Hard plastic fragments (from plastic toy, kitchenware, unidentified objects)	8.73%
Plastic bags size 1 (0-5kg)	9.78%	Soft plastic fragments (mostly from plastic bag fragments)	7.76%
Styrofoam food containers	8.12%	Plastic bags size 1 (0-5kg)	6.90%
Straws	7.21%	Styrofoam food containers	6.68%
Food wrappers	5.65%	Cigarette butts	6.57%
Soft plastic fragments (mostly from plastic bag fragments)	5.45%	Plastic strings, cords and ropes	5.71%
Cups, Utensils, etc. (PP)	3.88%	Bottle caps (HDPE)	4.74%
Other wrappers (Wet tissue wrapper, chopstick wrapper, etc.)	3.03%	Rubber	4.53%
Crisp/Sweet packages	2.57%	Paper/wood	4.53%